Journal of Social Sciences & Humanities

About the Journal

Overview

Pertanika Journal of Social Sciences & Humanities (JSSH) is the official journal of Universiti Putra Malaysia published by UPM Press. It is an open-access online scientific journal which is free of charge. It publishes the scientific outputs. It neither accepts nor commissions third party content.

Recognized internationally as the leading peer-reviewed interdisciplinary journal devoted to the publication of original papers, it serves as a forum for practical approaches to improving quality in issues pertaining to social and behavioural sciences as well as the humanities.

JSSH is a **quarterly** (*March, June, September* and *December*) periodical that considers for publication original articles as per its scope. The journal publishes in **English** and it is open to authors around the world regardless of the nationality.

The Journal is available world-wide.

Aims and scope

Pertanika Journal of Social Sciences & Humanities aims to develop as a pioneer journal for the social sciences with a focus on emerging issues pertaining to the social and behavioural sciences as well as the humanities.

Areas relevant to the scope of the journal include Social Sciences—Accounting, anthropology, Archaeology and history, Architecture and habitat, Consumer and family economics, Economics, Education, Finance, Geography, Law, Management studies, Media and communication studies, Political sciences and public policy, Population studies, Psychology, Sociology, Technology management, Tourism; Humanities—Arts and culture, Dance, Historical and civilisation studies, Language and Linguistics, Literature, Music, Philosophy, Religious studies, Sports.

History

Pertanika was founded in 1978. A decision was made in 1992 to streamline Pertanika into three journals as Journal of Tropical Agricultural Science, Journal of Science & Technology, and **Journal of Social Sciences & Humanities** to meet the need for specialised journals in areas of study aligned with the interdisciplinary strengths of the university.

After almost 25 years, as an interdisciplinary Journal of Social Sciences & Humanities, the revamped journal focuses on research in social and behavioural sciences as well as the humanities, particularly in the Asia Pacific region.

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Our goal is to bring the highest quality research to the widest possible audience.

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International Standard Serial Number (ISSN)

An ISSN is an 8-digit code used to identify periodicals such as journals of all kinds and on all media–print and electronic. All Pertanika journals have ISSN as well as an e-ISSN.

Journal of Social Sciences & Humanities: ISSN 0128-7702 *(Print)*; ISSN 2231-8534 *(Online)*.

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A decision on acceptance or rejection of a manuscript is reached in 3 to 4 months (average 14 weeks). The elapsed time from submission to publication for the articles averages 5-6 months.

Authorship

Authors are not permitted to add or remove any names from the authorship provided at the time of initial submission without the consent of the Journal's Chief Executive Editor.

Manuscript preparation

Refer to Pertanika's **Instructions to Authors** at the back of this journal.

Most scientific papers are prepared according to a format called IMRAD. The term represents the first letters of the words **I**ntroduction, **M**aterials and Methods, **R**esults, **A**nd, **D**iscussion. IMRAD is simply a more 'defined' version of the "IBC" [Introduction, Body, Conclusion] format used for all academic writing. IMRAD indicates a pattern or format rather than a complete list of headings or components of research papers; the missing parts of a paper are: *Title, Authors, Keywords, Abstract, Conclusions*, and *References*. Additionally, some papers include Acknowledgments and Appendices.

The *Introduction* explains the scope and objective of the study in the light of current knowledge on the subject; the *Materials and Methods* describes how the study was conducted; the *Results* section reports what was found in the study; and the *Discussion* section explains meaning and significance of the results and provides suggestions for future directions of research. The manuscript must be prepared according to the Journal's **Instructions to Authors**.

Editorial process

Authors are notified with an acknowledgement containing a *Manuscript ID* on receipt of a manuscript, and upon the editorial decision regarding publication.

Pertanika follows a **double-blind peer-review** process. Manuscripts deemed suitable for publication are usually sent to reviewers. Authors are encouraged to suggest names of at least three potential reviewers at the time of submission of their manuscript to Pertanika, but the editors will make the final choice. The editors are not, however, bound by these suggestions.

Notification of the editorial decision is usually provided within ten to fourteen weeks from the receipt of manuscript. Publication of solicited manuscripts is not guaranteed. In most cases, manuscripts are accepted conditionally, pending an author's revision of the material.

As articles are double-blind reviewed, material that might identify authorship of the paper should be placed only on page 2 as described in the first-4 page format in Pertanika's **Instructions to Authors** given at the back of this journal.

The Journal's peer-review

In the peer-review process, three referees independently evaluate the scientific quality of the submitted manuscripts.

Peer reviewers are experts chosen by journal editors to provide written assessment of the **strengths** and **weaknesses** of written research, with the aim of improving the reporting of research and identifying the most appropriate and highest quality material for the journal.

Operating and review process

What happens to a manuscript once it is submitted to *Pertanika*? Typically, there are seven steps to the editorial review process:

1. The Journal's chief executive editor and the editorial board examine the paper to determine whether it is appropriate for the journal and should be reviewed. If not appropriate, the manuscript is rejected outright and the author is informed.

2. The chief executive editor sends the article-identifying information having been removed, to three reviewers. Typically, one of these is from the Journal's editorial board. Others are specialists in the subject matter represented by the article. The chief executive editor asks them to complete the review in three weeks.

   Comments to authors are about the appropriateness and adequacy of the theoretical or conceptual framework, literature review, method, results and discussion, and conclusions. Reviewers often include suggestions for strengthening of the manuscript. Comments to the editor are in the nature of the significance of the work and its potential contribution to the literature.

3. The chief executive editor, in consultation with the editor-in-chief, examines the reviews and decides whether to reject the manuscript, invite the author(s) to revise and resubmit the manuscript, or seek additional reviews. Final acceptance or rejection rests with the Edito-in-Chief, who reserves the right to refuse any material for publication. In rare instances, the manuscript is accepted with almost no revision. Almost without exception, reviewers' comments (to the author) are forwarded to the author. If a revision is indicated, the editor provides guidelines for attending to the reviewers' suggestions and perhaps additional advice about revising the manuscript.

4. The authors decide whether and how to address the reviewers' comments and criticisms and the editor's concerns. The authors return a revised version of the paper to the chief executive editor along with specific information describing how they have answered' the concerns of the reviewers and the editor, usually in a tabular form. The author(s) may also submit a rebuttal if there is a need especially when the author disagrees with certain comments provided by reviewer(s).

5. The chief executive editor sends the revised paper out for re-review. Typically, at least one of the original reviewers will be asked to examine the article.

6. When the reviewers have completed their work, the chief executive editor in consultation with the editorial board and the editor-in-chief examine their comments and decide whether the paper is ready to be published, needs another round of revisions, or should be rejected.

7. If the decision is to accept, an acceptance letter is sent to all the author(s), the paper is sent to the Press. The article should appear in print in approximately three months.

The Publisher ensures that the paper adheres to the correct style (in-text citations, the reference list, and tables are typical areas of concern, clarity, and grammar). The authors are asked to respond to any minor queries by the Publisher. Following these corrections, page proofs are mailed to the corresponding authors for their final approval. At this point, **only essential changes are accepted**. Finally, the article appears in the pages of the Journal and is posted on-line.

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Foreword

Welcome to the **First Issue 2018** of the Journal of Social Sciences and Humanities (JSSH)!

JSSH is an open-access journal for the Social Sciences and Humanities that is published by Universiti Putra Malaysia Press. It is independently owned and managed by the university and run on a non-profit basis for the benefit of the world-wide social science community.

This issue contains **35 articles,** of which **three** are review articles, **one** is a short communication and **31** are regular research articles. The authors of these articles come from different countries, namely, **Malaysia**, **Pakistan**, **Netherlands**, **Russia**, **Nigeria**, **Thailand**, **India**, **Indonesia**, **Mexico**, **Japan**, **South Africa**, the **Czech Republic** and **Iran**.

The first review article in this issue discusses the influence of religiosity on safety behaviour of workers through a proposed framework (*Mahmud, M.* and *Yusof, S. M.*) while the second is on common issues and challenges of breast cancer awareness in Malaysia, focused on the contemporary scenario (*Mohamed Samsudeen Sajahan* and *Azizah Omar*). The last review is a narrative review article that discusses psychological and social factors of depression recovery (*Jin Kuan Kok, Kai-Shuen Pheh* and *Gaik Lan Hor*). The short communication in this issue reports briefly on tourists with dementia, a condition that poses a unique challenge for the tourism industry (*Blanka Klímová*).

The regular articles cover a wide range of topics. The first is on factors influencing juveniles' perception of the police in Karachi, Pakistan (*Abdullah Khoso, Pasand Ali Khoso* and *Ghulam Mujtab Khushk*). The following articles look at: the resistance of local wisdom towards radicalism in a study of the *Tarekat* community of West Sumatra, Indonesia (*Welhendri Azwar*); the identification of the gender of the author of a written text using topic-independent features (*Tatiana Litvinova, Pavel Seredin, Olga Litvinova* and *Olga Zagorovskaya*); the characteristics of entrepreneurs with successful and sustainable small businesses in northeastern Thailand (*Nath Amornpinyo*); debunking the myth of money as a motivator in a multigenerational workforce (*Lee Su Teng, Sharmila Jayasingam* and *Khairuddin Naim Mohd Zain*); the effect of self-transcription and expert scaffolding on the accuracy of the oral production of EFL learners (*Shirin Abadikhah* and *Masoome Valipour*); recent challenges for the enforcement of wildlife laws in east Malaysia (*Mariani Ariffin*); smartphone usage capabilities among younger and elderly users (*Raywadee Sakdulyatham, Somjaree Preeyanont, Rajalida Lipikorn* and *Rewadee Watakakosol*); students' perspective on the impact of English teacher development programmes on teaching quality in Indonesia (*Azkiyah, S. N., Doolaard, S., Creemers, Bert P. M.* and *Van der Werf, M. P. C. (Greetje)*); Orang Asli student icons as an innovative teaching method for Orang Asli students (*Rohaida Nordin, Muhamad Sayuti Hassan @ Yahya* and *Ibrahim Danjuma*); impact of commuter families on adolescent development, focussing on an evaluation of the adolescent from Peninsular Malaysia (*Siaw Yan-Li, Samsilah Roslan,*

Maria Chong Abdullah and *Haslinda Abdullah*); an empirical study on the influence of demographic profile on work-life balance of women employees in the tannery industry (*S. Prithi* and *A. Vasumathi*); wartime rape in Judith Thompson's *Palace of the End* (*Elaff Ganim Salih, Hardev Kaur, Ida Baizura Bahar* and *Mohamad Fleih Hassan*); the role of images and the imagination in the nature of 'nature tourism' in an exploration of ecotourism (*Kalpita Bhar Paul*); gender differences in behaviourally fractionated omitted stimulus reaction time tasks using visual, auditory and somatosensory stimuli (*Hernández O. H., Alfonso-ArguelloJ. I.* and *Hernández-Sánchez J. A.*); the effect of phase-based instruction using a geometer sketchpad on geometric thinking regarding angles (*Poh Geik Tieng* and *Leong Kwan Eu*); overcoming shadow worlds and achieving individuation through a hero's journey in Tunku Halim's "A Sister's Tale" (*John Helvy Akam* and *Wan Roselezam Wan Yahya*); the integration of values and culture in Malay folklore animation (*Normaliza Abd Rahim, Awang Azman Awang Pawi* and *Nik Rafidah Nik Muhammad Affendi*); Iranian medical students' perception of classroom participation in a general English course and its grading criteria (*Laleh Khojasteh, Nasrin Shokrpour* and *Reza Kafipour*); the shadow worlds that run parallel to the real world: Deleuzian time-IMA and virtualities in Paul Auster's *Sunset Park* (*Nasser Maleki* and *Moein Moradi*); assessing cyberloafing behaviour among university students in a validation of the cyberloafing scale (*Koay, Kian-Yeik*); the effectiveness of toybox intervention to reduce sedentary behaviour among pre-school children, looking specifically at a case in Malaysia (*Hon, K. Y., Chua, B. S.* and *Hashmi, S. I.*); the Palestinian realities of exile in the works of Sahar Khalifeh (*Priyanka* and *Shashikantha Koudur*); the curious incidence of individual empowerment (*Taraneh Houshyar* and *Bahee Hadaegh*); an economic valuation of urban green spaces in Kuala Lumpur city (*Nur Syafiqah, A. S., A. S. Abdul-Rahim, Mohd Johari, M. Y.* and *Tanaka, K.*); the preliminary assessment and prioritisation of demand management strategies for reducing train overcrowding (*Nor Diana Mohd Mahudin*); SME development and ASEAN economic integration in an analysis of Singapore and Malaysia (*Thanawat Pimoljinda* and *Ritthikorn Siriprasertchok*); the impact of the school context on the construction of female mathematic teachers' professional identity in a South African primary school (*GM Steyn*); export tax policy in Indonesia and its impacts on competitiveness and price integration of cocoa products (*Abdul Muis Hasibuan* and *Apri Laila Sayekti*); a path analysis of the relationship between job stress and care for ageing parents in Thailand, focussing on a case study of Thai migrant workers (*Kaewanuchit C.* and *Kanwal, N. D. S.*); and "Kahoot!", an educational computer game for use in higher education (*Tan, D. A. L., Ganapathy, M.* and *Manjet Kaur*).

I anticipate that you will find the evidence presented in this issue to be intriguing, thought-provoking and useful in reaching new milestones. Please recommend the journal to your colleagues and students to make this endeavour meaningful.

I would also like to express my gratitude to all the contributors who have made this issue possible, as well as the authors, reviewers and editors for their professional contribution. Last but not least, the editorial assistance of the journal division staff is also fully appreciated.

JSSH is currently accepting manuscripts for upcoming issues based on original qualitative or quantitative research that opens new areas of inquiry and investigation.

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SOCIAL SCIENCES & HUMANITIES

Review Article

The Influence of Religiosity on Safety Behavior of Workers: A Proposed Framework

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ABSTRACT

There has been a growing body of studies on religion and human safety behaviour in recent years. However, psychologists seem to be more inclined to pairing religiosity and non-occupational risky behaviour (such as smoking, substance abuse, drinking and driving) in their studies, while safety scientists have hardly explored the influence of religiosity on occupational safety behaviour such as taking shortcuts or breaking the rules. To close this gap, this paper suggests that empirical studies should be conducted to explore possible associations between religiosity and safety behaviour at the workplace. To facilitate such studies, a conceptual framework is proposed based on the Theory of Planned Behaviour (TPB). This paper explains the rationale of choosing TPB. While TPB postulates that both the behavioural intention and perceived behavioural control explain the behaviour, it is interesting to examine the effect of religiosity on occupational behaviour. Examining religiosity as a new construct in occupational safety behaviour studies can help trigger the interest of other religious scholars, psychologists and safety scientists to use religiosity as a construct more rigorously in their future studies on safety to address the gap. Such studies can also help formulate or enhance safety interventions, since these human-related incidents and accidents seem endemic in high-risk industries.

Keywords: Occupational safety behaviour, religiosity, Theory of Planned Behaviour (TPB)

INTRODUCTION

In any high-risk industry, safety is of paramount importance. After the Piper

Alpha incident in 1988 where 167 offshore workers died, researchers conducted many studies to understand the causes of industrial accidents. Reason (1999) reported that the Institute of Nuclear Power Operations in the United States of America found that accidents were contributed by human performance (52%) and design deficiencies (33%). As designs are being constantly improved and deficiencies supplemented using highly sophisticated and safety-based technology, most of the design concerns are now coming under control. However, accidents or disasters continue to happen, although the most modern technology is used. So, if technology cannot reduce accidents, then what can? This question has been plaguing safety scientists for decades, triggering voluminous studies on workplace safety. This has led to studies on the behaviour of workers and the underpinning factors that might contribute to incidents and accidents. Heinrich claimed that 88% of workplace accidents were the result of unsafe behaviour (Manuele, 2011). While this high percentage has been fiercely contested by some scholars, the human factor in accidents at the workplace is still a concern.

ACCIDENT CAUSATION THEORIES

Even though the high percentage of human (unsafe behaviour) contribution to accidents can be disputed, it is Heinrich's studies on the "human factor" that has resulted in the first scientific approach to accident prevention. There are many accident causation theories or models developed by safety experts to examine factors that contribute to accidents. Some focus on employees' actions (behaviour) or inaction that causes accidents. Others concentrate on the responsibilities (actions and inaction) of the management that contribute to accidents. It is crucial for safety professionals to understand these accident causation theories so that accurate information about organisational safety problems can be used to develop effective safety interventions or programmes to prevent or reduce accidents in the workplace. This paper briefly examines some of the most popular accident causation theories that focus on safety behaviour.

Heinrich's Domino Theory

This domino theory developed by Heinrich in the late 1920s is considered the first accident causation theory ever formulated (Friend & Kohn, 2005). Heinrich's Domino Theory outlines five factors about accidents that are represented by individual principles or 'dominoes':

1. Negative character traits leading a person to behave in an unsafe manner can be inherited or acquired as a result of the social environment.

2. Negative character traits are why individuals behave in an unsafe manner and why hazardous conditions exist.

3. Unsafe acts committed by individuals and mechanical or physical hazards are the direct cause of accidents.

4. Falls and the impact of moving objects typically cause accidents resulting in injury.

5. Typical injuries resulting from accidents include lacerations and fractures.

The five factors can be pictured as a series of dominoes standing on one edge; when one falls, the disturbance causes the next piece to fall, and that causes the next to fall, thus triggering a chain reaction that ends with every piece having fallen. Since each factor is dependent on the preceding factor, when one factor, such as employees' unsafe behaviour or unsafe conditions in the workplace are averted, then the chain reaction is stopped, thus preventing accidents and injuries (Friend & Kohn, 2005).

Bird and Loftus' Domino Theory

Bird and Loftus (1976) developed an updated domino theory that includes the between workers and the management. This theory uses five dominoes to represent the five events that are associated in accidents:

1. Lack of management control – This refers to the functions of a manager such as planning, organising, leading and controlling.

2. Basic cause – This refers to two groups:

   a. Personal factors such as lack of knowledge or skill, improper motivation, and/or physical or mental problems, and

   b. Job factors such as inadequate work standards, inadequate design

or maintenance, normal tool or equipment wear and tear, and/or abnormal tool usage.

3. Immediate causes – This refers to unsafe acts and unsafe conditions.

4. Incident or undesired event

5. People-Property-Loss – This refers to the adverse results of accidents such as property damage and human injury. Like Heinrich's theory, the Bird and Loftus Domino Theory also postulates that accidents are preventable if unsafe behaviour is prevented and unsafe conditions are averted.

Human Factors Theory

The Human Factors Theory postulates that accidents are caused by human error, which is the result of three factors:

1) Overload, which represents excessive burdens or responsibilities placed on a worker,

2) Inappropriate activities, which refer to activities that are new or unfamiliar to the worker, and

3) Inappropriate response, which occurs when a worker does not take corrective action when he sees a hazard or when a worker removes a protective system in order to increase productivity (Friend & Kohn, 2005).

Swiss Cheese Model

Unlike Heinrich's Domino Theory, which is considered the traditional approach to accident causation, the Swiss Cheese Model,

developed by Reason (1999), is classified under the modern approach of accident causation. According to this theory, the factors causing accidents can be visualised as slices of cheese, having many holes; however, unlike in cheese, the 'holes' in accidents i.e. the factors causing accidents are continuously shifting their position. The holes represent the faults or failures and their presence in any of the slices does not normally cause accidents. Accidents happen when all the slices of cheese line up to allow a trajectory path for the hazards to pass through so that they come in contact with the victims. The holes (faults) in the slices are caused by two elements, namely active failures and latent conditions. Active failures are the unsafe behaviour of people who are in direct contact with the system of work and are in the form of slips, lapses, fumbles, mistakes and procedural violations (Reason, 1999), while latent conditions refer to the inevitable "resident pathogens" that lie dormant within the system (Reason, 1999). They will lie dormant until some enabling conditions such as error or the unsafe behaviour of workers triggers it (Woods, Johannesen, Cook, & Sarter, 1994).

These accident causation theories emphasise that safety behaviour of workers is one of the major contributors to accidents. Therefore, to reduce accidents at the workplace, the root causes of lack of safety behaviour need to be examined in order to increase safe behaviour and reduce or stop unsafe behaviour. Accident causation theories are central in driving study into safety and human behaviour.

OCCUPATIONAL SAFETY BEHAVIOUR STUDIES

There is a vast body of studies on human error, human behaviour, human attitude and human personality conducted by scientists and psychologists in the attempt to understand the human factors that lead to accidents. For example, Mearns, Flin, Gordon and Flemming (1997) studied the organisational and human factors that affected safety in onshore and offshore installations. A few years later, a study was conducted to examine the impact of safety climate on safety behaviour of workers in organisations (Neal, Griffin, & Hart, 2000). Other studies on safety behaviour in the literature included safe lifting behaviour by Johnson and Hall (2005); safety climate prediction of unsafe behaviour by Fogarty and Shaw (2010); safety behaviour in petrochemical plants by Salleh (2010), and; safety motivation impact on safety behaviour by Ibrahim (2012).

Despite the volume of safety behaviour studies in the literature, not all the issues raised by these studies have been settled. For example, Cooper and Phillips (2004) claimed that researchers struggled over the last 25 years searching for empirical evidence on safety climate and safety performance relationship. In addition, Salleh (2010) suggested that while the study of human safety behaviour has been conducted for decades, the solutions remained "scattered and scarce". In addressing these issues, Cooper and Phillips (2004) proposed that many more studies are needed, and they should use a range

of safety performance outcome variables instead of depending mainly on self-report instruments. Thus, to look into and further understand the complexities of safety behaviour, it is proposed that more safety behaviour studies should be conducted from various perspectives such as religion. For example, in a study on Christianity, Islam and Traditional African Religion groups in Ghana, Gyekye and Haybatollahi (2012) measured the influence of religion on safety behaviour of the workers in the workplace. They found that Christian workers indulged in safer behaviour than their colleagues from the Islamic and the traditional African religious groups. The Muslim and Traditionalist workers were also found to be more fatalistic in their attitudes than the Christian workers.

Accidents or disasters continue to happen in many advanced countries such as The United States of America and the United Kingdom in spite of the latest technology and sophisticated systems used in their high-risk industries such as oil and gas, nuclear and construction. The use of sophisticated engineering is no guarantee that accidents will be averted. This finding is consistent with that of most studies in the literature that human factors contribute more to the occurrence of accidents in the workplace than do technological factors. For example, the Institute of Nuclear Power Operations (INPO) in the United States of America found that 52% of the significant events reported in 1983 and 1984 were caused by human performance (Reason, 1999). This 52% of human contribution

to accidents in the workplace was broken down further into deficient procedures or documentation (43%); lack of knowledge or training (18%); failure to follow procedures (16%); deficient planning or scheduling (10%); miscommunication (6%); deficient supervision (3%); policy problems (2%) and others (2%). The data indicated that most root causes came from either maintenance activities or bad decisions taken by the management.

RELIGIOSITY STUDIES

As seen in Section 3, there is an abundance of safety behaviour studies exploring factors affecting safety behaviour. However, religiosity is hardly studied in the realm of safety or safety behaviour. Research into religiosity and behaviour is considered "worthwhile" (Creel, 2007) as many people worldwide are pervasively engaged in the practice of religion. For example, in a survey by The Religion Monitor, Pickel (2013) found the percentage of people who claimed to be "very," "fairly" or "moderately" religious is considerably high: Turkey (82%), Brazil (74%), India (70%) and the USA (67%).

Mokhlis (2006) defined religiosity (also called religious commitment) as "the degree to which beliefs in specific religious values and ideals are espoused and practiced by an individual" (p. ii). On the other hand, the World Health Organisation (WHO) (1998), firstly defined religion as "belief in the existence of a supernatural ruling power, the creator and controller of the universe, who has given to man a spiritual nature

which continues to exist after the death of the body" (p. 7). However, WHO (1998) did not define religiosity but religiousness instead; religiousness refers to the extent to which an individual believes in, follows and practises a religion.

There is a plethora of studies in the literature that support the growing body of studies on religion or religiosity and human behaviour. Some aspects of human behaviour widely studied by psychologists and researchers in relation to religion and religiosity are health behaviour (Creel, 2007; Kutcher, Bragger, Srednicki, & Masco, 2010; Dodor, 2012), consumer behaviour (Mokhlis, 2006; Lau, Choe, & Tan, 2011), business ethical and unethical behaviour (Ademir & Egilmez, 2010), sexual risk behaviour (Campbell, 2008; Haglund & Fehring, 2009), prosocial behaviour (compliant, public, anonymous, dire, emotional and altruistic) (Hardy & Carlo, 2005), HIV risky behaviour (Trinitapoli & Regnerus, 2006; Sanchez, 2012) and risk behaviour such as smoking, drinking, speeding and seat-belt use (Cazzell, 2009; Sinha, Cnaan, & Gelles, 2007).

Although many studies found that religiosity can predict risky behaviour in non-occupational settings such as drinking, driving and substance abuse, presently there is hardly any research into religiosity and occupational safety behaviour. For example, in an initial review of 27 behaviour-religiosity studies to date, only one by Khan (2007) actually involved religiosity and safety behaviour in the workplace. It is this gap in knowledge that inspired this study, which proposes a framework that could be used to fill the gap while at the same time giving a better understanding of how religiosity among workers affects their behaviour with regards to safety in the workplace.

According to Khan (2007), there have been no studies that examined the influence of religiosity on risk factors associated with workplace safety. However, many studies looked at the influence of religiosity on general risk (Chapman & Denholm, 2001; Miller, 2000). Since there is a link between religiosity and risk in general, it is logical to assume that religiosity might also influence safety behaviour in the workplace. Due to this gap in religiosity and safety behaviour knowledge, Khan (2007) conducted a study on the influence of religiosity on workers' safety perception and safety behaviour.

BEHAVIOURAL CHANGE MODELS

As explained in Section 2, accident causation theories are developed to help safety scholars understand factors that contribute to accidents. One factor that is mentioned consistently in those studies is the unsafe act. In order to stop or change any unsafe acts or behaviour, the factors contributing to unsafe acts need to be understood first. Safety scholars have in fact found many useful behavioural theories developed by behaviour psychologists to help investigate factors affecting safety behaviour.

For decades, theoretical models of behavioural change, such as Health Belief Model (HBM), Social Cognitive Theory (SCT), Theory of Reasoned Action (TRA),

Theory of Planned Behavior (TPB) and Transtheoretical model (TTM) have been applied in a wide range of behaviour studies. This paper briefly reviews four of the major theories of behaviour or/and behavioural change that may be relevant to the development of effective intervention in health and safety behaviour from mainstream psychology. Based on evidence from the literature, the most appropriate model was selected for this study.

Health Belief Model (HBM)

The Health Belief Model (HBM), developed by Hochbaum in the 1950s, marked the start of structured and theory-based studies in health behaviour (Creel, 2007). The HBM proposes that people will perform preventive behaviour if they perceive a threat to their health. Such preventive behaviour depends on various factors such as: perceived susceptibility, perceived severity, perceived benefits, perceived barriers and cues to action (Rutter & Quine, 2002). For better understanding of health behaviour, Rosenstock, Strecher and Becker (1988) suggested that an expanded Health Belief Model, which includes perceived self-efficacy, be used in related research as an additional variable.

Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA) states that a person's intention to perform a behaviour is the best predictor of behaviour (Ajzen, 1991). Two factors, attitude towards behaviour and subjective norm, in turn predict the intention to perform (or not to perform) the behaviour. Attitude is defined as a product of belief about consequences and evaluation of the importance of consequences, while subjective norm is defined as the person's normative beliefs about perceived social pressure from significant others (Rutter & Quine, 2002).

Theory of Planned Behaviour (TPB)

One major drawback of TRA is that its predictive power is poor when dealing with people who perceive that they have little control over their behaviour or attitude. Due to this drawback, Ajzen (1991) added a construct to the Theory of Reasoned Action (TRA) and called it the Theory of Planned Behaviour (TPB). This construct is termed as perceived behavioural control, which represents the perception of people on the ease or difficulty of performing the behaviour (Gielen & Sleet, 2003). In brief, the Theory of Planned Behaviour (TPB) proposes that a combination of attitude, subjective norm and behavioural intention could predict one's behaviour.

Transtheoretical model (TTM)

The outcomes of the three models discussed so far i.e. the Health Belief Model (HBM), the Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB), can all be considered as lying on a continuum (Rutter & Quine, 2002). In these models, to change a person's behaviour up or down the

continuum, an act of intervention to change the person's belief about the particular behaviour is required. Meanwhile, in the Transtheoretical model (TTM), the outcome can be categorised into five stages (Rutter & Quine, 2002) as proposed in this model:

1) Pre-contemplative – Not thinking to change

2) Contemplative – Aware and thinking to change

3) Preparation – Preparing to make a change

4) Action – Making the change and maintaining it for a short period

5) Maintenance – Maintaining the change in behaviour (Gielen & Sleet, 2003).

Taylor, Bury, Campling, Carter, Garfied, Newbould and Rennie (2006) claimed that TTM is considered a popular health behaviour change model, despite the complexities of its structure.

There are a plethora of findings on the features and applications of each of the above four models. For instance, Creel (2007) found that many of the behaviour models and constructs overlap each other and that their predictive powers vary widely, while Taylor et al. (2006) found that each model had its own unique characteristics. For example, the HBM's "perceived threat" construct is different from that of TRA, TPB and TTM (Taylor et al., 2006). In another finding, Ajzen (1998) concluded that the HBM is mostly confined to health behaviour investigation, while the application of TRA and TPB are mostly for general behaviour.

These findings form the basis of selecting the most appropriate model for this study; this is discussed next.

SELECTING THE MODEL FOR THIS STUDY, THE THEORY OF PLANNED BEHAVIOUR (TPB)

Overall, all the previously reviewed health and safety models are capable of explaining the factors affecting a wide range of human behaviour. However, of the four models examined, the Theory of Planned Behaviour (TPB) is considered the most pertinent in building a religiosity-safety behaviour conceptual framework for this study. The preference of the Theory of Planned Behaviour (TPB) over other models is due to a number of reasons. First, the Theory of Planned Behaviour (TPB) is a popular and influential model. For instance, in a meta-analysis of Internet-based intervention, Webb, Joseph, Yardley and Michie (2010) found that the three most commonly used theories were the Social Cognitive Theory (SCT), the Trans-Theoretical Model (TTM) and the Theory of Reasoned Action/Planned Behaviour (TRA/TPB). Apparently, Webb et al. (2010) found that, of the three theories, the Theory of Planned Behaviour (TPB) was the most influential. In another study, Rivis and Sheeran (2003) also suggested that TPB was the most influential model for explaining social and health behaviour.

Second, the Theory of Planned Behaviour (TPB) has greater predictive strength than most of the other behavioural change models. For instance, Taylor et al. (2006) concluded in a meta-analysis that

the Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB) had superior predictive power compared to the HBM.

Third, the Theory of Planned Behaviour (TPB) is a widely accepted tool in many occupational safety behaviour (safe behaviour and unsafe behaviour) studies, indicating a consensus of TPB utility. For example, in a safe-lifting behaviour study, Johnson and Hall (2005) analysed the results of the study using structural equation modelling and found that the Theory of Planned Behaviour was capable of predicting safe-lifting behaviour. They further proposed that the Theory of Planned Behaviour was also applicable in understanding other safety-related behaviour. In another study that used the Theory of Planned Behaviour as the basis of its framework, Salleh (2010) showed that safety commitment, safety motivation, employees' conscientiousness and employees' competency positively predicted safety behaviour. The viability of TPB as a supportive framework for a safety behaviour study has been illustrated further by a study which posited that safety motivation, safety training and safety climate are positively and significantly related to safety behaviour (Ibrahim, 2012).

Fourth, the religiosity construct of this study is more suited to the Theory of Planned Behaviour (TPB). It was found that religiosity has potential influence on intention and behaviour. While there are countless studies employing the Theory of Planned Behaviour (TPB) in various behaviour domains as depicted above,

there are not many TPB-based studies that involve the religiosity variable. In one study involving religiosity, Ajzen and Klobas (2013) found that TPB was capable of explaining factors that could influence the decision to have a child. However, the study tested religiosity as one of the many background factors such as nationality, general life values, attitude to childlessness and personality characteristics as well as demographic variables such as age, parity, housing conditions, income and education. Despite the background role played by this religiosity construct, this study conducted by Ajzen and Klobas (2013) serves as an empirical support for the utility of a behaviour-and-religiosity conceptual framework.

In contrast to the role of religiosity in the above study, Alam (2012) proved in his study on 300 Muslim consumers in Malaysia that religiosity could also be used as one of the main variables in TPB application. In his study, Alam (2012) found that religiosity had a significant and positive influence on the intention to buy a house using the Islamic financing method. Therefore, based on this finding, it is proposed in this study that religiosity plays a role in behavioural safety intention. This proposition led to the formulation of the religiosity and safety behaviour conceptual framework based on TPB.

THE THEORY OF PLANNED BEHAVIOUR (TPB)

The Theory of Planned Behaviour (TPB) was introduced by Ajzen in 1985 and is

now one of the most popular models used in predicting human social behaviour. Ajzen (2011) claimed that using the Google Scholar search engine, it had been found that the number of citations of this work had increased from 22 in 1985 to 4550 in 2010. The Theory of Reasoned Action was the earlier model developed by Fishbein and Ajzen as an intention theory in determining volitional behaviour. Due to its limitation, Ajzen (1991) included a perceived behaviour control to explain the internal and external constraints on behaviour, and called it the Theory of Planned Behaviour (TPB). The main components of TPB are attitudes, subjective norms, perceived behavioural control, intentions and behaviour (Ajzen, 1991, 2011). The main principle of TPB is that an individual's behaviour is a direct function of behaviour intention and perceived behavioural control. The main constructs are shown in Figure 1.
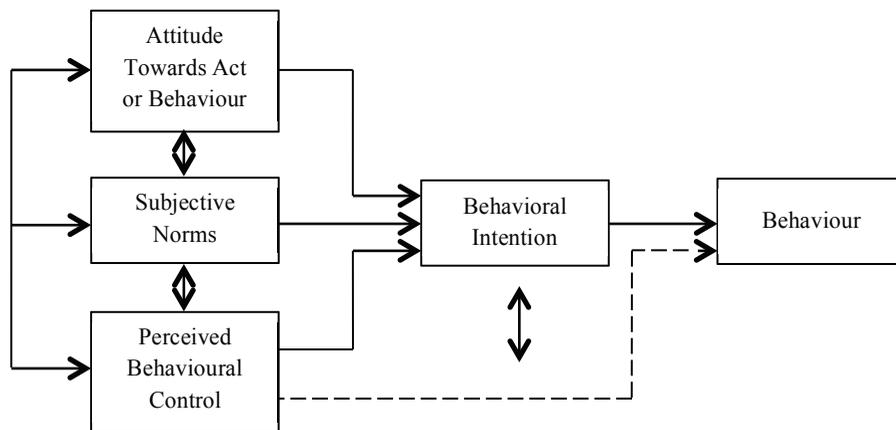
Figure 1. Theory of planned behaviour (Ajzen, 1991)

Attitude

Ajzen (1991) defined attitude as the degree to which a person has a favourable or unfavourable evaluation of behaviour. According to TPB, attitude denotes the positive or negative assessments of behaviour and its consequences. For example, people would tend to develop favourable attitudes towards behaviour that they believe would bring favourable consequences, while forming unfavourable attitudes towards behaviour that they feel would produce negative outcomes (Ajzen, 1991). According to Fazio (2007), attitude can form from emotional reactions to an object, past behaviour and experiences with the object, or some combination of these sources. The expectancy-value model of attitudes suggests that attitudes develop from the beliefs that people hold about the object of the attitude. These beliefs that are expected to influence attitudes towards the behaviour are called behavioural beliefs (Ajzen, 1991).

Subjective Norms

According to TPB, subjective norms refers to the perceived social pressure to perform or not to perform the behaviour. This social predictor relates to how people important to the person view the behaviour. For example, the disapproval or approval of certain behaviour by family members, friends or co-workers may lead to perceived social pressure to perform or not to perform the behaviour (Ajzen & Fishbein, 2005). Subjective norms can be measured by asking respondents to rate the extent to which important others would approve or disapprove of their performing a given behaviour.

Perceived Behaviour Control

Perceived behaviour control is the third determinant of intention and it refers to the perceived ease or difficulty of executing a certain behaviour. Perceived behavioural control is considered a central factor in TPB. It differentiates TPB from the Theory of Reasoned Action (TRA). Generally, the greater the three determinants, the attitude, the subjective norm and the perceived behavioral control, the stronger the intention to execute the behaviour. However, the importance of attitude, subjective norm and perceived behavioral control may vary across different behaviours. In one situation, perceived behavioural control and intention can effectively predict behaviour. However, in another situation, it is not surprising if only one of them is required to predict behaviour (Ajzen, 1991).

Behavioural Intention

Intention is instrumental in influencing behaviour in both TRA and TPB. Intention reflects the degree of seriousness and willingness of a person to carry out a certain behaviour. The stronger the intention to execute behaviour, the more likely that the behaviour is going to be executed. According to the TPB, behaviour to be performed depends not only on the motivation or intention to perform it but also to a certain degree on non-motivational elements such as time, money and skill (Ajzen, 1991). For example, a person's intention to purchase a sports car would not turn into purchasing behaviour if the cost of the car were beyond his or her financial capability. The cost of the car would be the controlling factor, while the decision to buy or not to buy would be the motivational factor. If the person had enough money or resources and had the intention of buying the sports car, then he or she would succeed in purchasing it.

Behaviour

TPB provides a useful conceptual framework for understanding the diversities and complexities of human social behaviour. According to TPB, performance of a certain behaviour is dependent on intention and perceived behavioural control. For accurate prediction of behaviour, both intention and perceived behavioural control must be related to that behaviour. For example, if we measured the 'intention to donate' or 'intention to help the Red Cross' to predict the behaviour of 'donating money to the

Red Cross', then the prediction would not be accurate. The correct measure would be 'intention to donate to the Red Cross' as it reflects the desired behaviour. Similarly, perceived behavioural control must be specific to the behaviour to be predicted (Ajzen, 1991).

STRENGTHS AND LIMITATIONS OF THE THEORY OF PLANNED BEHAVIOUR (TPB)

The main strength of the TPB is that it can explain non-volitional (non-voluntary) behaviour, which cannot be explained by the Theory of Reasoned Action (TRA). To explain behaviour, be it voluntary or non-voluntary behaviour, a concept of perceived ease or difficulty of executing the behaviour is added (Ajzen, 1991). This concept is known as perceived behavioural control. In voluntary behaviour, behavioural intention can reflect the behaviour, whereas in non-voluntary behaviour, perceived behavioural control is considered a stronger factor than intention in predicting the behaviour (Ajzen, 1991). The perceived behavioural control is likened to a concept proposed by Bandura (1982) called perceived self-efficacy which "is concerned with judgments of how well one can execute courses of action required to deal with prospective situations" (p. 122).

Another strong point of TPB is that it has greater predictive strength than most other behavioural change models (Taylor et al., 2006). Further, it was noted that among the 12 health-related behaviour models examined, TPB was the only one that was validated and had variables which covered behaviour motivation, intention and enacting (Armitage & Arden, 2002; Hrubes et al., 2001; Armitage & Conner, 2001).

Nonetheless, the TPB is not without issues or limitation. For example, Bandura (1992) argued that self-efficacy does not equate to perceived behavioural control concept, which Ajzen (1991) claimed are both compatible constructs. However, McCaul et al. (1993) showed that self-efficacy does not contribute much to the effectiveness of TPB, which actually resolved the concern. Johnson and Hall (2005) reported that some studies had encountered problems when measuring beliefs related to TPB, but the problems were addressed by excluding them from the studies. Despite the few limitations mentioned, TPB remains popular with researchers.

PROPOSED FRAMEWORK: THE EXTENDED THEORY OF PLANNED BEHAVIOUR (TPB)

The proposed framework consisting of five TPB constructs and one additional religiosity construct are discussed below. The diagram of the extended TPB model for the religiosity-occupational safety behaviour framework is shown in Figure 2.
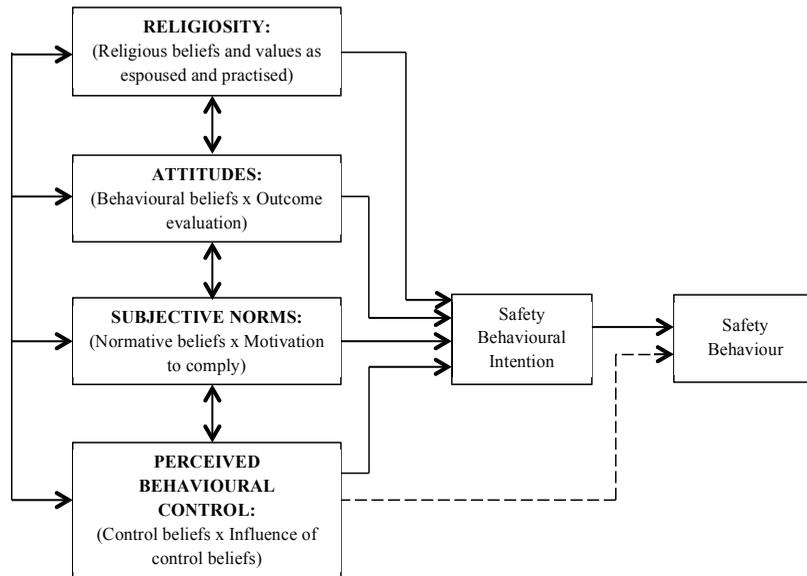
Figure 2. The extended theory of planned behaviour

Safety Attitude

Safety attitude simply refers to the beliefs or perceptions concerning the policies, procedures and practices of safety (Neal & Griffin, 2004). For example: "I intend to encourage fellow workers to work safely next week," is a typical item to measure safety attitude. Based on TPB, safety attitude is the first determinant of the safety intention of a worker to perform safe behaviour. Generally, behavioural belief about certain attributes of an object combines multiplicatively with the evaluation of the attributes such as the cost incurred in executing safety behaviour to strengthen safety attitude (Ajzen, 1991).

Subjective Norms

'Subjective norms refer to the overall perceived social pressure derived from the combined normative beliefs (beliefs that others want someone to hold in order to execute a certain behaviour) of various social referents (Ajzen, 2012). The perception of the normal group safety practices in a given workplace is an example of a subjective norm (Fogarty & Shaw, 2010). A typical item such as "Most people who are important to me support me in working safely," is used to measure the subjective norms for safety behaviour prediction. Subjective norms depend on normative beliefs, which refer to the likelihood that important individuals or groups approve or disapprove of performing a certain behaviour and the person's motivation to comply with the referent. However, Armitage and Conner (2001) showed that subjective norms as a whole is a weak predictor of behavioural intention.

Perceived Behaviour Control

According to Fogarty and Shaw (2010), perceived behavioral control refers to the inability to perform work according to rules and procedures because of forces that are beyond the individual's control. Fogarty and Shaw (2010) suggested that workplace pressures could be considered an example of perceived behaviour control in the workplace context. Items such as "I am confident that I would follow safety procedures during the presence of my supervisor," typifies a perceived behaviour control measure. To obtain the perceived behaviour control, control belief is multiplied by perceived power of the control factor to facilitate or inhibit performance of the behaviour. Control belief may refer to past experience with the behaviour or factors that increase or reduce the perceived difficulty of performing the safety behaviour.

Behavioural Intention

As posited by TPB, behavioural intention is central to performing behaviour. Intention is defined in TPB by Ajzen (1991) as the amount of effort one is willing to exert to attain a goal. Therefore, safety intention refers to a person's plan or intention to perform safe behaviour. For example, the item, "I intend to encourage fellow workers to work safely next week," is used to gauge the worker's safety intention.

Safety Behaviour

Occupational safety behaviour is defined as behaviour required to promote safety at the workplace and behaviour that does not affect the worker's safety directly but helps to build conditions that promote safety (Neil & Griffin, 2006). For example, the item, "I don't take chances in getting a job done," exemplify the safety behaviour measurement. As posited by TPB, the execution of safety behaviour is dependent on safety intention and perceived behavioural control. However, it is possible that any one of them is capable of predicting safety behaviour (Ajzen, 1991). As discussed earlier, safety behaviour is one of the prevalent factors in accident causation theories. To understand the factors influencing safety behaviour, TPB is frequently used in studies. However, the influence of religiosity on safety behaviour is hardly explored. Thus religiosity as a construct is added to TPB to offer a conceptual framework for safety scholars for collecting more empirical evidence on the safety behaviour and religiosity relationship.

Religiosity

Mokhlis (2006) defined religiosity as "the degree to which beliefs in specific religious values and ideals are espoused and practiced by an individual." Items such as "I offer prayer five times daily," are a religiosity measurement. Religion is the

most significant identity of a person and it governs his behavior and lifestyle. In fact, almost every individual is affiliated to a certain religion and makes decisions based on religious teaching, beliefs or values. Depending on the individual's level of religiosity, his or her attitude and behaviour are normally shaped by this set of beliefs and values (Ghouri et al., 2016). With the incredible number of application of 28 times in 1985 to 4550 in 2010 (Ajzen, 2011), TPB is considered one of the popular theories for studying human behaviour. As religion influences and dictates one's daily thoughts and behaviour, it is only fitting to study religiosity and safety behaviour using TPB.

A few studies proposed an extended model of TPB as their religiosity construct. For example, Ho et al. (2008) found in a religiosity study using TPB that religiosity was positively related to Internet engagement in online religious activities. As noted earlier, Alam (2012) also found that religiosity was significantly and positively related to behavioural intention using a similar extended framework of TPB, with religiosity as an added determinant of intention. The above studies by Ho et al. (2008) and Alam (2012) on Internet surfing behaviour and purchasing behaviour showed consistency in incorporating religiosity as the determinant of behavioural intention in TPB. Therefore, it appears appropriate to propose religiosity as the additional determinant of safety intention to predict safety behaviour in the extended version of TPB. In this proposed framework, religiosity is added as the fourth determinant

of behavioural intention, along with safety attitude, subjective norm and perceived behavioural control.

CONCLUSION AND FUTURE WORK

Given the fact that many proponents of TPB have successfully applied in their studies all the constructs proposed in this study such as religiosity, safety attitude, perceived behaviour control and safety behavioural intention in predicting various testable behaviour on different populations, this paper concludes that TPB is the suitable framework for this study.

The main proposition of this study is that Muslim workers' religiosity will have a positive relationship with occupational safety behaviour. While the researcher plans to apply the proposed conceptual framework in testing the proposition on the safety behaviour of Muslim shipyard workers in Malaysia, other researchers elsewhere are also encouraged to test it on different affiliates.

With an estimated 264 million occupational accidents and 350,000 fatalities occurring yearly around the globe (Hamalainen, Takala, & Saarela, 2006), it is hard to ignore the pressing need to address accidents at the workplace. Apparently, with many countries claiming to be religious such as Turkey (82%), Brazil (74%), India (70%) and the USA (67%), it is hard to ignore the possible influence of religiosity on safety behaviour (Pickel, 2013). In an effort to decrease accidents in the workplace, this paper proposed a religiosity-based framework that could help researchers in

conducting further empirical studies on safety behaviour of the workers. The studies could help researchers to understand human safety behaviour better before intervention can be taken to reduce unsafe behaviour.

Future work involves using this conceptual framework to investigate the safety behaviour of Muslim shipyard workers in Malaysia. In order to investigate Muslim religiosity, an Islamic religiosity scale will be used. Researchers can use the proposed framework on different affiliates with related religiosity scales. It is believed that this framework could enhance the understanding of safety behaviour of different religious affiliations throughout the world.

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Review Article

Common Issues and Challenges of Breast Cancer Awareness in Malaysia: A Contemporary Scenario

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ABSTRACT

The main purpose of the paper is to systematically review the common issues and challenges inhibiting breast cancer awareness in Malaysia. Drawing upon journals and database search dealing with breast cancer awareness in Malaysia, 38 articles were retrieved and then analysed using the content analysis method. Issues related to public health management of breast cancer pandemic in Malaysia, its effects and the fundamental principles used in developing and designing cancer control programmes, screening management as well as challenges faced by authorised agencies in promoting breast cancer awareness were studied. Methodology included identification of research streams, and the categorisation of reviewed articles into five main pillars, namely (a) thematic issue/problem statement in the articles; (b) target population; (c) applied methodologies; (d) measurement of dependent variables, and (e) findings that discuss the emerging issue and challenges in promoting breast cancer awareness in Malaysia. It is hoped that the knowledge gained will serve as a significant foundation in designing public health awareness campaigns to cultivate, instil early detection behaviour and ameliorate promotion efforts among public health authorities in Malaysia.

INTRODUCTION

Over the years, the pandemic of cancer cases around the world has become a thought-provoking issue in public health management (Youlden, Cramb, Yip, & Baade, 2014; Zelle & Baltussen, 2013; American Cancer Society, 2010). The burden of health expenditure on individual as well as public healthcare agencies due to cancer-related diseases is forecast to grow at an alarming rate worldwide in the future (World Cancer Report, 2008), especially among lower- and middle-income countries (Boyle & Levin, 2008; Sloan & Gelband, 2007). The number of new cancer cases is expected to rise to 16.8 million worldwide by 2020 and subsequently to 27 million by the year 2030 (Beaulieu, Bloom, Bloom, & Stein, 2009). Findings from the American Cancer Society (ACS) reported that the total economic impact of premature death and disability due to cancer worldwide in 2008 was USD895 billion. The top three types of cancer contributing towards the global impact are lung cancer (i.e.USD188 billion), colon/rectum cancer (i.e.USD99 billion) and breast cancer (i.e.USD88 billion) (American Cancer Society, 2010). The latest report issued by GLOBOCAN (2012) on cancer variation between the genders globally indicates that lung cancer, prostate cancer, colorectal cancer and stomach cancer are the most common types of cancer among males, while breast cancer, colorectal cancer, lung cancer and cervical cancer were identified as the common cases of cancer associated with women (GLOBOCAN 2012).

Breast cancer is identified as the most common cancer associated to a high incidence rate of mortality among women globally (Maznah, Sofea, & Awang, 2011; Jemal et al., 2011; Freedman & Partridge, 2013). Various existing studies in the literature have recognised breast cancer as the most prevalent, frequently diagnosed cancer and common cause of mortality among women worldwide (Pisani et al., 2002; Zeeb et al., 2002; Parkin et al., 2005; Eidson et al., 1994; Jemal et al., 2005; Anderson et al., 2006; Groot et al., 2006). This has been confirmed by the International Agency for Research on Cancer (IARC) in their latest press release statement (December 12, 2013) that breast cancer has caused 522,000 deaths worldwide and 1.7 million women were diagnosed with breast cancer in 2012 (WHO, 2013).

The initiative to combat the global breast cancer pandemic worldwide encapsulates comprehensive control programmes that involve prevention, early detection, diagnosis and treatment and rehabilitation and palliative care (WHO, 2015). Concisely, the fundamental principle in prevention and early detection lies in the effort of promoting breast cancer awareness that includes preventing cancers (eliminating; minimising exposure to the risk factor associated to cancer) and detecting cases (early detection control strategies) to reduce mortality. Apart from prevention, the detection control strategy comprises mammography, clinical breast examination (CBE) and breast self-examination (BSE). An annual mammogram

screening is recommended for woman aged 40 and above. CBE practice needs to be performed once every three years among women in their 20s up to age 39 and every year for women 40 years old and above. On the other hand, the BSE is promoted as a crucial and important method in improving the breast cancer outcome and in fact remains as fundamental breast cancer control strategy among nations with limited resources such as low- and middle-income countries (WHO, 2015; Ginsburg, 2013). Early detection via the BSE aided by screening can contribute towards reducing mortality by providing more opportunities for treatment choices if breast cancer is found at the early stage (Allen, Van Groningen, Barksdale, & McCarthy, 2010). Despite the lack of mutual consensus on the recommendation for BSE, numerous societies and associations such as the American Cancer Society, American College of Obstetrics and Gynaecology, American Medical Association, Susan G. Komen Foundation and the National Comprehensive Cancer Network still recommend the BSE as a tool for detecting breast cancer (Allen et al., 2010). It is postulated that early diagnosis and success of the screening initiative will result in substantial improvement in health (Loh & Chew, 2011).

In Malaysia, the incidence of breast cancer records a steady increment among all races starting from age 30 to the peak age of 50 to 59, with the majority of women diagnosed with breast cancer at the critical level aged between 40 and 60 (Hamudin, 2014). It is proposed that 50% (1,299) of

deaths due to breast cancer are avoidable with early detection and optimal access to treatment (Hamudin, 2014). From the overall total number of mortality, 647 cases of mortality could be prevented if detected at the early stage due to advancement of breast cancer treatment and cures. However, it was reported that the initiative by the National Population and Family Development Board (LPPKN) to promote early detection of breast cancer screening via introduction of a free mammogram subsidy programme received poor response from Malaysian women. Statistical evidence from the Women, Family and Community Development Ministry depicts that despite huge funding from the government to educate the public, in particular, women, on breast cancer awareness, the engagement from the target population is still relatively low. For instance, the free mammogram programme, which has been offered since 2007, received a total of RM54.2 million in allocation under the 2013 budget but only 1.5% out of 14.8 million women in the country have participated in the programme (Hamudin, 2014). This clearly indicates that while the Malaysian government has invested a vast amount of money, women have been slow to respond. This situation should not be neglected as it involves public funding, the time and expertise of healthcare policy-makers and expenditure, all of which are an economic burden to the country.

Motivated by this development, this paper aimed to conduct a systematic analysis on past journal articles to categorise and position the academic scenario, review the common issues, challenges and

methodological pitfalls as well to identify the gaps and provide direction for future research into breast cancer awareness management in Malaysia. We conducted content analysis of 38 articles related to breast cancer in Malaysia retrieved from EBSCO, Emerald, ProQuest, SAGE, Science Direct, Springer and the Taylor & Francis database. This paper begins with a brief overview of breast cancer incidence and screening management in Malaysia before providing details on the methodology applied and a descriptive discussion on the articles. The paper concludes with an agendum for future research related to the identified issues and challenges facing breast cancer awareness in Malaysia.

BREAST CANCER INCIDENCE AND SCREENING MANAGEMENT IN MALAYSIA

Breast cancer is the most common cancer among Malaysian women from all ethnic groups (Lim & Halimah, 2008). Data retrieved from the International Agency for Research on Cancer (IARC) database (GLOBOCAN) indicate that Malaysia is estimated to have 5400 new cases of breast cancer and 2500 cases of mortality in 2012. The most common cases of cancer among females are breast, cervix uteri and colorectum cancer. The highest number of deaths among women in Malaysia is caused by breast cancer (2500 deaths), lung cancer (1300 deaths) and colorectum cancer (1000 deaths). Comparison of breast cancer incidence and mortality among women in Southeast Asia indicated that Malaysia is among the top 10 countries listed, with high incidence and mortality rates. The Age Standardised Ratio (ASR) of breast cancer mortality in Malaysia is the highest at 38.7 per 100,000 population, while the ASR of breast cancer incidence is higher than for countries such as Thailand (29.3), Myanmar (22.1), Cambodia (19.3) and Laos (19) (GLOBOCAN, 2012). It is estimated that by 2030 the new cases of breast cancer in Malaysia could be as high as 9248 cases with 4546 deaths due to breast cancer (GLOBOCAN, 2012). Comparatively, the number of new breast cancer cases is expected to increase to 28% by the year 2020 and further increase to 76% by the year 2030 (Table 1).

Table 1

Prediction of number of new cases and breast cancer deaths in the years 2012, 2020 and 2030 in Malaysia

Year	Incidence (Number)	Increase (%)	Mortality (Number)	Increase (%)
2012	5410	-	2572	-
2020	6977	28	3386	31
2030	9248	70	4546	76

Source: Adopted from GLOBOCAN, 2012

The establishment of breast cancer prevention management in Malaysia is mainly anchored towards promoting early detection of breast cancer and screening practice with the aim of reducing the number of incidence and deaths (Ministry of Health Malaysia, 1995). The rationale of substantial nationwide efforts that emphasise on early detection of breast cancer and screening practice is in line with the mission of the Malaysian National Cancer Institute to promote breast cancer awareness to help the government to curb further escalation of breast cancer mortality, which in turn would enhance the cost effective management of breast cancer. In Malaysia, the implementation of screening and management of breast cancer through BSE, CBE and mammogram screening is guided by the Malaysian Health Ministry's "Clinical Practice Guidelines" (CPG: Management of Breast Cancer [2nd ed.], November 2010). Mammogram screening is recommended for women aged 50 years old and above, while women aged 40 and above are encouraged to pursue CBE annually and women aged 20 to 39 are encouraged to perform CBE once every three years. Women are encouraged BSE on a monthly basis regardless of their age.

Maznah, Sofea and Awang (2011) indicated that screening practice in Malaysia provide an opportunity for tests and examination to detect disease not only in people who have cancer indications but also in those who do not have any symptoms. Mammogram screening services are offered on a voluntary basis at no cost (free of charge) at all public hospitals in Malaysia (Maznah et al., 2011b) and on a subsidised rate (initiated by the Ministry of Women, Family and Development in 2007) at private clinics and hospitals. Until the year 2013, the Malaysian government through the Ministry of Women, Family and Development allocated a total of RM54.2 billion for a mammogram subsidy programme particularly among citizens with a monthly income of below RM5000 (Hamidun, 2014). Meanwhile, with regards to BSE, as stipulated in the Ministry of Health's "Clinical Practice Guidelines on Management of Breast Cancer", the practice of BSE is recommended to educate and promote self-health responsibility (Ministry of Health Malaysia, 2010). In Malaysia, breast cancer prevention management is anchored by the Ministry of Health, non-profit organisations and private companies (as a part of their corporate social responsibility).

METHODOLOGY

This section describes the method applied in the paper. As the first step, a structured review of articles dealing with common issues and challenges facing breast cancer awareness in Malaysia was completed. The search and identification of articles related to breast cancer awareness were conducted through a keyword search that included but was not limited to these words and phrases: breast cancer campaign, awareness, BSE, mammogram, CBE, early detection, breast cancer, breast screening, practice and barriers in breast cancer screening.

A total of 38 articles related to breast cancer in Malaysia published in EBSCO, Emerald, ProQuest, SAGE, Science Direct, Springer and the Taylor & Francis database search engines fit the review goal of this paper and were selected and analysed. In particular, latent content analysis (i.e. process of interpretation of content) within the qualitative summative content analysis approach was utilised in this study to describe the findings. The review goal of this paper was to synthesise the content of journal articles mainly to provide in-depth discussion on thematic issues underlying the problem statement, sample of respondents, applied methodologies, outcome and dependent variable measurement and determinant of Breast Cancer Awareness in Malaysia. Lastly, the findings were used to address the gaps in the review, generate a research agendum and present avenues for further research in addressing issues and challenges facing breast cancer awareness in Malaysia.

Prior to conducting the content analysis, the articles were categorized into four different streams of research in order to systemise the identified articles that were relevant to breast cancer awareness as illustrated in Figure 1.
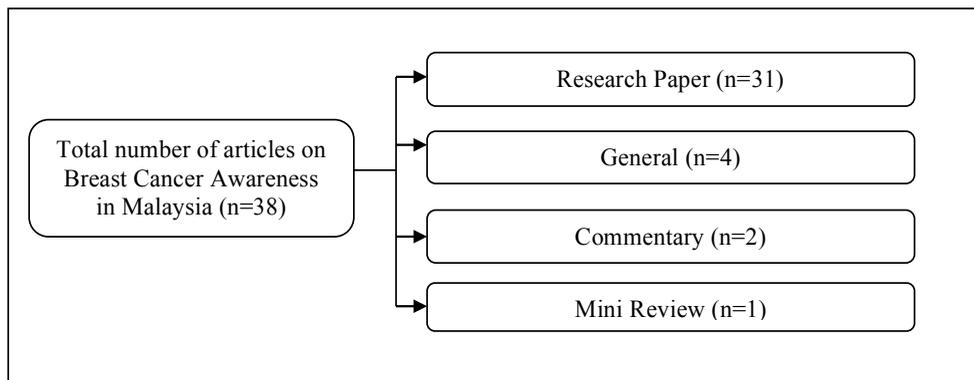
Figure 1. Research streams on breast cancer awareness campaign in Malaysia

The research papers on breast cancer awareness consisted of articles related to evaluation of breast cancer awareness (Hadi, Hassali, Shafie, & Awaisu, 2010); awareness and practise of screening procedure (including BSE and mammography) (Kanaga, Nithiya, & Noor Shatirah, 2011; Loh & Chew, 2011; Sami Abdo et al., 2011; Abdullah, Abd, Rampal, & Al-Sadat, 2011; Rosmawati, 2010); perception of breast cancer (Hadi, Hassali, Shafie, & Awaisu, 2010); knowledge related to risk factors, symptoms and practice of BSE (Mehrnoosh, Muhamad, Rosliza, Irmi, & Salmiah, 2011; Nor Afiah et al., 2011; Norsa'adah, Rusli, Imran, & Winn, 2005; Parisa, Mirnalini, Nor Afiah, & Hejar, 2008b; Laila, Khaldoon, Zuraidah, & Ahmed, 2011; Loh, Packer,

Yip, & Passmore, 2009; Pathmawathi, Oranye, Azimah, Nur Aishah, & Nora, 2013); patients' perception of cancer screening and early diagnosis (Maryam et al., 2013); practice and barriers towards BSE (Redhwan Ahmed, Dhekra Hamoud, Yuri, Chen, & Ali, 2011; Al-Dubai et al., 2012); practice and barriers towards mammography (Al-Naggar & Bobryshev, 2012) rural women's knowledge of breast cancer and screening methods (Maznah, Eng, Nur, & Nyuk, 2013); magnitude of diagnosis delay of breast cancer and its associated factors (Norsa'adah, Rampal, Rahmah, Naing, & Biswal, 2011); factors associated with BSE practice (Redhwan, Yuri, & Karim, 2012; Chee, Rashidah, Khadijah, & Intan, 2003; Maznah, Ng, Sadat, Ismail, & Bulgiba, 2011a); influence of sociodemographic factors on breast cancer delayed presentation (Sumarni et al., 2013); predictors of breast cancer screening (Maznah, Eng, Nur, Ranjit, & Lim, 2012); validation of Champion's Health Belief Model (CHBMS) among Malaysian women (Parisa, Mirnalini, Mohd Nasir, Hejar, & Nor Afiah, 2008a); experience of Malaysian women with breast cancer (Azlina, Imi Sairi, Zainal, Zulkifli, & Soon, 2013); causes of breast cancer and comparison among three races in Malaysia (Shadiya, Gogilawani, Akbariah, & Saidatul, 2012); and lifestyle and its association with breast cancer (Rozanim, Shamsul Azhar, & Noor Hidayah, 2006).

The commentary articles focused on assessing the implementation and implications of breast cancer prevention and control programmes in Malaysia (Maznah et al., 2011b); and evaluation of early detection and breast cancer treatment educational outreach programme message acceptance (Nur, Yip, Mohamed, Ng, & Farizah, 2007). As for the mini review articles, the core concern was epidemiology of breast cancer in Malaysia (Yip, Nur, & Ibraham, 2006).

Articles in the general stream were more concerned with providing an overview of the cancer spectrum in Malaysia Hisham & Yip, 2003, 2004; Lim, 2002, 2003). The common issue highlighted in this stream was the seriousness of the breast cancer pandemic as one of the leading causes of death among Malaysian women. These articles also unanimously suggested the importance of promoting early detection and screening as the fundamental approach in combating breast cancer along with the pertinent role of cancer treatment (facilities), palliation, rehabilitation (Lim, 2002, 2033) training and networking between the public and the non-governmental sector (Lim, 2002) in defining and refining the breast cancer strategy in the country.

CONTENT ANALYSIS FINDINGS

This section highlights and describes the contents analysis findings conducted on academic articles related to breast cancer awareness in Malaysia. The detailed information on the descriptive findings of these articles includes (1) thematic issues underlying the problem statement; (2) samples of respondents; (3) applied methodology; (4) outcome and dependent

variable measurement; and (5) determinants of breast cancer awareness in Malaysia.

Thematic Issues Underlying Problem Statement

Age standardised ratio (ASR), peak age, delayed presentation of breast cancer, risk factors and negative socio-cultural perception. The content analysis of 38 articles examined found the higher Age Standardised Ratio (ASR) and discussion on late peak age of breast cancer presentation in Malaysia in comparison to other Asian countries to be the main thematic issue underlying the problem statement. Data from Malaysia's National Cancer Registry (2006) were presented to support the evidence that one in every 19 Malaysian women have the possibility of developing breast cancer in their lifetime. The ASR for Malaysian women was at 39.3 per 100,000 of the population, which was much higher than for other Asian countries such as Beijing (24.6), Hiroshima (36.6), Chennai (23.9) and Seoul (20.8) (Lim & Halimah, 2008; Zainal & Nor Saleha, 2006). The discussion also depicted the variation in the breast cancer incidence rates among the three main ethnic groups in Malaysia. The ASR was highest at 59.9 per 100,000 of the population for Malaysian Chinese women and 54.2 per 100,000 of the population for Malaysian Indian women and the lowest at 34.9 per 100,000 of the population for Malaysian Malay women (Lim & Halimah, 2008).

The articles also described serious implication of delayed or late presentation of breast cancer among Malaysian women. Numerous articles in the review highlighted the alarming situation related to late stage breast cancer presentation in the country (Yip & Ibrahim, 2006; Abdullah, Abd, Rampal, & Al-Sadat, 2011; Zarihah et al, 2003; Hisham & Yip, 2003, 2004). As reported in the "Third National Cancer Registry Report" (2008), 30% to 40% of Malaysian women presented at later stages (Stage 3 and 4) of breast cancer compared to their counterparts in other developing countries (usually at Stage 1 and 2) (Yip & Ibrahim, 2006; Abdullah et al., 2011). Findings from preliminary work on stages of breast cancer diagnosis undertaken by the Penang Cancer Registry (which is a regional cancer register) during the period 1994-1998 reported that only 15.8% comprised Stage 1 breast cancer cases, while 46.9% were Stage 2 cases, 22.2% were Stage 3 cases and 15.5% were Stage 4 cases (Zarihah et al, 2003). Another study conducted between 1998 and 2001 at Hospital Kuala Lumpur (HKL) testified that 50 to 60% of breast cancer cases were presented at Stage 3 or 4 and only 5.2% were diagnosed during mammogram screening (Hisham & Yip, 2003, 2004).

Next, the review revealed that the peak age for breast cancer presentation in Malaysia was in the range of 40-49 years (Najwa et al., 2013). Apart from this, data from the University Malaya Medical Centre reported that the number of newly diagnosed breast cancer cases had increased from 60 to 330, of which 50% occurred at the age of below 50 years old (between

40-49) since the establishment of breast cancer in 1993 until 2004 (Yip et al., 2006). The largest group was Malaysian Malays (48%), followed by Malaysian Chinese (35%) and Malaysian Indians (17%). In fact, some of the articles reviewed also associated the peak age of breast cancer with the much younger age of 40-49 among Malaysian women compared to 50 to 59 in Western countries, where woman faced rapid changes in lifestyle resulting from industrialisation, a sedentary lifestyle and consumption of unhealthy food (Rozanim, Shamsul Azhar, & Noor Hidayah, 2006; Shadiya, Gogilawani, Akbariah, & Saidatul, 2012).

Apart from this, another significant theme confronting breast cancer awareness in Malaysia was the issue of negative socio-cultural perception. It was reported that socio-cultural perception of breast cancer among Malaysians was an important contributor to the presentation of breast cancer at the advanced stage in Malaysia (Hisham & Yip, 2003). Among the socio-cultural factors that projected breast cancer in a negative light was a strong belief in traditional medicine, negative perception of the disease, poor education, poverty, fear and denial (Hisham & Yip, 2004). It is suggested that improvised public health education and communication can inhibit such socio-cultural perception among Malaysian women to create awareness on health-seeking behaviour.

Target Groups

The target audience on breast cancer awareness studies in Malaysia covered a wide range of the population, including students (Hadi et al., 2010a; Redhwan Ahmed et al., 2011; Mehrnoosh et al., 2011), teachers (Parisa et a., 2008a), female staff at public universities (Nor Afiah et al., 2011; Maznah et al., 2011a), production workers in electronic factories (Chee et al., 2003), general samples of various ethnic groups of women (rural and urban) (Hadi et al., 2010b; Maznah et al., 2013; Redhwan et al., 2012; Maznah et al., 2012; Norsa'adah et al., 2005; Kanaga et al., 2011; Sami Abdo et al., 2011; Al-Dubai et al., 2012; Al-Naggar & Bobryshev, 2012; Rosmawati, 2010) as well as among women diagnosed with breast cancer and breast cancer patients (Maryam et al., 2013; Norsa'adah et al., 2011; Sumarni et al., 2013; Azlina et al., 2013; Loh & Chew, 2011; Laila et al., 2011; Rozanim et al., 2006), among hospital personnel (Abdullah et al., 2011) and women with a positive family history of breast cancer (Pathmawathi et al., 2013). Overall, the selection of the target segment of respondents to breast cancer awareness could be grouped into three main categories, namely student, breast cancer patients and specific interest groups.

The student population accounted for three studies (n=3). The selection of respondents comprised all races of students from public and private universities

i.e. Universiti Sains Malaysia (USM), University Putra Malaysia (UPM) and the Management and Science University (MSU) (Hadi et al., 2010a; Mehrnoosh et al., 2011; Redhwan Ahmed et al., 2011). Student respondents ranged in age from 15 to 44 years old comprising different levels of education including undergraduate to post graduate. The most frequent variables assessed among the student segment were related to breast cancer general knowledge, risk factors, symptoms, availability of screening examinations, perception of management and breast cancer treatment and also BSE practice.

Studies on breast cancer awareness also focused on exploration related to breast cancer patients histologically confirmed as having breast cancer in medical centres. These studies typically explored factors associated with delayed presentation of breast cancer, perceived health belief (benefit, barriers, cues to action, risk), a fatalistic view of cancer, experience and illness transition process, self-discovery of symptoms and seeking-treatment behaviour. The identification and selection of respondents was concentrated at centres that provided oncology services such as the Penang General Hospital, Kuala Lumpur Hospital, Radiotherapy and Oncology Clinic in Kuala Lumpur and Kelantan Public Hospital.

Apart from this, the review also found that the researchers were more interested in gathering specific knowledge on breast cancer from very specific categories of respondents. Among the categories were high risk groups such as women with a positive family history of breast cancer and the most influential group, as they could act as advocators for breast cancer knowledge and awareness, comprising teachers and staff at public universities and hospitals. It was postulated that the selection of specific segments of the population compared to the general population would enhance researcher knowledge on the challenges to providing services regarding breast cancer awareness and screening programmes (Nor Afiah et al., 2011).

Applied Methodology

Out of the total of 38 articles reviewed, the majority opted for the cross-sectional design of study. The cross-sectional study has become the dominant approach used by many social scientists for evaluating knowledge of breast cancer risk factors, symptoms and methods of screening. Of the 19 cross-sectional design studies (n=19), four (n=4) used the face-to-face interview using a validated questionnaire, while 15 (n=15) used the self-administered questionnaire. As for the sampling methods, four studies (n=4) used convenient sampling, five (n=5) used systematic sampling, another four (n=4) used simple random sampling, two used cluster sampling and one used multi-stage random sampling, while the last used purposive sampling.

Relatively, only a small portion of the studies used qualitative methodology to collect information on perception of cancer screening and early diagnosis. The qualitative approach was used for collecting

in-depth information from cancer patients (Maryam et al., 2013; Azlina et al., 2013), surgical outpatients and the oncology clinics at the public hospitals in Penang, Kuala Lumpur and Kelantan. In both studies, the semi-structured interview was conducted to capture the major themes of awareness of breast cancer, perceived benefit, barriers to cancer screening, cues to action, uncertainty about the experience of illness, transition process and fatalistic belief regarding breast cancer (Maryam et al., 2013; Azlina et al., 2013).

The review also found three (n=3) studies that employed the matched case-control study approach at the referral hospital in Kelantan (Norsa'adah et al., 2005), the Penang General Hospital (Laila et al., 2011) and the Breast Clinic Hospital, Kuala Lumpur (Rozanim et al., 2006). Only one study used the pre-intervention study setting to determine factors associated with the acceptance of breast cancer screening among the general population (Maznah et al., 2012). One pre-test and post-test survey were conducted by Loh and Chew (2011), and the findings indicate that self-reported monthly BSE practices had increased from 17% at pre-test to 67% at post-test. In this research, a mixed method explanatory study was conducted among 707 samples of hospital personnel to determine the factor and barriers associated with mammography screening. Only one study was conducted to understand the health disparity on health literacy. A secondary analysis of data collected during the clinical trial among newly breast cancer-diagnosed women was performed to examine baseline knowledge (Loh et al., 2009) among the women.

Outcome and Dependent Variables Measurement

The findings portrayed a multitude of dependent variables used to measure breast cancer awareness in Malaysia. Awareness accounted for the highest percentage of measured dependent variables. The measurement deployed on assessing awareness included risk factors for breast cancer, source of information, perception of risk, family history of breast cancer and perception of treatment. Besides assessing awareness, a few of the studies also attempted to identify the relationship between knowledge of breast cancer risk, screening and symptoms of breast cancer on the practice of BSE, CBE and mammography (Mehrnoosh et al., 2011; Maznah et al., 2013).

Apart from awareness, perception of cancer screening accounted as the second highest dependent variable identified in the studies of breast cancer awareness in Malaysia. The perception measurement included health belief (benefit, risk and barrier) and perception towards treatment and outcomes. Meanwhile, the independent variables included demography, family history, factors associated with delay diagnosis; screening behaviour, source of information on breast cancer and breast cancer screening, lifestyle and its association with breast cancer and barriers to screening behaviour.

The self-reported practise of BSE, CBE and mammography (i.e. whether the individual had ever performed screening and frequency of screening) were denoted as the main outcome measurements. The outcome measurements were reported via quantitative and qualitative surveys through the semi-structured interview, face-to-face interview and questionnaire. Meanwhile, in the qualitative exploration studies, the measurement of outcome was presented in the form of thematic content analysis comprehension. The main method used to collect the measurement outcome in qualitative study was the interview.

Determinant of Breast Cancer Awareness in Malaysia

The analysed articles disclosed that various factors were capable of determining or influencing the effectiveness of the breast cancer awareness promotion effort in Malaysia. Based on the systematic review of the articles, the knowledge of breast cancer, perception of breast cancer management and treatment outcome were found to be important predictors of breast cancer awareness in several studies (Hadi et al., 2010a, 2010b). Individuals who viewed themselves as knowledgeable about breast cancer risk factors and aware of the importance of early detection are more likely to actively initiate the screening practice compared with those who perceived themselves as not knowledgeable and unaware.

Apart from this, the results also found that university students had inadequate knowledge of breast cancer, the practice of BSE and recommendation to take advantage of CBE (Hadi et al., 2010a; Mehrnoosh et al., 2011). Overall, the results indicates that there was a deficit of knowledge of risk factors, signs and symptoms and a low response rate to the practice of BSE. Redhwan Ahmed et al. (2011) found that fear of being diagnosed with breast cancer, lack of knowledge and not having symptoms were the main barriers for not practising BSE among university students. Intensifying the breast cancer awareness campaign to focus on the importance of early detection and reporting of any abnormalities to the health authorities are suggested as a solution to overcoming inadequate knowledge and awareness among university students.

Studies of breast cancer patients discovered that a negative attitude towards treatment, dependence on alternative therapy, false-negative diagnostic tests, breast ulcers, non-cancer interpretation and palpable axillary lymph nodes played an important role in delayed presentation and eventually to delayed diagnosis in Malaysia (Norsa'adah et al., 2011). Another study conducted among patients diagnosed with primary breast cancer established that divorced/widowed women and women who have never performed BSE were more likely to delay breast cancer presentation to health authorities (Sumarni et al., 2013). Therefore, it is suggested that breast cancer awareness campaigns should incorporate the call for early diagnosis and treatment (before the tumour enlarges, spreads to the lymph nodes and is classified as being in metastasis stage)

together with the educational promotion of early detection. In a separate study by Norsa'adah et al. (2005) on risk factors and association with breast cancer among 147 histologically confirmed breast cancer patients, risk factors such as null-parity, obesity, the use of contraceptive pills and family history were significantly associated with breast cancer. Thus, it is suggested that the importance of having an ideal BMI, bearing children and caution among women with a family history of breast cancer on the use of contraceptive pills should be integrated in promoting risk factors.

A study on pre-intervention community survey conducted by Maznah et al. (2012) established that women who had a previous experience of attending CBE had a strong influence in promoting BSE and mammogram. Furthermore, the findings also posited that relatively, women who received strong support from their husband were more likely to attend CBE compared with women who had an unsupportive husband. Thus, the promotion of breast cancer awareness in Malaysia is urged to change in approach of promoting CBE from opportunistic screening to more active, regular CBE practice as well as to include awareness activities among male respondents. Nor Afiah et al. (2011) found that the mass media were the major source of information on breast cancer screening (92.2%), followed by health promotion activities and health education brochures (73.8%), books (69.6%), the Internet (66.9%), friends (64.8%), the health team (58.7%), family members (35.2%) and other

sources (2.1%). Meanwhile, the priority on preferred sources of information on breast cancer screening were the health team (71.4%), health education brochures (54.8%), the mass media (50.3%), the Internet (49.4%), health promotion activities (47.3%), books (34%), friends (21.7%), family members (9.6%) and other sources (0.9%). Given the fact that the health team and health education brochures are the top two preferred choices of information source among the respondents, it is suggested that appropriate measures be mobilised to plan and disseminate information to the public.

Studies on the relevancy of advocating BSE as part of breast cancer awareness screening found that BSE practice needs to be instilled as part of information dissemination to encourage women to be aware of the health of their breasts and be able to identify any changes before reporting to health authorities (Chee et al., 2003). Furthermore, Maznah, Ng, et al. (2011) proposed that BSE was still a relevant screening tool as findings indicated that 85% of breast lumps were detected by respondents themselves while conducting the BSE. It is suggested that BSE practice is capable of increasing the chances of detecting breast abnormality, leading to earlier breast cancer discovery. According to Loh and Chew (2011), although the effectiveness of BSE practice still remains unsolved (i.e. to lower mortality and increase of anxiety), the results of educational interventional studies provided evidence that 80% of breast cancer survivors had self-detected their lumps.

The findings from qualitative studies using the in-depth interview found that there was significant interaction between health belief determinants such as personal susceptibility, perceived barriers (financial constraint; lack of knowledge), perceived benefit (lack of trust in screening and negative results) and negative behaviour towards cancer screening in terms of screening behaviour (Maryam et al., 2013). Perhaps the most common finding in the literature on qualitative studies on cancer communication was the inadequacy and misconception of breast cancer awareness, treatment and the future of breast cancer patients (Azlina et al., 2013; Maryam et al., 2013).

DISCUSSION ON GAPS AND AVENUES FOR FURTHER RESEARCH

This section leads a discussion on the gaps in the review and avenues for further investigation to cultivate, instil and ameliorate the promotion of breast cancer awareness in Malaysia.

This article has attempted to analyse the common issues and challenges portrayed in past studies on breast cancer awareness in Malaysia. The systematic review of past literature indicated inadequate knowledge of breast cancer and lack of practice of BSE among young Malaysian women were the most common issues inhibiting the success of public health intervention health programmes. Thus, the great challenge is to efforts to enhance health communication channels in creating awareness of breast

cancer among young women in Malaysia. The findings indicated that there is an urgent need to develop continuous and effective health communication on breast health awareness campaigns among the present generations of young women in Malaysia (Hadi et al., 2010a; Mehrnoosh et al., 2011; Redhwan Ahmed et al., 2011). Increasing breast cancer knowledge concerning the risk factors associated with breast cancer and the importance of early detection and cultivating an attitude of reporting any unusual breast changes to the health authorities will definitely help to reduce the mortality rate and health expenditure and build a healthy nation. Moreover, in the context of cultural issues and breast cancer awareness, it is suggested that more in-depth research is required to synthesise understanding of avoidance and ignorance of early detection methods. More in-depth information should be obtained through qualitative studies on the issue of BSE practice avoidance (Mehrnoosh et al., 2011). Besides this, Loh and Chew (2011) proposed that there was also a need to gain more in-depth investigation to understand the indicators of health disparity on breast cancer screening among different age, socioeconomic and educational backgrounds as well as among different ethnicities in Malaysia.

Apart from this, it was also found that little attention was given to the utilisation of theory and models as a foundation in the literature on breast cancer awareness research in Malaysia. Out of 31 research papers on breast cancer awareness, only three (n=3) provided a theoretical or health

behaviour model as the foundation of the study (Parisa et al, 2008a; Pathmawathi et al., 2013; Maryam et al., 2013). Among them was the adapted and modified version of the Champion Health Belief Model Scale (Champion, 1993) of the Health Belief Model. This model was used as the foundation for developing data collection instruments (questionnaire) (Parisa et al., 2008a; Pathmawathi et al., 2013). The dimensions of the Champion Health Belief Model includes the perceived barrier, susceptibility, benefit, health motivation (including general health, fear of breast cancer, fear of long-term effects of breast cancer, lack of confidence and preventive health practice). The study by Parisa et al. (2008a) ascertained that the translated version of the Champion Health Belief Model Scale was a valid and reliable tool for measuring health beliefs that influenced breast cancer screening (i.e. BSE, CBE and mammography) behaviour among Malaysian women. Thus, there is a need for further systematic study with appropriate attention on the use of the theory or health-decision model. It is important to note that the use of theory and model can make a difference in developing a strong foundation of the research framework, which gives greater possibilities in measuring the outcomes of any health intervention programmes.

The findings also indicate the need for future studies to address the relation of the barriers to screening patterns with other health belief variables such as perceived benefits, cues to action and susceptibility to allowing prediction of screening behaviour

and the variables to be integrated in disseminating health promotion messages (Maryam et al., 2013). Special attention should be given to understanding the impact of breast cancer illness and cultural influence on the survivorship plan among breast cancer patients for development of an appropriate education and supportive programme (Azlina et al., 2013).

In the context of breast cancer awareness among women from diverse geographical locations (urban and rural), it is suggested that different approaches and efforts are required to address the different sets of influencing factors (Maznah et al., 2013). Studies by Kanaga et al. (2011) and Maznah et al. (2013) confirmed that awareness of early detection is higher among women in urban areas compared with women in rural areas. Several factors including social status, level of education and knowledge differences among women in urban and rural areas are associated with different levels of awareness. According to Kanaga et al. (2011), there is an urgent need to intensify breast cancer awareness and enlarge the availability of screening centres in rural areas.

Another important issue highlighted related to the study on breast cancer awareness in Malaysia was the increasing breast cancer incidence rate among young women. According to Kanaga et al. (2011), the pattern of breast cancer occurrence in Malaysia showed that women at a very young age, compared with Western societies, were affected; this involved the factor of menopause and its impact

on cancer incidence. Numerous studies have suggested that a tailored health educational intervention is required to increase awareness among young women (Redhwn Ahmed, Low, & Zaleha, 2010; Sami Abdo et al., 2011). Thus, the challenge for health authorities and the related agencies in Malaysia is to draft and execute massive nationwide health promotion campaigns among the younger generations of Malaysian women by networking with schools and higher educational institutions. Among possible strategies that could be explored are the promotion of breast cancer activities by incorporating health communication channels such as social networking applications and sites that are synonymous and relevant to younger generations.

CONCLUSION

In conclusion, it is hoped that this paper has shed some useful insights into the issues and challenges on breast cancer awareness research in Malaysia and particularly among those scholars who are interested in understanding the fundamental situation of breast cancer awareness not only within the Malaysian context but also in the field of health promotion campaigns.

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SOCIAL SCIENCES & HUMANITIES

Review Article

Psychological and Social Factors of Depression Recovery: A Narrative Review

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ABSTRACT

Biomedical advancement has significantly contributed towards depression recovery but there are still populations who are affected, with limited access to health services. There is lack of attention paid to psychosocial factors that are helpful in depression recovery. This narrative review aims to examine the psychosocial factors in depression recovery through qualitative studies. Keyword searches were conducted using EBSCOHost, JSTOR, PsycARTICLES, PubMed, SAGE Journals and Scopus databases. Qualitative studies (n = 15) on psychosocial factors in depression recovery were identified. Review of the studies revealed the impact of psychological and social factors in the view of oneself and identity transformation throughout depression recovery and acceptance of self-initiated help-seeking behaviour that facilitated transformation of ill-self to better-self. The three main conclusions drawn from the review are (a) hope, optimism, resilience and self-efficacy; (b) working on oneself; and (c) social factors available for re-constructing of selves and functional lives. Enhancement and inclusion of psychosocial factors are needed in mental health policy. Future studies are suggested to focus on the ways of strengthening psychosocial factors at individual and community levels.

Keywords: Depression, narrative review, psychosocial, recovery, factors

INTRODUCTION

Depressive disorders are common mental disorders that have become some of the leading causes of disability worldwide, accounting for 9.6% of global years lived

with disability (Ferrari et al., 2013). In addition, studies have found that sub-threshold depression increased excess mortality and significantly reduced the individuals' quality of life (Cuijpers et al., 2013; Goldney, Fisher, Dal Grande, & Taylor, 2004). The rapid emergence of depression has prompted researchers and practitioners in conceptualising the intervention of and recovery from depression in patients. The advancement of biomedical sciences has contributed significantly to depression recovery since the 1950s, and a large body of well-established clinical trials and reviews on the efficacy of pharmacological therapies for depression is available (Boulenger, Loft, & Olsen, 2014; Brunoni et al., 2013). Similarly, considerable efforts have evidenced the efficacy of psychosocial intervention, including a wide range of psychotherapeutic approaches (Franklin, Carson, & Welch, 2015; Swartz, Grote, & Graham, 2014). In fact, depression is actually a very treatable medical condition.

Despite the established treatment options, there is significant variation in terms of availability and access to mental health treatment across the globe, where the countries with lower income have very limited access to services (World Health Organization, 2015). In line with the public health approach, in the absence of mental health specialists, there is a need to identify the helpful psychosocial factors and the appropriate actions to be taken by affected individuals to facilitate the recovery of depression (Jorm, 2012).

The review and literature on risk factors that are associated with depression are readily available (Dobson & Dozois, 2008; Galambos, Leadbeater, & Barker, 2004; Roh, Burnette, Lee, Lee, & Easton, 2016). However, there is less attention paid to the psychosocial aspects of depression recovery. Recently, two systematic reviews found that positive identity, self-esteem, high sense of coherence, and social support from friends and family members are protective factors against depression among minority youth (Cornejo, 2016; Hall, in press). Nevertheless, reviews on past quantitative studies that emphasised determining relationship and its magnitude between depression and psychosocial variables have overlooked the individuals' subjective experiences of how these variables were helpful for them (Kok, 2017). This review attempts to fill that gap by offering a narrative review on the psychosocial factors of depression recovery through the voice of lived experience. Despite the commonality of depression and the importance of this topic to mental health care professionals and policy makers, there is only a small volume of literature available on these subjects, which is rather context-specific and heterogeneous.

METHODS

A narrative literature review approach was used for this study. A narrative-synthesis approach was used to find answers for the central research question, which is, "What are the psychological and social factors of depression recovery?". The

selected published qualitative studies were used because the recovery process from depression sufferers is qualitative in nature and findings from the qualitative studies revealed detailed and rich subjective experience that were able to provide rich descriptions to answer the research questions. The narrative literature approach resembles meta-synthesis on a smaller scale (focusing on qualitative studies, rather than quantitative studies) for examining and providing an overview on current qualitative research in a systematic way. The main aim for using a narrative synthesis approach is to explore, summarise, and synthesise the past literature (Campbell et al., 2003) on the process of recovery from depression, specifically on the psychological and social aspects.

Databases and Screening Process

A comprehensive search was conducted using six databases, namely EBSCOHost, JSTOR, PsycARTICLES, PubMed, SAGE Journals, and Scopus. The search was done on research articles that were published between 2001 and 2016, and that described the process of recovery from depression, with specific contribution from psychological and social factors. The keywords that were used in the search were: (a) depression recovery; (b) psychosocial factors; (c) psychological factors; (d) social factors; (e) facilitating factors; (f) social support; (g) reciprocal relationships; and (h) inner strength. These keywords were used based on two criteria: first, relevant

components of our research questions were included (psychology, social, depression recovery); second, other keywords that could comprehensively retrieve data were used. Initially, the keyword "personality trait" was used, however, it was found that personality traits might not lead to recovery, so, it was replaced with "inner strength", which would include motivation and awareness, which might be helpful in the recovery. In the process of researching through the search engines, the keyword "reciprocal relationship" was included as the term "reciprocal" entails close relationships, such as family support and close friends, and is a more comprehensive term for relationships that could affect recovery. Besides, the keyword "facilitating" was used for expanding purposes in the hope of retrieving other factors and resources that can facilitate depression recovery. Multiple methods of search were employed. Besides automated searching, filtering was done, citations and references were followed and hand searched to collect literature relevant to the study.

The articles that met the following criteria were included in this review: (a) the study examined the recovery process from depression through psychological and/or social aspects; (b) the studies were published between 2001 and 2016, (c) the study design employed only qualitative methodology; (d) the study was peer-reviewed; (e) the study was in journal article form; and (f) the study examined the recovery process from mental disorders

through psychological and/or social factors. This review focused on the period between 2001 to 2016 because the epidemic and burden of disease of depression has been reported to have significantly increased in the new millennium (Andersen, Thielen, Bech, Nygaard, & Diderichsen, 2011; Greenberg at a., 2003; Thomas & Morris, 2003), and the recovery of depression has been emphasised during this period. Due to the scarcity of published studies that focused specifically on psychosocial factors during the process of recovery from depression, the authors manually added studies on process of recovery from mental disorders. The authors then handpicked studies that included depression in their study context and investigated the psychosocial factors in the recovery of mental disorders. For example, when the authors came across studies that had titles using the term "mental disorder" instead of "depression", the authors read the text. If the studies involved depression in their sample, the authors included them in this review.

On the other hand, articles were excluded if: (a) the study investigated solely biomedical aspects in the process of recovery from depression; (b) the study solely investigated the effects of psychological intervention in the process of recovery from depression, as the current study focuses only on individuals' psychosocial factors; (c) the study examined depression in the context of other medical conditions such as chronic diseases, trauma, comorbid mental disorders, or substance use; (d) the study was only in abstract, or in dissertation or thesis, newspapers, or experimental report forms; (e) the text was not written in English; or (f) the papers were presented in conference proceedings without subsequent publications in any academic journals. Manual filtering was carried out to exclude articles that did not meet the inclusion criteria. Understandably, the recovery of people who suffered solely from depression was very different as compared to the recovery of those who suffered from disease-invoked depression, trauma-related depression, comorbid depression, and depression with substance use. These inclusion and exclusion criteria were determined to reduce heterogeneity of the studies.

The initial search resulted in more than 2000 titles. After eliminating cases with comorbidity conditions, the researchers were left with 1095 titles. Three researchers (two with postgraduate qualifications in counselling or clinical psychology, and a postgraduate student of psychology) were involved in the screening and discussion process. When abstracts failed to provide sufficient information, the texts were read in full. Discussions were held when there were disagreements.

As shown in Table 1, the studies included in this review consisted of 13 qualitative studies (1, 3-10, 12-13-15) and two literature reviews (2, 11). There was only one study in which the discussion involved cultural differences (1). One study specifically discussed the experience

of depression among male athletes (3), one study investigated women's accounts of depression recovery (6), and one study explored adolescents' depression (10). The recruitment of participants was conducted with the help of health professionals from healthcare or clinical settings (7, 8, 9, 12, 13, 15), as well as through advertisement in public settings such as libraries, or through e-newsletters and flyers (1, 4, 5, 6, 8, 15).

Table 1
Summary of reviewed studies

No.	Author(s), Year	Title	Aim	Methodology	Findings
1	Brijnath, 2015	Applying the CHIME recovery framework in two culturally diverse Australian communities: Qualitative results	To explore the conceptualisation of depression recovery from two culturally diverse groups through application of CHIME (connectedness, hope and optimism about the future, identity, meaning in life and empowerment)	Semi-structured interviews & thematic analysis n = 58 30 Anglo-Australians (10 men, 20 women),28 Indian-Australians (13 men, 15 women with mild depressive symptoms) Age: 18 years old and above	Findings showed importance of hope, optimism, positive thinking, empowerment and connectedness for depression recovery but both groups experienced stigma and struggle in obtaining social support. Through spirituality, Indian-Australians found greater meaning in life while Anglo-Australians found meaning in illness itself.
2	Cruwys, Haslem, Dingle, Haslam, & Jetten, 2014	Depression and social identity: An integrative review	To review the role of social connectedness in the development of depression	Qualitative: Literature review Clinical depression included episode of major depression	Findings showed that greater number of social identities signify greater amount of resources and social connectedness that enabled greater resilience towards risk of depression

Table 1 *(continue)*

No.	Author(s), Year	Title	Aim	Methodology	Findings
3	Doherty, Hannigan, & Campbell, 2016	To explore the experience of depression during the careers of elite male athletes	To explore how elite male athletes experience depression during their sporting careers	Qualitative: Semi-structured interviews & interpretive thematic analysis n = 8 Caucasian male current/ former elite athletes with clinical depression Age: n/a	Findings revealed athletes' depression recovery involved social support, acceptance, emotional expression, motivation and identity transformation.
4	Dunn, Wewiorski, & Rogers, 2008	The meaning and importance of employment to people in recovery from serious mental illness: Results of a qualitative study	To enrich current literature by examining individuals' work perceptions and its effect on mental illness recovery	Qualitative: Semi-structured interviews using Grounded Theory n = 23 11 males, 12 females with various mental disorders, including major depressive disorder Age: 27-59 years	Findings found participants benefited from paid employment that provided personal meaning, self-esteem, financial stability and promoted recovery.
5	Kok & Lai, 2016	Not myself and the connected self: Cases of youth depression and recovery in Malaysia	To examine the personal depression experience among young people in Malaysia	Qualitative: Grounded theory n = 12 6 males, 6 females with atypical and mild depression	Findings showed depression as an uncontrollable and isolating experience. Recovery from depression requires social connectedness.
6	Lafrance & Stoppard, 2006	Constructing a non-depressed self: Women's accounts of recovery from depression	To investigate women's accounts of their experiences of depression recovery through discourse analysis	Qualitative: Semi-structured interviews & discourse analysis n = 15 females with self-reported history of depression Age: 22-66 years	Findings showed construction of recovery through personal transformation in context of overlapping versions of self-identity, letting go chores, rejecting demands and self-care.

Table 1 *(continue)*

No.	Author(s), Year	Title	Aim	Methodology	Findings
7	Mancini, Hardiman, & Lawson, 2005	Making sense of it all: Consumer providers' theories about factors facilitating and impeding recovery from psychiatric disabilities	To investigate the adults' accounts of recovery from serious psychiatric disability	Qualitative: Semi-structured interviews using grounded theory n = 15 participants with various mental disorders, including major depressive disorder Age = 40-55 years	Findings showed supportive relationships, meaningful activities and effective traditional and alternative treatments facilitated recovery by transforming ill-self to a sense of well-being.
8	Millner et al., 2015	Exploring the work lives of adults with serious mental illness from a vocational psychology perspective	To explore and compare the work perceptions of younger and older adults with serious mental illness and to examine the relevance of vocational psychology theory in this population	Qualitative: discovery-oriented qualitative research methodology modified version of consensual qualitative research (CQR) methodology n = 76 working adults with serious mental illness including major depressive disorder Age: 19-66 years	Findings showed the importance of achieving work motivation, personal accomplishments and self-efficacy in achieving recovery from mental illness.
9	Mizock, Russinova, & Millner, 2013	Acceptance of mental illness: Core components of a multifaceted construct	To examine the multifaceted construct of acceptance of mental illness	Qualitative: Semi-structured interviews using grounded theory n = 30 15 women, 15 men with various mental disorders, including major depressive disorder Age: 19-72 years	Findings revealed five components in the core characteristics of acceptance of mental illness, namely identity, cognitive, emotional, behavioral and relational.

Table 1 *(continue)*

No.	Author(s), Year	Title	Aim	Methodology	Findings
10	Simonds, Pons, Stone, Warren, & John, 2014	Adolescents with anxiety and depression: Is social recovery relevant?	To explore and understand the youths' experiences of anxiety and depression	Qualitative: Semi-structured interviews & thematic analysis n = 9 adolescents; 7 girls, 2 boys with anxiety or depressive disorders Age: 14-16 years	Findings showed youths' experiences of depression and anxiety as a process of loss of self (withdrawal), renegotiating the self (social re-engagement) and anticipation of future self (hope for symptom eradication).
11	Thoits, 2011	Resisting the stigma of mental illness	To further discuss the types of resistance in stigma, the labeling literature and the resistant condition	Qualitative: Literature review People with various mental disorders, including major depressive disorder Age: n/a	Findings found that willingness to resist stigmatisation enhanced self-esteem and sense of personal control.
12	Van Grieken, Kirkenier, Koeter, Nabitz, & Schene, 2013	Patients' perspective on self-management in the recovery from depression	To examine the perspectives towards self-management in depression recovery among patients.	Qualitative: Concept mapping n = 20; 9 men, 11 women with major depressive disorder Age: 25-57 years	Findings revealed effective self-management strategies involved proactive attitude, daily life strategies and rules, explanation of disease to others, social engagement, attention to oneself and sharing of experiences with fellow sufferers.
13	Villagi et al., 2015	Self-management strategies in recovery from mood and anxiety disorders	To explore the variety of self-management strategies used by people in recovering from affective disorder	Qualitative: Semi-structured interview & thematic analysis n = 50; 24 men, 26 women with various mental disorders, including major depressive disorder Age: 46-55 years	Findings showed effective strategies for recovery included social support, empowerment, social re-engagement, healthy lifestyles, support from mental health professionals and use of alternative treatment.

Table 1 *(continue)*

No.	Author(s), Year	Title	Aim	Methodology	Findings
14	Wisdom, Bruce, Saedi, Weis, & Green, 2008	'Stealing me from myself': Identity and recovery in personal accounts of mental illness	To investigate identity-related themes through examination of published self-narratives of individuals with serious mental illness and their family members	Qualitative: Thematic analysis of persona account n = 45; people with various mental disorders, including major depressive disorder Age: n/a	Findings showed the importance of hope and identity transformation in fostering recovery from mental illness.
15	Wong, Stanton, & Sands, 2014	Rethinking social inclusion: Experiences of persons in recovery from mental illness	To explore how people who recovered from mental illness understand and define relationships with communities in attempt of examining the dimensions of social inclusion	Qualitative: Semi-structured interviews & modified Grounded Theory n = 20; 11 males, 9 females with various mental disorders, including major depressive disorder Age: 32-65 years	Findings showed competencies in establishing connectedness through sense of affinity and community citizenship facilitated recovery from mental illness.

Note: n = Number of participants; n/a = not available

Table 2
Psychological and social factors identified from reviewed studies

Themes of Psychological Factors	Studies Reviewed	Themes of Social Factors	Studies Reviewed
Hope and/or optimism	Brijnath (2015); Wisdom, Bruce, Saedi, Weis, & Green (2008); Villagi et al. (2015); Mizock, Russinova, & Millner (2013); Thoits (2011)	Social identity and inclusion	Cruwys, Haslem, Dingle, Haslam & Jetten (2014); Wong, Stanton, & Sands (2014)
Acceptance	Mizock, Russinova, & Millner (2013)	Supportive relationship	Doherty, Hannigan, & Campbell (2016); Kok & Lai (2016); Mancini, Hardiman, & Lawson (2005); Villagi et al. (2015)

Table 2 *(continue)*

Themes of Psychological Factors	Studies Reviewed	Themes of Social Factors	Studies Reviewed
Self-empowerment − personal accomplishments − self-management	Doherty, Hannigan & Campbell (2016); Dunn, Wewiorski, & Rogers (2008); Lafrance & Stoppard (2006); Millner et al. (2015); Thoits (2011); Van Grieken et al. (2013); Villagi et al. (2015); Van Grieken et al. (2013)	Sense of belongingness and connectedness	Van Grieken et al. (2013); Cruwys et al., 2014; Wong et al. (2014)
Self-esteem and sense of mastery	Millner et al. (2015); Thoits (2011); Dunn et al. (2008)	Social relationships	Van Grieken et al. (2013); Kok & Lai (2016)
Resistance to stigma	Thoits (2011)	Social re-engagement	Van Grieken et al. (2013); Wong et al. (2014); Mancini, Hardiman, & Lawson (2005); Villagi et al. (2015)

The psychosocial factors that were identified from the studies in this review are summarised in Table 2. Data analysis protocol involved the process of integrating and summarising the main outcomes of the studies included (Perestelo-Perez, 2013). A thematic data analysis process was adopted to analyse the findings of the previous studies under two broad themes, namely psychological and social factors for depression. Through a process of induction, similar outcomes with similar unit meanings sentences and phases were identified to form categories and finally form more abstract themes that were relevant to answer the research questions. The term "resistance to stigma" reflects a psychological strength to resist stigmatisation, thus it enhances self-esteem (Thoits, 2011). Therefore, it was classified under psychological factors. Similarly, the phrases, "social identity", and "connectedness" were categorised as social factors. These two themes (psychological and social factors) provided insights into how the participants in previous studies recovered, and are essential factors in the recovery process.

RESULTS AND DISCUSSION

Psychological Factors

Among the fifteen studies, ten of them (1, 3, 4, 6, 8, 9, 11, 12, 13, 14) had samples who described their journey of depression recovery using terms such as hope, optimism, self-control, self-enhancement, self-efficacy, self-improvement, self-discovery, self-care, personal control, sense of mastery, empowerment, and resistance to stigma. Hope is the most crucial element in drawing people with depression closer towards treatment, while empowerment is another important aspect through which people with depression gained self-worth, motivation,

and confidence in moving forward to recovery.

Brijnath (2015) and Wisdom, Bruce, Saedi, Weis, and Green (2008) examined the aspect of hope in depression recovery, while Mizock, Russinova, and Millner (2013) discussed the multifaceted constructs on acceptance of mental illness. On the other hand, Villagi et al.(2015) examined the strategies that were used for depression recovery by asking 24 men and 26 women participants in Canada, aged 18 and above to describe their respective strategies. It was found that 42% of them had experienced depression before. From the above four studies (1, 9, 13, 14), it was found that hope or optimism was the main motivator for depressed patients to self-help or seek help and to continue undergoing treatment, as they held the belief that they would eventually recover from depression. Hope involved positive thinking, belief in recovery, and embracing the aspirations for future self (Brijnath, 2015) or the positive attributes of old self (Wisdom et al., 2008). As reported by Mizock et al. (2013), "I could experience certain things that would bring me happiness. The hope of that, that could happen, gets me through the day, honestly" (p.101).

Furthermore, some of those who suffered from depression utilised downward social comparison with those who suffered more severe depression to achieve higher levels of optimism, by seeing how things had improved (Villagi et al., 2015). Thoits (2011) confirmed the comparison with more

severe mental illness patients as an effective coping strategy. These five studies (1, 9, 11, 13, 14) had a common similarity in findings, where the participants had hope for the future or a sense of hope for future selves.

Seven articles discussed empowerment, namely Doherty, Hannigan, and Campbell (2016), Dunn, Wewiorski, and Rogers (2008), Lafrance and Stoppard (2006), Millner et al. (2015), Thoits (2011), Van Grieken et al. (2013), and Villagi et al. (2015). The aspect of empowerment discussions can be broadly categorised into two dimensions, which are empowerment of oneself through personal accomplishments, and self-management or self-care.

Furthermore, personal accomplishments that raised self-esteem and sense of mastery were essential in depression recovery (Millner et al., 2015). Thoits (2011) has also highlighted the debilitating effects of low self-esteem due to stigmatisation on the prognosis of recovery from depression. In order to cope with stigmatisation, Thoits (2011) distinguished two types of resistance towards stigma, namely deflecting and confronting. He identified resistance as an important factor in the recovery of depression as it will be helpful in gaining self-esteem and increasing self-control. When individuals are stigma-resistant, they will be able to dismiss the threat that was imposed on their self. Stigma of mental illness in general, and depression in particular is very common. Thoits (2011) listed other coping strategies that effectively manage symptoms in the recovery process,

such as avoidance, associating with people who do not stereotype, and comparison with less well-to-do patients.

Moreover, engaging in employment provides people with depression a sense of mastery, as well as greater access to both psychological and social resources. Dunn et al. (2008) identified the ability to engage in paid work (employment) as central to recovery as it fostered pride and self-esteem.

On the other hand, self-management was used to enhance the empowerment within individuals who were suffering from depression. Van Grieken et al. (2013) and Villagi et al. (2015) conducted studies with the aim of examining the various self-management strategies that were utilised by patients diagnosed with depression, aged 18 years and above in reducing depressive symptoms. In another study by Van Grieken et al. (2013), 50 self-management strategies that were used by participants in their recovery process from depression were grouped into eight clusters, which consisted of a proactive attitude towards depression and treatment, daily life strategies and rules, explanation of the disease to others, remaining socially engaged, engaging in activities, having structured attention to oneself, and maintaining contact with fellow sufferers and others. A proactive attitude towards recovery empowered the depressed individuals to seek treatment for their own mental illness, thus increasing their prognosis in recovery (Van Grieken et al., 2013). Similarly, a study by Villagi et al. (2015) identified 60 self-management strategies which were compiled into fifteen

themes that were later categorised into social, existential, functional, physical, and clinical contexts. Self-care (3, 6) and self-management strategies such as setting small goals were used to gain greater control and responsibilities over self and the recovery process (Villagi et al., 2015).

In these seven studies (3, 4, 6, 8, 11, 12, 13), the researchers found that empowerment was gained through personal accomplishments such as heightened self-esteem. Self-care through self-management strategies acts as a guide for depressed people to find their unique ways to fight against depression. The combination of personal accomplishments and self-management strategies provided the empowerment that is needed as a strong resource for motivation, confidence, and the building of a proactive attitude for better recovery prognosis.

Social Factors

Among the 15 studies that the researchers reviewed, eight studies (2, 3, 5, 7, 8, 12, 13, 15) had respondents who described their journey of depression recovery through social factors such as social meaning, social recovery, peer relationships, social activities, reciprocal relationships, connectedness, social relationships, social capital, social networks, belonging, community, social identity, and social re-engagement. Social resources act as a foundation for depressed people to gain courage to step into society once again, while social-re-engagement was an important catalyst in depression recovery.

The researchers, Cruwys, Haslem, Dingle, Haslam, and Jetten (2014), and

Wong, Stanton, and Sands (2014) examined the facilitating effects of social identity and inclusion on depression recovery. A study by Van Grieken et al. (2013) confirmed the importance of socialising with people and contact with fellow sufferers in order to initiate the recovery process from depression. Depressed people gained connectedness with the world through interactions with friends and family (Kok & Lai, 2016). As shown in the study by Cruwys et al. (2014), social support can also be obtained by establishing social identities that provide purpose to life, encourage the gain in social support, and embrace the sense of belonging in deterring depression. Through its capacity for generating a sense of belonging and connectedness, social identities facilitated the flow of social influence in deterring self-criticism and self-harm, where self-criticism and self-harm could jeopardise the prognosis for depression (Cruwys et al., 2014). Similarly, another study conducted by Wong et al. (2014) examined the dimensions of social inclusion through the exploration of the mental illness recovery experiences of 20 participants, heterogeneous in psychiatric diagnoses, gender, sexual orientation and gender identity, and living environments. It was found that connectedness and citizenship were gained through social inclusion in mental health communities that fostered reciprocity in the sharing of experiences and feelings. Social support from significant others served as a turning point in depression development, from manifestation to recovery (Doherty, Hannigan, & Campbell, 2016). Kok and

Lai (2016) identified the facilitating effect of psychosocial support, which acts as an important element in depression recovery.

Van Grieken et al. (2013), and Wong et al. (2014) discussed the importance of social re-engagement on depression recovery. It was found that social re-engagement not only acted as a catalyst for depression recovery, but also provided social meaning to individuals' lives. This might be due to the fact that depressed people gained connectedness, self-worth, and a sense of belonging in the community through social re-engagement. Van Grieken et al. (2013) depicted that by re-engaging in activities that were regarded as entertaining and meaningful, depressed people were able to gain back their responsibilities and sense of control over their own lives. Furthermore, some individuals with depression re-engaged in the society through participation in community activities that advocated for causes (Wong et al., 2014).

The authors found that psychological factors and social factors impacted the individuals' views of themselves during depression recovery. When the individual accepted himself or herself, this self-acceptance initiated the help-seeking process, which then led to the identity transformation that is critical for depression recovery. Psychological factors and social factors both acted as catalysts in facilitating the identity transformation process, from ill self to better self. This in turn, further facilitated the recovery process from depression. However, the definition of recovery was found to be varied. Villagi et. al (2015) distinguished two categories

of recovery in mental health conditions, namely clinical recovery and personal recovery. The former refers to reduction of symptoms, and the latter looks at the change of attitudes, values, goals, or roles, even in the presence of mental illness. This view of different definitions was echoed by Simonds, Pon, Stone, Warren, and John (2014), as they also hold that recovery might mean a complete symptomatic recovery for some people, while for others, recovery could be a process of regaining mental well-being, or living meaningfully in the presence of symptoms. In fact, mental health and mental illness should be understood in a continuum, instead of in a binary category, with or without illness. Recovering from depression is a process of a gradual transition from the effects of 'illness' to a healthy life. This meaningful life component identified by Simonds et al. (2014) can neither be categorised under psychological nor social factors. Perhaps meaningfulness in life belongs to both psychological and social aspects. Research identifies meaningfulness in life to be obtained by engaging in meaningful activities in a social context with strong relational components (Kok, Goh, & Gan 2015). After conducting this study, the researchers believe that we need to provide a more supportive and less judgmental (with less stigma) environment so that depressed people can derive some hope from social interaction, to help them overcome depression.

The findings of the present study are also supported by other studies. Villagi (2015) holds that self-management strategies

are able to facilitate personal recovery, and is thus helpful in reducing depressive symptoms. This study highlights the importance of social connectedness, which is in accordance with Jose and Lim's (2014) view that being connected with other human beings is effective in reducing depressive symptoms. Recent studies emphasise online social support, which is helpful to provide social connectedness (Nimrod, 2013; Rice et al., 2014). The role of this virtual social support can be further investigated among the young people in this internet-savvy era.

IMPLICATIONS

To the best of the authors' knowledge, this is the first review of its kind that specifically focuses on psychosocial factors in the recovery of depressive disorders. The findings of this review provide a fundamental overview of the current state of knowledge in the area, and informs future studies. All the studies included in this review are qualitative in nature, covering a variety of population. This approach allows the review to be more comprehensive, in-depth and contextualised.

Clinically, psychosocial interventions have already been relatively well integrated into current mental health care systems. This review may further inform mental health professionals about the facilitative psychosocial factors in the journey of recovery from depression. In fact, many of these psychosocial factors are modifiable and can be enhanced by evidence-based psychosocial intervention. The expansion and enhancement of these favourable factors

must be included in the mental health care plans of individuals with depression.

LIMITATIONS

There are several noteworthy limitations to this review. First, while qualitative studies enabled in-depth exploration of the experience of and the recovery from depression, the common limitations that these studies shared were their small sample size and possible biases. In addition, the heterogeneous nature of the studies included in this review does not allow meta-synthesis of data and results. The studies varied in terms of participants' diagnoses and severity of depressive disorders. Specifically, people who suffer major depressive disorder have a different recovery journey from those who live with persistent depressive disorder. Also, other psychopathological factors, such as age of depression onset, duration of living with depression, presence or absence of other psychiatric co-morbidity, may significantly influence the experience of recovery. Furthermore, majority of the studies included in this review were conducted within Western countries, which may have a certain extent of cultural bias.

There is an established base of research employing quantitative analyses of psychosocial factors that are associated with recovery of depression. However, it was beyond the scope of the current review to assess quantitative findings. It is recommended that future reviews evaluate quantitative studies using a meta-analysis approach in this area. It would also be useful for future reviews to cover more extended periods of literature (for example, studies since the 1900s), to observe if there are changes in emerging themes over time.

CONCLUSION

The studies that employed a qualitative approach on psychosocial factors of depression recovery within the time frame of this review have limitations in terms of scope and population. In this review, a range of psychological and social factors was identified. It is acknowledged that the findings of studies that have been reviewed in this paper were influenced by the socio demographic settings in which the studies were conducted. Three main conclusions can be drawn from the studies included in this review: (1) hope, optimism, resilience, and self-efficacy, which are termed positive psychology capital by Luthans and Youssef (2004), are vital for the recovery of depression; (2) empowerment of oneself, which includes self-care, self-improvement, self-control, and self-discovery, appears to be another core psychological factor that may facilitate recovery of depression; (3) various social factors may provide platforms for individuals with depression to re-construct themselves and functional lives. Although these conclusions were developed from a small body of qualitative literature, undisputably, protective psychosocial factors have direct beneficial effects on the recovery of depression. This preliminary narrative review proposes that it may be valuable to further investigate the interplay of these psychosocial factors. To take advantage of the findings from this review,

future studies may also focus on the best practices that strengthen these facilitative psychosocial factors at the individual, community, and societal levels.

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Factors Influencing Juveniles' Perception of the Police in Karachi, Pakistan

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ABSTRACT

The main objective of this study is to explore the role of juveniles' personal observation and their poverty status in influencing their perception of the police. The article draws on detailed informal interviews with 34 male juveniles on probation in Karachi. This study found that besides family members, friends and the media, juveniles' personal observation of the police's negative activities in their neighbourhood and vicinities was the leading factor influencing their perception of the police. All 34 juveniles have seen the police engaging in negative activities (being involved in crime) in their vicinity. In addition, the juveniles' poor socioeconomic status was found to be an important factor in shaping their negative perception although it was not as significant as the police's practice of criminalising the poor. It was also found that the majority of the juveniles were tortured; these juveniles claimed that they were innocent and were falsely implicated in false cases by the police. These vicarious encounters reinvigorated their pre-established negative perception of the police. The article concludes that personal observation plays a major role in shaping juveniles' perception of the police in Karachi.

Keywords: Criminalisation of poor, juvenile justice, perception of police, socialisation, violence, Pakistan

INTRODUCTION

In Pakistan, there is no empirical evidence to show juveniles'[1] perception of the police, but there is evidence of the general public's perception of them. An ideal example would be a study by Akhtar, Rafiq, Asif and Saeed (2012) on the quality of services being provided by the police in the Punjab province of Pakistan. A total of 360 people were selected for the interview through a generic survey approach (Akhtar et al., 2012) but none of the interviewees was a juvenile or child. A similar type of survey was conducted by Jackson, Asif, Bradford and Zakar (2014) with 400 adults in Lahore, Pakistan, to investigate a link between four areas of personal experience of police corruption, their perception of the fairness and effectiveness of the police and their beliefs about the legitimacy of the police. However, some attempt in the field of juvenile justice has been made to understand different aspects of the connection between the law (theory) and actual practice, and this also includes details on the interaction between the police and juveniles (Iqbal,

2009; Sajid, 2009). However, they do not offer any information about the juveniles' perception of the police.

In many countries, much attention has been paid to the negative approach of the police in dealing with the public that has eroded the trust of young people in the police, making them less likely to turn to the police for help (Goodrich, Anderson, & LaMotte, 2014). Therefore, it is important to investigate juveniles' perception of the police. Knowledge and understanding of their perception of the police are important for practitioners, policy-makers and communities (Romain & Hassell, 2014; Flexon, Lurigio, & Greenleaf, 2009) as their perception "can influence the degree and type of interaction people have with the police and the degree of support provided to the police" (Khondaker, Lambert, & Wu, 2013).

The literature variously reports determinants of juveniles' perception of the police. Among the most significant determining factors are demographic characteristics (race, gender and age), crime-related variables (victimisation and perception of neighbourhood crime) and police conduct variables (personal and vicarious encounters) (Hurst, 2007). Geistman and Smith (2007) asserted that American youths' attitudes towards the police are inferences of an intricate set of personal characteristics, social environment and personal experience.

Juveniles who do not have direct interaction with the police may form perception of the police based on information

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[1]According to Section 2 (c) of the United Nations Standard Minimum Rules for the Administration of Juvenile Justice ("The Beijing Rules"), 1985, "A juvenile offender is a child or young person who is alleged to have committed or who has been found to have committed an offence" (OHCHR, 1985). In Section 2 (b) of the Juvenile Justice System Ordinance (2000) of Pakistan, a juvenile is a child who has not attained the age of eighteen years at the time of commission of an offence against which he or she is accused or alleged (Khoso, 2017).

from their friends, family and relatives who have had contact with the police. The theory of socialisation pays much attention on sources such as family, the neighbourhood, friends and media, stating that these sources have different levels of impact on the formation of juveniles' perception of the police, as most of the young boys and girls spend more time with their peers in the neighbourhood and schools than with their parents at homes (Brick, Taylor, & Esbensen, 2009; Janeksela, 1999). Additional research has suggested that the media, including music and song lyrics, offer an interesting source for further investigation in the field of socialisation of juveniles and the formation of their perception of the police (Shank, 1996; Bowler & Zawilski, 2007).

Demographic characteristics such as race, sex, gender and age have been considered the most influential in shaping juveniles' perception of the police (Brown & Benedict, 2007), and much attention is paid on the investigation of white and black juveniles (Nihart, Lersch, Sellers, & Mieczkowski, 2005; Geistman & Smith, 2007). The studies showed that vicarious (or maltreatment by the police) experience of juveniles with the police results in negative perception of juveniles of the police (Romain & Hassell, 2014; Flexon et al., 2009; Hurst, McDermott, & Thomas, 2005). If they have had bad experiences with the police in the past, juveniles are expected to form a negative attitude towards the police (Hurst, 2007).

The findings of past studies indicate that there is a relationship between perception of the police and socioeconomic status (Sampson & Bartusch, 1998; Brown & Benedict, 2002; Hagan, Shedd, & Payne, 2005; Avdija, 2010; Brunson & Weitzer, 2011). However, past research remains unable to offer the views of juveniles who are currently passing through the criminal justice system. The literature shows that the influencing factors are related to four main overlapping categories: demography and neighbourhood, prior police contact, vicarious experience and socialisation. However, in the fields of socialisation and demography, two important factors have not been taken into consideration very much. These are: (1) Personal observation of juveniles prior to contact with the police; and (2) Poverty with no or minimal education. Therefore, this current research sought to explore the role of the personal observation of juveniles and their socioeconomic status as these factors are assumed to have influenced their perception of the police either negatively or positively.

The Current Study

With delinquency becoming a bigger problem in societies, research into this area, as highlighted above, has also been growing, focussing on the factors that help to shape or form juveniles' (out of the criminal justice system) perception of the police. However, these studies lack evidence of juveniles' prior personal observation of police activities in their surroundings. Their observation repeat stories they have heard from parents, relatives, friends and media reporting or representation. Most

of the evidence recorded in past research is based on interviews with youths who were not in contact with the law at the time of the interviews. Additionally, the juveniles' socioeconomic status was not given full weightage in these studies. Most importantly, the literature lacks facts on perception of the police by juveniles who are currently passing through the criminal justice system, particularly such evidence from developing countries like Pakistan. The current study, thus, attempted to study what juveniles have seen and observed about police activities in their communities, as well as the role of their economic status in forming their perception of the police, especially in the context of the police's vicarious treatment in the Pakistani city of Karachi. Therefore, this article is a first and brief attempt to highlight Pakistani juveniles' perception of the police.

MATERIAL, CONTEXT AND METHODS

The findings of this study are based on detailed informal interviews conducted with 34 juveniles on probation with the Reclamation and Probation Department (RPD) of Sindh. Prior to interviewing the 34 juveniles, addresses and phone numbers of 30 former juvenile inmates were collected from the Youth Offenders Industrial School Karachi. It took many days to search for their whereabouts in extremely poor localities based on the given addresses in the megacity of Karachi. The researcher was able to locate some of the addresses but the families had moved to other places. With no success in finding those children based on their addresses, the researcher sought help from the RPD.

The RPD helped to arrange interviews with 34 juvenile inmates, eight of whom were interviewed in the district Malir Court, in the office of a probation officer, while 26 juveniles were interviewed in the City Courts Karachi, in the office of a probation officer. At that time, according to the Assistant Director RPD, only 40 juveniles were under the custody of the RPD in Karachi City. Some of these boys had come to mark their monthly attendance in the probation officers' office but the majority were called in by the probation officers to meet with the researcher. It took the researcher about eight days to meet them at different times, with each interview taking a minimum of one hour; however, some interviews took longer than two hours to talk about different aspects of the youths' life in the police station. This article focusses only on the treatment they received from the police and their perception of the police, as well as the factors that shaped their perception of the police, lock-up cells, courts and prisons. The researcher manually jotted down the young boys' answers about their sufferings in the criminal justice system of Pakistan on a writing pad using a pen. In the analysis, each boy (interviewee) was given a case number from 1 to 34 in the same sequence they were interviewed.

RESULTS

Ages and Families' Source of Livelihoods

Table 1
Juveniles' families' sources of livelihoods

No of juveniles	Source of livelihood of their fathers
15	Daily wage labourers
2	Rickshaw (a three-wheel small vehicle) drivers
1	Peon
2	Fishermen
1	Business – Recycling of garbage
2	Mechanics at motor workshops
1	Overlock operator in a garment factory
1	Plumber
1	Waiter at a restaurant
2	Workers at a welding workshop
2	Tailor masters, working at two different shops
4	Orphans who lived with their mothers and relatives; two of them used to collect garbage and sleep on the streets

Five of the interviewees were aged between 13 and 15 years, while the other 29 boys were between 16 and 18 years. Except for four of them, all the others stated that their fathers were the main bread earner of the family, but the men did extremely low paying work and belonged to the poor working class. Fifteen of the boys shared that their fathers were daily wage labourers in Karachi, two were rickshaw (a three-wheel small vehicle) drivers, one was a peon, two were fishermen, one had a small-scale business recycling garbage, two were mechanics at a motor workshop, one was an overlock operator in a garment factory, one was a plumber, one was a waiter at a restaurant, two were workers at a welding workshop and two were tailor masters working at two different shops. Four of the boys were orphans who lived with their mothers and relatives, while the final two used to collect garbage and sleep on the streets.

Charges

Most of the boys were charged on offences that were bailable in light of the Juvenile Justice System Ordinance's (JJSO), 2000, section 10, since all the offences carried a sentence of less than 10 years of imprisonment. Out of the 34, five of the boys had to be released immediately by the police as they were underage (below 15 years old); the JJSO provides immediate bail for children under 15 years of age.

Falsely Implicated

Twelve boys stated that they had been involved in unlawful activities, while 22 claimed that they were not involved in any crime or unlawful act but had been falsely implicated by the police and other parties in crimes they had not committed. One of the boys shared that his fault was pillion riding but the police made out the case as assault on the police. Another boy said that he had committed no offence, and his only crime had been sitting with problematic juvenile offenders in the neighbourhood. He did not know if his friends had previously committed any offences; he had been charged with the crime even though his

friends had repeatedly informed the police officials that he was innocent.

The Only Language the Police Know Is That of Money and Torture

Out of the 34 boys, four said that they had not been physically tortured by the police but they claimed that they had been harassed and mentally tortured, while the 30 other boys said that they had been physically and mentally tortured by the police. All the boys had been kept in police lock-ups with adults and 20 boys had been tortured severely. One of the young boys had even been tortured to the extent that he had been unable to stand and walk. Looking at his severe condition, the judge had not allowed his remand in police custody. All the boys stated that they had been handcuffed while in police custody, including when they were in front of the judge and had been dragged from the police station to the courtroom together with adults who had been accused.

One of the boys claimed, "The police did not physically torture me, but I saw many poor boys and men beaten by them for money" (Case 2). Another boy shared, "I was beaten most of the time at the police station" (Case 6). Another boy added that he had been physically tortured by police personnel through kicking, the use of fists, rolls and plastic pipes for beating and being turned upside down (Case 11). As a result of severe police torture, some of the boys had a negative view of the police. For instance, one boy disclosed that, "They only know to torture and kill" (Case 16), while another boy supported this view, stating that "They

know only two languages, money or torture" (Case 19). Another boy also shared view, which was also negative, "I did not know that they really beat humans like people used to beat animals. They treated us like dogs" (Case 17). A similar view was shared by another boy, who said that he had been beaten very badly and in one encounter, had been threatened with death (Case 28).

Juveniles' Personal Observation

When these boys were asked how they had learnt even before their arrest that the police were bad, the majority claimed that their perception was based on personal observation of the negative activities of the police; however, only nine boys shared this personal observation of negative police activities. The first interviewee offered a general image of the police in Karachi. He said, "You ask everyone on the street about the police, they will say one thing, 'The police are bad'" (Case 1). According to a 16-year old interviewee who had spent seven days in the police lock-up, he was not the only one who knew it; everyone in Karachi knew that the police were bad. The police caught young boys without any reason and created problems for poor people. He said that the name 'police' had come to signify 'fear' because "Everyone knows that they beat a lot and no one can stop them. Before my arrest I knew about them because they had arrested my friends and people in my neighbourhood. They were beaten for no crime" (Case 30).

Another boy offered more or less the same view but offered specific information.

He shared that he knew bad things about the police because he had seen the police beating people on the roads. He further stated that the police always set up roadblocks. He stated, 'Whenever I walked by that road I felt a shiver in my body because of those policemen, no one told me the police are bad. I saw that most of the time they were doing bad things to people. They took peoples' money from their pockets; I saw them doing it at police pickets' (Case 7).

A young boy was arrested for keeping an illegal pistol and a stolen mobile. He confessed that he was involved in mobile snatching and that he had had a pistol with him at the time. Before he joined the company of bad boys, he had already known about the police as a corrupt gang of people who did not respect anyone. According to him, "People joined the police force to make money and lived a powerful life in their vicinities." He added, "In my neighbourhood most of the boys wanted to join the police force. I also wanted to join it because we wanted to make money and live a good life. I see some policemen in our neighbourhood leading a very good life and people are scared of them" (Case 3). This boy indicated that the police were perceived as corrupt, and he had personally witnessed some of their corrupt acts while observing them in his neighbourhood.

A 13-year-old boy claimed that he had been charged for theft and had spent four days in the police lock-up. He said, 'The police are not good. I was always afraid of them. I did not consider that the police could protect us but they would take away everything from us." He added, "Before my arrest, many times I personally saw them looting people on the road. One day on our main road, which was a one-minute walking distance, the police tried to stop two young boys on a motorbike. However, they did not stop, so the police started firing at them causing them to be badly injured. These boys had no pistol or anything illegal with them" (Case 9).

Another boy shared his observation, "I was very young. I did not know who the police were. I saw people protesting on the main road for no water supply to their area and the police were beating them. I asked my father as I was curious about who those people were who were beating the protesters. My father told me the men were policemen' (Case 13). A 17-year-old boy shared that he and his friends were snatching mobile phones and that they were carrying pistols. They were arrested right after snatching a mobile phone. The police kept them only for two days in police lock-up at the Police Station in the Defence area, and they were tortured by only one policeman. He shared that he knew as a fact that 'police' meant power and money. Therefore, he wanted to join the police because it is easy to become rich by joining the police force. He shared, "I have seen a police constable in my neighbourhood. He was extremely poor but within three years he bought his own car and made a house. I always saw him with criminal people who used to sell narcotics" (Case 14).

Slightly different observations were shared by a 15-year-old boy who had spent

seven days in police lock-up although he had committed no crime. According to him, he already had knowledge of the police's bad behaviour towards people, mainly young people, and he had seen some of their negative activities being committed in his aunt's neighbourhood. He said, "Once I was visiting my aunt's house, I noticed noise on the ground floor. I went downstairs and noticed that a policeman had caught two young boys, and he was slapping and dragging them. These boys were in their college uniforms, they had just returned from the college. I heard the police were saying that they had stolen a motorbike' (Case 16). Another boy stated that at the time of his arrest, he was scared that he would also be treated in the same way like a boy in his neighbourhood, of whom he said, "He was beaten so badly that he was admitted in hospital for many days. The police did the same to me. I was beaten and threatened to be killed in an encounter, but I was not hospitalised" (Case 28).

Other Sources in Shaping Perception of the Police

Nine participants also disclosed different mixed sources of information about the negative image of the police, mentioning multiple media sources that included private news channels (Geo and Express), dramas (they did not mention which dramas in particular), newspapers (mainly Urdu) and Indian films. Five boys mentioned family members and relatives as some of the sources of information and stories of the negative activities of police, and eight boys

said that they had heard negative stories about the police from their neighbours and friends, respectively.

Everyone knows that the Police are Bad

Although it was the first time the interviewees had personal experience of police violence and abuse as victims, they declared that even before their arrest they very much knew about the negative image of the police. One of the boys shared that he already knew the police were a corrupt gang of people (Case 3). Another boy shared that before his arrest he knew that the police were dangerous (Case 10). Yet another claimed that "Everyone in the city [Karachi] knows about the negative role of police... if they become good, all bad people will be good" (Case 21). These statements implied that all who were arrested and then interviewed would be likely to say that the police were bad. Another boy said that he already knew before his arrest that the police were "Bad people and I was caught by bad people, and everyone knows that police are bad because they have power to arrest anyone, put him in lock-up, and send him to jail" (Case 23). Other boys had similar negative views about the police.

These incidents clearly indicated that the police's image in Karachi City was not good. The police were known in negative terms such as, "They are corrupt," "Servants of rich people," "They are criminals," "They do not respect anyone," "Police means problem started," "The police is the name of fear because they only beat and always threaten to kill."

Violence Reinforces Negative Image

An additional finding of the research was that rampant violence had reinforced the negative image of the police. Knowledge acquired through different sources about the bad or negative image of the police accompanied by personal observation of police behaviour while in custody had reinforced the negative image of the police held by these 34 boys. Out of 34, 12 claimed that they were innocent; theoretically, a person whether innocent or not, if caught and tortured by the police, is justified in his view of the police being negative (Romain & Hassell, 2014; Flexon et al., 2009). The courts had yet to decide if these boys were innocent; however, all of them (except for four) claimed that they were physically tortured by the police and that they had seen many other poor people being tortured during their many days in custody at the police station. For obvious reasons, their negative view of the police would certainly grow stronger and be reaffirmed in their minds.

When they were asked to give their opinion about the police after they had been treated badly, all of them stated that it had become more negative. One of the boys said, "I will believe everyone in this city but I will never believe in the goodness of the police" (Case 17). Some of the boys related their stories with those of other people in Karachi City, such as, "You ask everyone on the street about the police, they will say the police are bad. I have experienced how badly the police treat poor people" (Case 1). A similar view was expressed by another boy, who stated, "Everyone in the city [Karachi] knows about the negative role of the police".

Treatment of the Poor

All of young interviewees belonged to the lower rungs of the socioeconomic class (Table 1) as their families were lowly paid. While mentioning their sufferings at the hands of the police due to class, one boy said, "I have experienced how bad the police treat poor people" (Case 1). Another interviewee suggested that poor boys are beaten for money, stating, "I saw many poor boys and men being beaten by them for money" (Case 2). Another boy said, "The police never cared about poor people" (Case 6).

Some boys directly mentioned the value of money and power, and that there was a lesser value for those who did not have money. One boy informed, "They catch, beat, insult and disrespect only poor people" (Case 7). Another boy said that "The police badly treat all poor people at the police station but do nothing to rich people because rich people gave them money and have power as they belonged to political parties" (Case 8). Another boy added that "The police do not arrest strong people or those who have political support; they would arrest only weak and helpless people" (Case 11). There were also other negative views in the same context. One juvenile said that "They do not listen to poor people. They just beat. If you give them money, they would not touch you" (Case 15). "They are servants of rich people" (Case 17). "They only arrest

innocent and poor people" (Case 18). "They are enemies of poor people" (case 20 and 22). "They block roads and arrest poor people" (Case 25). "They create problems for poor people" (Case 30). "For them, the poor are not humans" (Case 33).

The study found that in the view of the boys, there was a common practice of the criminalisation of the poor by the police. In many of the boys' views (with reference to Cases 2, 5, 6, 7, 8, 10, 14, 15, 18, 20, 22, 25, 30 and 33), the police caught poor people, while some of the boys (with reference to Cases, 8, 14, 17 and 24) said that the police did not catch rich people. The source of income of these boys' families suggested that the boys belonged to extremely poor families (Table 1), which to some extent, justified their view that criminalisation of poor boys is a common practice in the city.

DISCUSSION

The views of all 34 boys offered an immense account of the deplorable state of human rights of children (below 18 years of age) in police stations in Karachi. It also shows that implication in false cases and criminalisation of poor are interlinked and also deeply rooted in the criminal justice system of Pakistan, which is believed to serve the interests of people who are economically and politically strong. These factors need to be discussed from the perspective of Pakistani structural criminal violence. This would not be necessary if the 22 boys, out of the total of 34, were lying or claiming to be innocent (see more

details under heading 'Falsely Implicated'). The 22 boys were, according to the facts as stated by them, innocent, and even if they were not, they deserved better treatment as outlined in the Juvenile Justice System Ordinance (JJSO) and the United Nations Conventions on the Rights of the Child. Even the remaining 12 boys who confessed that they had committed offences ought not to have been treated inhumanely but according to provisions enshrined in the law. Since they had already been through the harsh criminal justice system of Pakistan, there was no reason to disbelieve them. The point is, however, why were these innocent boys falsely implicated? What happened to the boys is not merely acts of violence, torture and abuse at the hands of the police against 34 boys but the exploitation and victimisation of thousands of children whom they represented, in addition to the poor and the working class (Yale Law School, 2014; Khoso & Yew, 2015).

In South Asia, Pakistan is one of the countries where torture and abuse of children in police lock-ups, and also the use of harsh, abusive or obscene language is reported to be common (UNICEF, 2006). The United Nations Committee on the Rights of the Child in its Concluding Observations revealed deep concerns about reports of torture and ill-treatment of children by police officers in detention facilities in Pakistan (United Nations, 2009). From 2011 to 2013, 224 police officials were reported by the media to be involved in child sexual abuse cases, 10 of which were reported to have occurred in policemen's personal

residential quarters and 18 in police stations (Sahil, 2011, 2012, & 2013).

Why would the Pakistani police torture the detained? It was found that torture is considered an acceptable practice in Pakistani culture. "Pakistan is a country with high incidence of intra-family violence" (Mansoor, 2010). The state allows for the torturing of citizens through its criminal justice system, which in turn justifies torture within families. Consequently, Pakistani society has become more violent and intolerant, and this seems to be allowing a foothold for a rise in cases of honour killing (South Asians for Human Rights, 2011). Pakistani society is infested with extremism, intolerance and violent behaviour. As a routine matter, children across the country are battered, beaten, hit, slapped and spanked by their guardians and teachers. In 2011, a media channel showed the police officials in one of the cities in Pakistan flogging a 16-year-old boy in public on charges of stealing a mobile phone. A senior police officer commented that this kind of open punishment creates "fear of the police among the public, and believe me, 80% of the crime is controlled in this way" (Khoso, 2011).

Many police officials of low rank use the criminalisation of the poor and helpless as a show of good performance to impress their bosses. Since the police remain unable to access, identify and catch actual offenders, they implicate disadvantaged children in crimes committed by others (Khoso & Yew, 2015) to avoid pressure from their superiors. In addition, in the rural and urban areas of Pakistan, the police work to serve the interests of the feudal and capitalist elite. The elite have a strong influence on the police and what goes on in police stations, commonly known as *thana*, meaning police station. *Thana* culture in Pakistan has come to refer to how the poor seem to be implicated by the police in false cases (Ali, 2015).

Thana culture has given authority and power to the police to illegally detain the innocent and the poor without having to give any reasons or on false grounds. *Thana* culture (or culture of torture or violence) is essentially a product of colonial law, stemming from the Police Act of 1861. After independence in 1947 from the British colonisers, Pakistan adopted and continued the Police Act 1861, allowing the harsh treatment of criminals that was framed and regulated under colonial law to continue and not be superseded by child protection law such as the Juvenile Justice System Ordinance (JJSO). In the Police Act, the police served as the enforcement arm of state bureaucracy, controlling people through 'repression and fear'. Perito and Parvez (2014) believed that "*Thana* culture *primarily* serves the interests of the political elite, the wealthy, and those who demand special treatment." They also added that the majority of Pakistanis "fear the police and seek their assistance as a last resort. Widespread corruption, high-handedness and abusive behaviour have soared in police-community relations" (Perito & Parvez, 2014). Abbas (2011) believed that in the eyes of the public, Pakistan's police are

corrupt, incompetent and brutal; therefore, "justice is elusive, insecurity is rampant, and ordinary citizens are the victims of this system. Even internal police assessments acknowledge the police force's lack of credibility in the public eye".

It would appear that, based on the above discussion, the views and perception of these 34 boys affirm the pre-established violent and negative image of the police in Karachi, perhaps even in the whole of Pakistan. All 34 boys categorically stated that they already knew that the police were bad, and after their interaction with the police, their negative views of the police were reinforced. "The police are bad," was a common evaluation of the police among the interviewees.

The police played a major role in constructing the negative perception of themselves that is now generally portrayed by the media and society (family members, relatives, friends, neighbours); this seemed to be confirmed by the interviewees, who had been the unfortunate victims of police brutality. The interviewees' personal encounter with the police, including their being falsely implicated in criminal acts and the physical and mental torture they were subjected to reinforced their negative perception/image of the police. Therefore, the point is not that juveniles or children have a negative perception of the police after a bad personal encounter with the police (Romain & Hassell, 2014; Stewart, Morris, & Weir, 2014; Brick et al., 2009; Dowler & Zawilski, 2007) but that society as a whole contributes to the construction of such an

image of an institution that is meant to be responsible and which was established to protect citizens, both adults and children. The interviewees had heard, watched, seen and observed instances that portrayed the police in a negative light, but their views and perception became stronger, or were reinforced, after their personal experience of being tortured, degraded and treated inhumanely (Norman, 2009).

The interviewees' perception of the police was formed along extremely negative terms by the media and their parents, friends and neighbours, but their personal observation of the police was a strong influencing factor in shaping their views and perception of the police. The statements they made in the interviews suggested that their negative views about the police have become firmly imprinted on their minds forever.

The police were themselves responsible for the construction of this negative image in the perception of the interviewees. In terms of observation, one route of construction of such a negative perception of the police was the police's own behaviour of indulging in acts such as blocking roads, taking money and taking bribes, all of which were mentioned by the juveniles in their personal observation. At the same time, the media and socialisation also contributed to the formation of this negative perception. However, it is not clear whether the media or socialisation reaffirmed the juveniles' personal observation about the police's negative activities. This research was also not able to discover which factors were the

first to influence the juveniles' perception of the police i.e. whether their personal observation first influenced their perception of the police or information shared by family members, friends, relatives and the media as part of their socialisation was the first. This area requires further investigation. However, as far as the police's vicarious behaviour is concerned, this study revealed that the negative treatment of the juveniles in custody at police stations strengthened their negative perception of the police.

CONCLUSION

This study found several strong as well as weak factors that influenced juveniles' perception of the police. Parents, relatives, friends and the media were somehow meagre factors; personal observation was the most important factor in socialising juveniles' perception of the police. Besides low socioeconomic status, criminalisation of the poor was also a leading factor. The strongest factor was violence committed by the police; police violence reinforced the negative perception of the police.

Though the scale of this study was small, the research revealed that negative perception of the police among juveniles was formed from input received from many sources. Therefore, it appears that juveniles' perception of police should be contextual and related to specific environments and the relationship between the two variables (such as the police and poor juveniles or the police and rich juveniles).

This study urges deeper investigation into the way children and juveniles think and perceive the police, who are gatekeepers of the criminal justice system in developing countries like Pakistan. The findings of this study will enlighten policy-makers and administrators on how the criminal justice system can protect the human rights of children in police custody. In order to protect children from violence and abuse in the criminal justice system, merely passing laws is insufficient, and rigorous institutional efforts are required to change the attitude of policemen towards children.

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The Resistance of Local Wisdom Towards Radicalism: The Study of the Tarekat Community of West Sumatra, Indonesia

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ABSTRACT

In West Sumatra, radicalism does not develop and even tends to decease because of the self-defense system of the local society, in the form of the religious and socio-cultural system that arises from the doctrine, values and teachings of Islam practised by the Tarekat community. The study aims to understand the conceptual world of the Tarekat community faith towards radicalism and to explain the struggle of radical idealism in the midst of the dynamics of the religious Tarekat culture in West Sumatra. This research uses the descriptive-phenomenological approach. Focus group discussion was first conducted with the teachers (*mursyid*) and members of the Tarekat congregation followed by in-depth interviews with the teachers and members of the congregation. Observation was made to examine the socio-cultural conditions of the Tarekat community surrounding their activities in relation to their religious teachings and ideals. This study found that firstly, the fusion of Tarekat teachings with the Minangkabau culture was not conducive to the rise of radical idealism in West Sumatra; secondly, the resilience of Tarekat religious culture and the local wisdom of the Minangkabau prevented radicalism from taking root in the Tarekat community, thus reducing conflict, and; thirdly, the opposition of the Tarekat to radicalism seen in its practice of *dakwah* culture, has shaped its lifestyle and response to the world.

Keywords: Resistance, local wisdom, Tarekat community, radicalism

INTRODUCTION

The escalation of violence due to radicalism and its growing intensity has made radicalism a hot topic of discussion locally, nationally and internationally. Whether carried out by individuals or groups of society, acts

of violence resulting from radical ideas derived from religious teachings is causing consternation around the world. It is not surprising, then, that suspicions arise that religious educational institutions, especially traditional ones, such as *pesantren* (Islamic boarding school) in Java, the *surau*[1] or *meunasah* in Minangkabau, are suspected to be cells for the development of radical behaviour. For Muslims, this generalisation is a stigma that impedes efforts to deal with social unrest and social problems that should instead be addressed carefully and wisely. In the context of Minangkabau culture, the *surau* religious education institution, socio-historically, is the birthplace and development of many charismatic Muslim scholars who have been able to create a calm, peaceful and dynamic environment by emphasizing the importance of integration or social cohesion.

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[1]*Surau* is the oldest educational institution in Minangkabau; even before Islam entered Minangkabau, surau already existed. With the coming of Islam, *surau* became Islamised but retained its name. The *surau* in Minangkabau culture is a great tradition of the Indonesian religious institution. *Surau* is a religious institution of society that acts as a prominent Islamic teaching centre and the starting point of Islamisation in Minangkabau. As a Tarekat centre, the *surau* is also e a Minangkabau fortress against the negative influence of modernisation. *Surau* is not just a place to study religion, learn to read al-Qur`an or learn *adab*; it is also a place the centre of scholarship in Muslim communities; here, Muslims study their holy book and learn to debate on matters of religion and science (Azwar, 2015, pp. 293–308).

The emergence of Tarekat groups as a religious institution in Islamic society is a manifestation of the dynamism of Islamic teaching. The presence of the Tarekat group in the history of Islamic civilisation, according to Azra (2007), "contributes to the process of urban society formation, and plays an important role in spreading the idea of Islamic renewal to various Islamic worlds, including to the archipelago" (p. 145). The movement became known as neo-Sufism, a movement that attempted to reconcile Sufi and the Sharia teaching. Certain rituals in religious practice are typical of Tarekat groups, and this identity is an interesting phenomenon in the dynamics of Islamic societies.

In the Indonesian archipelago, Tarekat not only plays a role in the initial Islamisation process; it also contributes to various social, cultural, political and economic processes within urban society. The strength of the group's network is based on the collective piety and obedience to the teachers (*mursyid*), which allows them to develop a stable institutional network and to play a role in social reform and change, both structurally and culturally (Azra, 2007, p. 147).

Tarekat culture in West Sumatra is built on two main pillars, namely Islam and *adat* (custom) Minangkabau. These two pillars shape the attitude and behaviour of the people. The important implications of this compounding can be seen in the peaceful coexistence of humanist-inclusive, well-mannered and civilised people with socialist ideas and activities (Azwar, 2015, p. 153).

Therefore, it is difficult for radicalism to develop in Minangkabau society because it is blocked by cultural and religious mechanisms. It would be interesting to study how Tarekat teaching, which is the basis of the local wisdom of West Sumatera, blocks radicalism. How does Tarekat teaching fortify the people of West Sumatra from developing radical understanding?

LITERATURE REVIEW

Religious Understanding and Radicalism

Radicalism is the expression of extreme beliefs that are often expressed through aggressive and violent behaviour and provocative speech. As a movement, it seeks to overthrow an existing order whose beliefs are considered a watered down version of what they should be. Radicalist groups engage in and encourage extreme and violent acts to extablish their own beliefs, which they proclaim are the true, correct and accurate version. Radicalist religious groups stretch religious teachings, giving them an emotional stance that leads to violence and anarchism. Typically, radicalism is the act of violent change by manipulating religious doctrine and using religious symbols. The word 'radical' is often used to indicate total rejection of all conditions.

The various complexities of life are a powerful impetus for the emergence of radical movements. Modern societies have given rise to an impersonal *gesellschaft*, what Riesman (1961) called a "lonely crowd", resulting from a deep sense of alienation in the modern psyche. Modern society is characterised by the reversal of values, and this is a direct threat upon community, integration and togetherness (Sztompka, 2007, p. 330).

In the context of religious movements, radicalism, anarchism or violence has tended to increase or at least emerge and then disappear in recent years. The rise of radicalism and radical movements is rooted in the fact that there are growing interpretations, understanding, streams, denominations and even sects within (intra) one particular religion. In Muslim societies, religious radicalism is derived largely from literal, piecemeal and *ad hoc* religious understanding of certain verses of the Qur'an. Such understanding barely leaves room for accommodation and compromise with moderate Muslim groups, and therefore it threatens the mainstream of the *ummah* or society.

Religious radicalism in Islam can also originate from false readings of Islamic history combined with excessive idealisation of a particular period of Islam. This is seen in the views and movements of the *Salafi*, especially in the very radical beliefs of *Wahabiyyah*, which appeared in the Arabian peninsula in the late 18th century and continues to develop today. The main theme of this Salafi group is the purification of Islam, and the focus is on cleansing Islam of beliefs and practices that the group see as *bid'ah* or heresy. Such cleansing is often done through violent means.

Religious radicalism can also gain additional impetus from the political, social and economic deprivation that may persist

in society. At the same time, disorientation, socio-cultural dislocation and the excesses of globalisation, among other social pressures, are additional factors important to the emergence of radical groups. These radical groups often take the form of a cult that is exclusive, closed and centred on someone who is viewed as charismatic. Groups with certain eschatological dogmas even view the world as nearing its end and the apocalypse, and proclaim that it is time to repent through their leaders and group. Such doctrines, with their particular eschatological slant, then draw reactions from mainstream religions, and this can lead to social conflict.

In the context of radicalism in the name of Islam in Indonesia, according to Azra (2011), the root of the problem begins with a fragmentary and *ad hoc* understanding of the verses of the Qur'an that barely provides accommodation space and compromise with other moderate mainstream Muslim groups. In this context, a narrow understanding of religion tends to be rigid and potentially false. Moreover, what exactly this understanding is is not openly discussed. Religious sentiment such as religious solidarity based on perceived oppression or emotional factors are played up as causes for radicalism. In essence, radicalism is a theological problem, as it is a religious movement that tries to completely overhaul an existing social order through violence.

Juergensmeyer in his book *Terror in the Mind of God* quoted Pranowo (2011), who asserted that "the factor of understanding of religion that is not right also resulted in the emergence of a radical attitude. In his analysis, all existing religions, if they were to become exclusive and close the door to dialogue, will lead to justification of radical or terror acts. The growing tendency is to take verses to justify the group's ideology, such as *mati syahid* or martyrdom" (pp. 27–34). The same idea was expressed by Alwi Shihab (2003) in his book *Islam Inclusive*; he stated, "In fact the narrowing of the space of interpretation of religion that is bestowed upon human kinds will actually inhibit diversity in the direction of perfection. Religion is basically giving sufficient space for adherents to express Islam according to the social context surrounding it" (p. 12).

In its history and development, Islam in Indonesia was influenced by many experiences. Indonesian Islam is also inseparable from the interests of various parties, both local and transnational. In this context, according to eminent historian, Ricklefs (2006), cultural and religious transitions in Indonesia contributed to the present religious dynamics in Indonesia.

On the other hand, Azra (1999) saw radicalism in the name of religion or as a purely social phenomenon, as a deviant movement. In recent years, radicalism, anarchism or religious violence exhibited by radical Muslim groups has been increasing, not only towards other religions, such as Christianity, but also within the religion, towards moderate Muslim groups.

Like idealism, Islamic radicalism cannot be separated from fundamentalism or revivalism because both are rooted in the same spiritual movement. The flow of

Islamic radicalism was begun by radical Islamic groups both local and transnational. Bellah (2009) stated that Islamic teaching was too modern for its time so it was difficult to understand by the world at that time, even by Muslims themselves after the Prophet Muhammad SAW. The tendency towards radicalism and religious militancy can also be explained as a reaction against the disorientation of values brought about by modernisation. Modernisation disrupted life and brought about drastic change, not only in advanced industrial countries, but also in developing countries.

Religious Beliefs of the Tarekat Community

A major religion, such as Islam, Christianity, Hinduism or Buddhism, will manifest itself in the ideology and behaviour of its followers in different ways throughout history and from place to place. An appropriate environment and understanding of religious doctrine will emerge from time to time as a special movement of religious behaviour. One variation of religious life in Islam was the emergence of the Tarekat movement pioneered by the Sufis.

Religious experience can be classified into two major types, esoteric and exoteric. Esoteric experience is concerned with the aspect of the *bathiniyah* (essence), while exoteric experience emphasises outward or formal religious concerns (*shari'at*). The Tarekat congregation emphasises the depth of inner experience while accepting diversity. The word 'Tarekat' is derived from the Arabic *tariiqah* (plural, *tharaaiq*) which

in language means 'path, state and flow of certain lines' (Luis Maklub, 1973). Ahmad Warson (1984) added that Tarekat also means *kaedah* or *usluub* ('system'), what is noble in people (*syariif al-qaum*). The same definition was proposed by Elias Authan and Edwar Elias, that Tarekat is a way, method and system of belief (Said 2007; Azwar, 2015, p. 178; Amar, 1980, p. 11).

Aboebakar Atjeh (1993) argued that "the Tarekat is the way, the guidance in performing a worship in accordance with the teachings determined and exemplified by the Prophet, and done by friends and *tabi'in*, from generation to generation, to the teacher, continuously like a chain sequence" (p. 67). The congregation attempts to approach God based on what the Qur'an and Sunnah teach. Thus, the Tarekat relies on the teachings of Islam. Sayyed Husein Nasr said of the Tarekat congregation that it "is the heart of the teachings of Islam, though hidden from view, it becomes the inner source of life and the center that governs all Islamic religious activities" (Azwar, 2015, p. 179). The use of the term Tarekat in the sense of Sufism is the result of the development of the semantic meaning of the word itself, as is the case with the word *Shari'at* used for Islamic law (Madjid, 1995, p. 257).

The Tarekat differentiate between the terms *Shari'ah, tariqat, haqiqat* and *ma'rifat*. According to them, *Shari'ah* improves the deeds of the body or physical deeds, *thariqat* improves the deeds of the heart and soul, *haqiqat* is the practice of the mystical secrets and *ma'rifat* is the ultimate goal, which is to know the nature of Allah

SWT (the Most Glorified, the Most High) in substance, nature and deed (Atjeh, 1993, p. 395–404). *Ma'rifat* is the appreciation of the absolute oneness of God s.w.t. in the form of the universe and in His own being. This understanding brings together the meaning of *tawakkal* and *tawhid*, referring to total surrender of the individual to Allah SWT, releasing him or her from absolute dependence on anything other than Allah SWT. People who have reached the stage of *ma'rifat* are called *wali*, and are believed to have supernatural abilities called *karamah*.

In the Sufi tradition, there is a postulate that says "*man 'arafa nafsahu faqad' arafa rabbahu*," meaning "one who knows himself or herself can easily know his or her God". Thus, self-knowledge is the route to knowing God. Congeniality provides for a deeper meaning in approaching the teachings of Islam. The congregation emphasises sincerity, piety, patience and submission to Allah SWT. Some teachers such as those who teach on *fiqh, kalam* and *fuqahak* do not focus on these aspects and often regard the *Tarekat* as a misleading practice.

Azwar (2015) explained that the Tarekat congregation focused on four social functions, namely (1) providing emotional support for the failures and uncertainties of life; (2) offering transcendental connection through ritual worship ceremonies that can provide an emotional basis as a frame of reference for attitude and action, including in an atmosphere of conflict, disagreement and disagreements that promote stability, general security and the social system; (3)

establishing the value of 'congregation', which prioritises the common interest above the interests of individuals, serving to strengthen the legitimacy of the validity of values and social systems; and (4) teaching simplicity, nature of life and the value of optimism, while at the same time not encouraging consumptive and capitalistic behaviour such as explained in Weber's *Protestant Ethics*, but rather, teaching on the importance of the effort to change based on the value of inner tranquility, as contained in the doctrine of *barakah* (p. 261–262).

The four functions of the Tarekat mentioned above can be observed from the thinking and behaviour of the *jama'ah* (congregation). Social relationships are based on the senses, and not just on the intellect. That is, people are taught to balance between their senses and thinking in all actions and deeds. This is the main purpose of the teaching and practice of Tarekat, namely, to train people in experiencing and applying Godliness, brotherhood and friendship, among other things. In these circumstances, the *Tarekat* forms a humanist perspective for the individual, guiding them in releasing their *fitrah* (natural tendency). The birth of mutual respect and good manners rather than an individualistic, materialistic attitude is the aim of Tarekat culture, and this is what characterises Tarekat groups.

In West Sumatra, especially among the Minangkabau, the meeting between sense and thought is known as *raso jo pareso*, and is a frame of reference in social relationships. The Minangkabau

hold firm to *adat* (custom) and Islam. The blend of *adat* and Islam creates a unique indigenous lifestyle that keeps attracting the attention of social scientists and people in general. The Minangkabau are known for their matrilineal system of hierarchy and inheritance and the unique balance of power between men and women. Today, these customs have become blended in with the traditions and teachings of Islam, making the Minangkabau a dynamic society. The dynamic blend of *adat* and Islam has given rise to the new wisdom practised by the Minangkabau. Their philosophy of *alam takambang jadi guru* (natural law as the teacher of life) is their interpretation of the teachings of Islam, namely *sunnatullah*, as expressed through their unique culture.

Radicalism and Its Movement in West Sumatera

Radicalism in West Sumatra originated from a purification movement of teachings and religious practices (Islam) conducted by young men who had just returned from studying in Saudi Arabia and Egypt. These young men, referred to as 'The Youth Group', were influenced by the *Wahabi* movement started by Muhammad bin Abdul Wahab. However, Wahabiism was inconsistent with the teachings of Islam as practised by the Minangkabau. The group that chose to defend the local practice of Islam (Islam-Minangkabau) became known as the 'Old Group'.

In today's context, radicalism and its different movements, especially the religious ones, exist as organised movements in West Sumatra. Inspired by the older religious movement, they also remain in contact with radical religious groups. Contact with radical religious groups is made possible because of religious education. Increasing opportunities for locals to pursue religious education in the Middle East has led also to exposure to other religious movements and their ideas, which are the brought back to the local community.

West Sumatra, since the advent of the Paderi (Padre) movement, has become the most popular area for exploring Salafi-style Islamic teaching (Bolland, 1985, p. 123; Wahid, 2009, p. 29) through the *hajj* performed in Saudi Arabia; the *hajj* journey exposes locals to the array of religious ideas propagated in the Middle East. After Indonesia's independence in the 20th century, the organisation was mobilised by M. Natsir. Many West Sumatrans were sent to Suadi Arabia and the Middle East to learn about Islam. Those who returned continue to teach *salafi* ideology in West Sumatra in an effort to spread transnational ideology (Noer, 1987, p. 59).

Radical Islam in West Sumatra appears to have emerged after the 'New Order' government collapsed. Transnational models, such as Hizb ut-Tahrir and *Salafi*, are motivated by *Shari'ah* (*nizam al-Islam*) as practised by the Islamic caliphate. The Islamic Defenders Front (FPI) established *amar ma'ruf* and *nahyi munkar* to defend the teachings of Islam, while local Islamic radical groups such as 'Paga Nagari' and the Committee of Islamic Sharia Enforcement (KPSI) seek to enforce Islamic *Shari'ah*

through the Regional Regulation (Perda). Although there are differences between radical organisations and other Islamic organisations, both share the same goal of enforcing Islamic law.

The Islamic organisation, KPSI, seeks to reform the practice of Islam through the Paderi movement. The Paderi movement in West Sumatra was developed in the past. KPSI is a local Islamic organisation that was born and nurtured in West Sumatra, as documented in the groups records dated 2002. It was set up to respond to local social-religious and political phenomena. The effort of Islamic organisations like this was to win sympathy from the community in order to take over leadership of the community (Roy, 2005, p. 94; Abaza, 1993, p. 17). KPSI is one of the local organisations that is committed to enforcing Islamic *Shari'ah*. Their struggle is in the spirit of the Paderi movement and applies the religious principles of the Paderi movement.

KPSI, established in 2002, stems from the idea of a number of young people concerned about the development of West Sumatera society and the behaviour of Muslims who seemed to be drifting farther away from *sha'riah*. Society was beginning to show rampant moral misbehaviour; gambling and dunkenness were common, whereas originally, the people of West Sumatra had adhered to the philosophy of *adat basandi syarak, syarak basandi Kitabullah*. While West Sumatra had once been known for its religious flavour, it seemed to have left that tradition far behind, and groups such as KPSI were determined to return the region to its original stance.

Today, Islamic radicalism in West Sumatra does not seem to have reached the alarming level of radicalism in other regions, such as Jakarta, Solo, Poso and West Java. More specifically, it is said that Islamic radicalism is far different from what the Paderi group had ever intended, and participation in radicalism in West Sumatra remains weak.

RESEARCH METHOD

This research used the descriptive-phenomenological approach to study the Tarekat group and its conduciveness for the growth and development of radicalism in Minangkabau society in West Sumatera. According to Nazir (1988), the "Descriptive research method is a study to examine the problems in society, as well as various phenomena that occur in society in certain situations, including about relationships, activities, attitudes, views and processes The ongoing effect of a phenomenon" (pp. 63–64). Phenomenology, as described by Alfred Schutz, is "the attempt to interpret and explain the actions and thoughts of society by describing the reality that appears" real "in the eyes of every person" (Holstein & Gubrium, 2009, p. 336). In this study, research was conducted to interpret and explain the social activities of the Tarekat of West Sumatra. The various phenomena of Tarekat life are summarised

into constructs and limited categories to enable understanding and interpretation.

This research used the grounded research approach, a fact-based research approach relying on comparative analysis of empirical generalisations in establishing concepts and testing and developing theories through data collection and analysis to further explain how a phenomenon prevails. Grounded research is based on facts and uses comparative analysis. For grounded research, data are the source of theories; theory is grounded when it is based on data. The hallmark of grounded research is to use data as the source of theory, not logical thinking. Data are also the primary source for constructing hypotheses in grounded research (Nazir, 1988, p. 89).

This research tried to explain the thinking behind the social activities of the Tarekat in West Sumatra, and their effect on the emergence of radicalism in Minangkabau society in West Sumatra based on empirical data rather than on theories based on deductive logic because Tarekat or *tasawuf* as one embodiment of Islamic teachings contains symbols and ways of behaving that can only be understood by those within the community. The descriptive-phenomenological method of observing and understanding the social activities of the Tarekat can help to explain its depth of meaning as a subjective reality that is understood and perceived by its followers.

To understand and comprehend the conceptual world of the Tarekat in West Sumatra, the researcher firstly collected, studied and understood the basic teachings of the Tarekat through the existing literature including manuscripts held by teachers and congregations (*jama'ah*). This was to comprehend in general the basic teachings of the Tarekat that had been developed in West Sumatra. Secondly, the researchers conducted a focus group discussion (*muzakarah*) with teachers and followers (*jama'ah*) of Tarekat related to their knowledge and understanding of the teachings. Thirdly, the researcher deepened the in-depth interview on the influence of the Tarekat community's understanding of their activities and social behaviour, including their response to the development of radical movements. In-depth interviews on the character of their teachers (*ulama/mursyid*) were performed in an effort to understand the various social activities and Tarekat relationships within the community.

The selection of informants was based on the reliability of the informants as the source of information using the snow-ball technique by determining the key informants.

Table 1
Key informants

Name	Tarekat Group	Research Area
Mahyuddin Tk. Sutan	Syattariyah	Kota Padang
Zubair Tk. Kuniang	Syattariyah	Kota Pariaman
Tuanku Syofyan	Syattariyah	KabupatenPadangPariaman
Awis Karni Husein	Naqsyabandiyah	Kabupaten Agam
Azwar Dt. Bagindo	Naqsyabandiayah	Kota Bukittinggi
M. Nur	Naqsyabandiyah	Kota Payakumbuh
Zedriwarman	Naqsyabndiyah	Kabupaten 50 Kota
Effendi Sanusi	Naqsyabandiyah	Kabupaten Pasaman
Tuan Khalifah Abu Bakar	Naqsyabandiyah	Bonjol, Kabupaten Pasaman

The information obtained from the key informants was used as the basis for determining which other informants could provide the necessary further information. The selection of key informants based on depth of knowledge and knowledge of the various information required, was also based on the consideration of their ability to provide advice regarding other informants needed for research, thus deepening the process of collecting information through informants until saturation, which was decided as information obtained that was no longer new.

This study also used observation of circumstances, situations, processes or behaviour of the Tarekat and their social activities and their effects on people's lives. The technique of observation used was participant observation, that is observation of selected social activities of the Tarekat. The observations were made to take note of the socio-cultural conditions of the community, taking into account the various socio-cultural realities of the people related to the religious teachings and understanding of the

Tarekat as a sub-culture of Minangkabau culture.

To obtain empirical data on the activities of the Tarekat, the researcher observed two areas: the ritual process observed in the *surau* of the Tarekat and the social activities observed in the everyday life of the Tarekat. This entailed conducting participant observation for one year. However, observation of rituals was allowed for only certain rituals.

Data analysis was done in several stages: First, data were obtained through observation and interviews were complemented, compared and verified by cross referring with information from other informants and by consulting books, documents and related research results. The data were then classified into categories. Second, the categories were sought for their main features to know their equation and merging. Third, the categories connections between the categories were sought in order to formulate propositions. Fourth, the propositions were linked to one another so as to build a final understanding of

the congregation (*jama'ah*), and this was then analysed using related theories that ultimately led to a conclusion.

RESULTS AND DISCUSSION

Religious Culture of the Tarekat Community as Local Wisdom for the People of West Sumatra

The presence of Tarekat groups in West Sumatra is not just a *da'wah* activity for the spread of Islam. Religious activities conducted by Tarekat groups also affect the socio-cultural systems of society. The Tarekat group are a functional social movement, as their presence is not a protest against the existing social system. The presence of Tarekat groups strengthens the existing social system of Minangkabau culture. The teachings of the Tarekat affect the mind and soul of the Minangkabau community. This is summed up in the Minangkabau adat philosophy, known as the *adat basandi syarak, syarak basandi Kitabullah* as *syarak mangato, adat mamakai* (according to *syarak*, the customs apply). The philosophy of *adat basandi syarak, syarak basandi Kitabullah* is historically the result of the dynamic process of Tarekat teaching with *adat* teaching. This is what Durkheim called the social fact. Durkheim said that social facts were the beliefs and rules of behaviour instituted by society (Ritzer, 1996, p. 77).

In religious life, the Tarekat play a role in giving deeper meaning to the teachings of Islam. This congregation places greater emphasis on formation of the heart, devotion, patience and submission to God. The Tarekat have also succeeded in strengthening brotherly relations among community members. This factor has shaped the resilience of society against the negative influences of modernisation, Westernisation and capitalism that can undermine social structures.

The teachings of the Tarekat play a role in strengthening the mindset and intellect of the Minangkabau. The Minangkabau philosophy of learning from natural law, *raso jo pareso* (sense and thought), is compatible with Islamic teaching as practised by the Tarekat as it prioritises the senses or the soul. The rituals of the Tarekat prioritise the cleansing of the soul through *dhikr*, corresponding to Minangkabau *adat*. The application of Islamic teaching as developed by Tarekat groups through culture, makes Tarekat teaching acceptable to Minangkabau society. The meaning of the philosophy of Islamic teaching is more easily understood by the people through the approach of indigenous philosophy embedded in the minds of the people. Therefore, the Tarekat activities engaged in mainly by the Tarekat teachers of the Minangkabau create an ideal community, which is then imitated by the wider community. They do not reject the existing order of society, but offer alternative values for the whole community.

Sheikh or Tarekat teachers not only take care of issues related to religious life; they also play a role in improving the existing social system to conform to Islamic teaching. Their movement is neither in resistance to the existing system, nor is it meant to be a revolutionary movement. It is a cultural movement established through the system

and social structure of the existing society, where Tarekat teaching is transformed into the realities of life. The process is unfolded slowly, but surely, as Azwar (2015) explains: "the religious understanding of Tarekat originating from Tarekat teachings forms a distinctive value system in the social structure of West Sumatera society called Minangkabau" (p. 155). The religious faith of the Tarekat affects their philosophy of life and the intellect of the Minangkabau. This then creates 'local wisdom', which gives rise to the principles governing the life of the people, binding it with doctrine, *adat* and values that affect the mind and the sense of society more broadly to create a community typical of the Minangkabau.

Resistance of Local Wisdom to Radicalism in West Sumatra

Integration of religious beliefs with customary or *adat* values. Radicalism did not develop in West Sumatra due to the strong integration between the Islamic teaching of the Tarekat and Minangkabau customs, values and philosophy. The robust process of integration was achieved after a long time. The initial process of contact between Islam and the local community was only surface contact, as the Minangkabau who became Muslims considered Islam and their culture to be on different planes. On the one hand, the people received the basic symbols of Islam, but adherence to the *adat* system was still very strong. Then, the people began to blend Islam and custom, and the two became *aua jo tabiang, sanda manyanda kaduonyo*. This

philosophy of life illustrates the merging of Islam and *adat*, with each reinforcing one another, considering the two to be inseparable. This *adat* philosophy meant that Minangkabau *adat* was the practice of Islam, *syarak mangato, adat mamakai* (according to *syarak*, the customs apply). This custom-based philosophy manifested itself in the symbols of the identity of the Minangkabau people. One will not be called and recognised as a Minangkabau if one is not Muslim. Therefore, for the indigenous Minangkabau, Islamic teaching is tangible if it is based on *adat*.

Zubeir Tuanku Kuniang, a cleric of Syattariyah Surau Pakandangan, Padang Pariaman, said:

> "... the mixture of Islam with custom is not the same as the mixing of oil with water. Oil and water when mixed with one container will still appear to be separate. The oil will settle down and the water floats above the oil. The corresponding statement that exemplifies the blend of Islam and *adat* is like sweet tea water, they combine each other, whichever is water, which is the sugar is difficult to separate, and some even likens it like a fingernail with flesh beneath."

The strong relationship between Islam and Minangkabau culture that shapes the religious awareness of the people of West Sumatra has led to the presence of radical groups that want to make changes because their thinking is not in line with that of the local community. Based on

observation in some areas of West Sumatra, a hardline denominational movement to purify Islamic teaching does exist. Such a movement seeks to rid religious practices of elements that are considered superstitious. In fact, this has long been happening in West Sumatra. These hardline religious groups are structured and systematic in their operation. For example, in performing *da'wah* (*tabligh*), they might gain entry into a *surau* and after some time, take a role in society and religious institutions, perhaps as *imam* or *khatib nagari*[2] on the mosque and *mushalla* board. This is to give them a foothold in the community from which they can spread their aggressive ideology. However, such movements are not getting a positive response from the community; they are not growing and the number of members is not increasing. Azwar Dt. Bagindo, the head of Tarekat Naqsyabandiyyah Surau Tangah Rice Field of Bukittinggi, revealed:

> "… groups that do the *da'wah* rather loudly, offering to the people the pure teachings of Islam while making a denunciation of the traditions that exist in the community, including the secular activities we undertake. That exist in societies are against the Islamic shari'ah. For them society has to change

rapidly. For them they seem impose in their preaching. A place in the hearts of society."

Their ideology hits out at the religious traditions of the local society and their customs, which they say are incompatible with Islamic teaching, and so they are challenged by the people, especially the religious and traditional leaders. In denouncing local custom and religious practices, these radical groups are criticising the way of life of the Minangkabau, and therefore, they are rejected. For example, when these hardline groups mock the tradition of *maulud*[3], *suluk*[4], *basafa*[5], *ziarah*[6] etc., the local people feel that their customs are being insulted. Religious activities to the Tarekat are not just for the sake of religious practice; they also contain dimensions of local cultural tradition. Religious activities are not only for practice by the *jama'ah*, but also for the entire society as a whole, *alek nagari*[7].

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[3]The commemoration of the birth of Prophet Muhammad SAW on 12 Rabiul at the beginning of the *hijriyah* year is one of the religious traditions the Syattariyah Tarekat.

[4]One method of soul/self purification for the Naqsyabandiyah congregation

[5]Ritual of pilgrimage to the grave of Sheikh Burhanuddin in Ulakan Pariaman every Syafar month

[6]Tradition of visiting the grave of Tarekat teachers as a form of respect, obedience and continuation of the commitment to Tarekat teachings

[7]The term used by the people of West Sumatra for the social or religious activities that have become customary traditions

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[2]*Imam* and *Katik Nagari* are indigenous religious institutions established through the *Nagari* indigenous community consultation while *nagari* is the basic unit of settlement in Minangkabau. A Minangkabau customary territory, as well as the lowest government structure in West Sumatra that is autonomous.

Tuanku Sulaiman, a young leader in the Syattariyah Tarekat in Lubuk Alung, Padang Pariaman, said:

"... in my opinion, society in general, somewhat restless with reciting denouncements and considers the heresy of religious practices of society. Many people suspect that their ideas and movements aim to divide the community. As a young generation of Shattariyah I have never been frontal with the groups, but I am more encouraging and motivating the congregation to strengthen faith and increase worship and amaliah. I also encourage people to have noble character and good manners in social interaction in society. For me this is the meaning of custom *basandi syarak, syarak basandi kitabullah*."

The community response to hardwing *da'wah* differs slightly among the various communities in Luhak and Rantau[8] areas. In the Luhak region, customs are stronger because in this region the structure and

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[8]Minangkabau is divided into the Luhak and Rantau areas. Luhak is traditionally seen as the region of origin of the Minangkabau. It consists of three regions, namely Luhak Tanah Datar, Luhak Agam and Luhak Limapuluhkoto. These three areas, called Luhak Nan Tigo, are located in the hinterland around Mount Merapi. The region is also called Darek region. Now the third luhak is the name of each "district" in West Sumatra. While the overseas territory is an extension of the Minangkabau settlement community during its development.

function of these customs are still very influential. However, in Rantau, religious rituals are more prominent because they are more greatly emphasised. However, this variation does not result in partiality or polarisation of the community's response to hardwing movements. In Pariaman and also in Pasaman, for example, the community's response to these ideas and movements was demonstrated by inviting them to follow the religious rituals commonly practised by the Tarekat. The aim was to provide experience and understanding about the rituals so that they could see for themselves that the religious practices of the Tarekat did not deviate from Islamic teachings.

The rejection of ideology and radical movements in West Sumatra are limited to small groups that have no place in society. This is made possible by the solid integration of Islam and Minangkabau *adat* that took place gradually and naturally. In addition, the integration process was not done by violent means but in a persuasive-humanistic way. In this case the Tarekat certainly provide an important role in strengthening integration through cultural flexibility, as expressed in the parable: "*Kok kanai jilatang, the bio-bio doh ubeknyo*" ("Do not fight violence with violence, but welcome violence with friendliness). This tolerant attitude is the cutural character or local wisdom of Minangkabau society, as stated in their philosophy:

Kandua badantiang-danting
Tagang manjelo-jelo

Lunak ndak dapek di sudu
Kareh ndak makam takiak[9]

The presence of radical ideas and movements in West Sumatra is not naturally well developed because Islamic teaching and Minangkabau *adat* system are likened to two sides of a coin that cannot be separated. Both sides are the *payuang panji* (protector) as well as the soul of the people. On the one side are the Tarekat clerics and on the other is *adat/niniek mamak*[10]. If one side of the coin is attacked, the other side also feels the pain and reacts.

Flexibility of religious understanding (Wujudiyah-syuhudiyah). The Tarekat are guided by the dynamics of *wujudiyah-syuhudiyah*. *Wahdatul syuhud*[11] is the antithesis of *wahdatul wujud*[12] . *Wahdatul syuhud* emphasises the transcendent nature of God. This view also suggests that the universe and everything in it was created by God as a symbol or sign of God's power

and will as the Absolute Being. The logical consequence of this view is that God's signs can be witnessed in the creation of the universe and everything in it, including humans. Then everything that appears is a *surah* of essence (Substance of God). *Wahdatul syuhud* is the basis for the ideology or religious thought of *tasawwuf akhlaqi* or *tasawuf Sunni*.The most influential figure of this thought is Imam al-Gazhali.

Historically, congregations have adopted the two concepts according to the needs and situation of the society in which they developed. In the initial process of Islamisation the Tarekat adopted *wujudiyah* because this concept was better suited to the character of the society encountered i.e. people who retained some belief in animism and dynamism. Later, Tarekat ideology shifted to the ideology of the *syuhudiyah* because the society encountered could better understand the pure and abstract concepts of religioun. Thus, it can be said that the religious understanding of *wujudiyah* and *syuhudiyah* is essentially an open space for the interpretation and dynamics of contextual religious thought.

In terms of the development of the Tarekat in West Sumatra, *wujudiyah* was the religious starting point presented to the local community through syncretism-magic as the people were still bound then by animism and dynamism and had not been trained to comprehend God in abstract terms. Presented in this way by the Tarekat, Islam was eventually understood and accepted by the local community.

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[9]This philosophy illustrates that society is flexible but firm in its principles.

[10]*Niniek mamak* is the collective name for all the leaders of the Minangkabau. The *penghulu* or *datuak* is the traditional leader of a tribe based on maternal lineage.

[11]Everything that exists (*a'yan kharijiyah*) is not *him 'ain Allah* and not also *mazhhar*, but *syuhud*, testimony of the existence of God.

[12]Nature is the *mazhhar* (manifestation) of God. The embodiment of all this is One. *Laa ilaaha illallah* means "There is no god but Allah." The point is "*la maujuda illallah*" (nothing exists but God). A collection of *Tarekat* belief states that "the union of beings is with the Khaliq."

Subsequently, the *shuhudiyah* brought a deeper understanding of God in abstract terms. The Tarekat began to teach and develop the concept of the transcendence of God's. The local community came to see the distinction between God as creator and the universe as the created. Nevertheless, the universe and all its contents are understood as evidence of God's existence and power. The local people were also taught the attributes of God, summarised as His '20 properties'; these are the 20 attributes of God that must be known. The community was also given an understanding of the essence of Islam and the obligation to perform devotions to God through certain practices (*riyadhah*). The culmination of the given exercises was the spiritual achievement of closeness (*taqarrub*) with Allah SWT.

The development of Tarekat thought illustrates the dynamism or flexibility of Tarekat in *aqidah*, which further embodies religious behavior, thus forming world views derived from Tarekat teaching. The Tarekat is able to develop highly contextual thinking. Based on such understanding, Tarekat is also able to realise religious behaviour (charity) that does not seem rigid, constantly adjusting the concept of religious understanding along the lines of social dynamics. Tarekat thought and the social action was accepted because the *surau*, a culturally important centre of Minangkabau social structure and system, was the centre for the spread of Tarekat teaching. This is why the religious social movement of the Tarekat is called a structural movement.

Tarekat thought and behaviour influenced local society although the people at that time were not classified as a Tarekat congregation. The local community then grew into a culturally broad-minded, open and flexible society responding to the various changes that occurred. However, it remained consistent in maintaining its moral values, *sakali aie gadang, sakali tapian barubah, nan tapian tatap ado*. The Minangkabau religious mindset is highly contextual, departing from the belief that nature must change. Change is inevitable, but the essential values of life and humanity must not change. It is possible to change methods, but goals should not change.

The dynamism of religious thought remains the character of the Tarekat in general. Some people believe that the Tarekat are an exclusive social group, but this is not true. Interaction between the Tarekat and the local communities takes place openly. The Tarekat are in fact active and ever ready to serve the local communities in different ways, especially in religious matters. However, teaching the basic concepts of the Tarekat and their spiritual exercises (*riyadlah*) is done in an exclusive way through *bay'at*, a set of special agreements between teachers and students.

On one occasion, we observed the activities of one Tarekat group in the District of Limapuluh Kota in the *surau* of Buya Zedriwarman. When we arrived, a public recitation was being held. The *jama'ah* were from various regions in District of Limapuluh Kota. More than 250 members

of the congregation solemnly followed the recitation presented by Buya Zed. The teaching atmosphere was pleasant although the mosque was very simple, made of wood, the people sitting on simple woven mats. In one corner of the *surau*, a number of mosquito nets were installed; here,where the *salik* performed the ritual of *suluk*. The attendees were from various strata of society; there were farmers, traders, employees, students and lecturers from universities. The recitation lasted for nearly four hours. The most interesting part of the event was the last session of the recitation that involved discussion followed by questions and answers. The *jama'ah* were invited by Buya Zed to ask questions and to contribute their opinions on issues related to Tarekat teachings or daily problems. Interestingly, all questions asked by the community were answered in a straightforward, clear and polite manner.

The mindset, tolerance and flexibility of the Tarekat in dealing with and responding to various situations and circumstances were also reflected in the main points of thought that surfaced in the Focus Group Discussion (FGD) fora conducted for this study. The FGD was followed by a discussion led by Tarekat leaders from Payakumbuh and Limapuluh Kota Regency. Three things surfaced during the discussion. First, the Tarekat maintained the harmony of the social relations of the community. Therefore, all thoughts and actions that could damage the social order had to be rejected. The Tarekat were never aggressive in dealing with circumstances that caused chaos in society. Second, the Tarekat always made changes and improvements to the social and religious conditions of society through polite, persuasive and non-negative excesses. Third, when a condition considered a deviation arise, the Tarekat simply fixed it through advice, guidance and training and then handed the matter to Allah SWT.

During an interview with Buya Zed to understand the flexibility of the Tarekat in his thinking, attitude and actions, we learnt the following, as explained by Buya Zed:

> "… ordinary people think simple, knowledgeable people think cause-effect, then people 'wise think without limit. What kind of thinking do you choose? For me of course the way people think 'wisely chosen. If you've heard the phrase, "do not return milk with poisoned water" then I would say "reply a glass of poison with a glass of milk". This is the way of thinking, attitudes and actions of the Tarekat. And this is what should be disseminated to the public … "

Radical groups may have members who are highly educated and intellectual, but their aggression and intolerance, as Buya Zed explained, showed them up as rigid and narrow-minded. Such groups are bent on destructive actions. Any group that does not think as they do is marked for destruction. Their ideas and methods are out of the present-day context. One example of this took place at Masjid Raya Pasie Agam District, where among the *muballiq* at that

time was a hardliner. *Dakwah* material that he conveyed hit out at the religious traditions of the local community. He claimed, for example, that *tahlil* was heretical, praying for the dead would never help the dead, including deceased parents andit was not necessary to use the word '*Saidina*' when mentioning the name of the Prophet as the Prophet had not liked to be praised. The resposne to him was negative because his teaching was not delivered in a persuasive manner, but in a very confrontational way that was demeaning and disturbing.

Spirituality and rationality (raso-pareso).
Maqam *ma'rifah* is the highest peak in one's spiritual journey using the method of *thariqah*. This view is usually used in the study of *Sunni tasawwuf* adopted from the thought of Imam Al-Gazali. Conceptually, *ma'rifah* is understood as a blend of two important dimensions of man, namely, the ability to capture reality through senses (*dzawq*) and the ability to capture reality through rationality (*'aql*). Therefore, man is a spiritual as well as a rational being. If the development of these two potentials is not balanced, then man will not be able to reach perfection.

In Tarekat thinking, especially since the development of the idea ofreconciliation of *tasawuf-syari'at*, the achievement of *ma'rifah* must be done through methods and approaches rooted in the processing of taste potency (*dzawq*) as well as rational thinking (*'aql*). Processing ttaste potential is usually done through spiritual exercises (*riyadlah*), while training rational thought is usually

done through the development of knowledge that emphasises the senses. The dichotomy of spirituality-rationality is essentially a manifestation of the human need for esoteric and exoteric values. Although the Tarekat seem to emphasise fulfilment of human needs over esoteric values, they do not abandon or ignore exoteric aspects of religion. Spiritual attainment through Tarekat must be done by obeying and practising *shari'ah*.

Socio-historically, the role that Tarekat played in the fostering and development of socio-cultural life cannot be ignored. Tarekat *teaching* has manifested itself in the socio-cultural system. In the context of Minangkabau society in West Sumatra, the training and development of spiritual and rational life in society can be seen in various symbols and patterns of social action. Of course, the process of the formation of social action in Minangkabau society is complicated and complex. Clearly, Minangkabau community is known as a spiritual and rational society.

The Minangkabau are guided by the expression *raso dibao naiak, pareso dibao turun*. This phrase means that the Minangkabau identify sense as the virtue that must be expressed or exalted, while the intellect is identified as the ability to think or reason appropriately. The movement of *raso dibao naiak* and *pareso dibao turun* will meet at one point, wisdom. These two concepts describe the character of Minangkabau society. *Raso* represents the power of spirituality, while pareso represents the power of rationality.

The principle of spirituality-rationality (*raso-pareso*) in Minangkabau society is elaborated in the pattern of thinking, attitude and action. When faced with certain situations or conditions or ideas, the Minangkabau usually think them over for a long time and are cautious in responding. This is illustrated in the following phrases:

Babuek baiak pado-padoi – babuek buruak sakali jan

Hati-hati nan di ate – kok di bawah nan ka ma impok

Jarek sarupo jo jarami – ayam jantan babulu musang

Kok mandi di ilia-ilia – kok bakato di bawah-bawah

Cadiak anggak – gadang ta jua

Bantuak sipuluik – ditanak badarai

The above phrases describe the character of Minangkabau society in responding to change. When it comes to radical ideas and movements in West Sumatra, it is understandable that these are rejected naturally. Buya M. Nur Dt. P. Bakuruang, the leader of the Naqsyabandiyah congregation in Payakumbuh explained:

"... in Payakumbuh this there are indeed pengajian-pengajian held by groups that wing hard. This is wrong, it's wrong. It is customs that do not fit; the deeds of society are heresy, all sorts. On the matter they live here. For me *raso* is not on them even though their science is high. Someone without attitude and courtesy make their languages are inclined to harass others. In the case

of our religion, we are told to deliver a message in polite and polite language. There are manners in society that must be taken care of. And I'm sure such *dakwahs* will not be trash and will get rejection from the community. Because in our friendly and pleasant society in mind and in language."

Another case was explained by Buya Awiskarni, head of Madrasah Tarbiyah Islamiyah, Pasie Agam:

"... I as a scholar here have indeed found many such studies. Many of the lectures delivered to the community are blasphemous, blaming, and even inciting. Sometimes they finish giving public anxious lectures. If it's like that usually people ask me or ask me to give a real explanation. Once upon a time I invited the groups to debate or to zeal by showing strong references. Apparently they do not want to attend *muzakarah*. This means that their power of argument is sometimes not strong, or their studies are still raw. So in my opinion radical teachings will never get support from the community. Their efforts will be in vain."

The testimony presented by the two Tarekat clerics above illustrates the fact that radical groups die a natural death because of the strong influence of the character and thinking of Minangkabau society in West Sumatra. Spiritually, the intelligence of the community identifies their need for *raso* reflected in kindness and courtesy in

language and behaviour, which leads to the rejection of distorted or extreme ideas. Rational ideas and radical movements are usually not sourced from extensive and profound study, so the arguments they propose are narrow-minded and unable to exceed the limits of the *pareso* power of Minangkabau society.

Teacher-student relationship. Disciplinary relationships such as the teacher-student relationship within the Tarekat institution can be described as, "The position of the student before the teacher is the same as the position of a man's corpse in the hand that bathes him." This expression highlights the student's high level of obedience to his teacher. A teacher may do anything to lead his pupils to spiritual achievement as taught in the Tarekat ritual. However, in general, the Tarekat prevents the rise of any individual teacher as a cult figure. Respect and obedience to the teacher are seen as an absolute requirement for the success of the student.

Respect and obedience to the teacher is rooted in the *bay'ah* rituals that are the pre-requisites for prospective students who wish to attend Tarekat education and training. *Bay'ah* rituals are done in certain ways and must meet certain terms and conditions. Usually, each Tarekat institution has several items of agreement that must be obeyed by the student in performing the ritual and the Tarekat exercises. Therefore, it can be said that the teacher-student relationship in the Tarekat institution is patterned after one-way communication (top down). Students should

not engage in prohibitions that are laid down by the teacher and the pupil should not argue or ask questions about the teaching and exercises. Thus, the teacher becomes the centre of Tarekat groups and the role model for the students.

The Tarekat group structure begins with education in the *surau*. The *surau* is a social institution that serves to strengthen the teacher-student relationship in Tarekat groups. The genealogy system hat determines the authenticity of the Tarekat teachings. Historically, the *Surau Ulakan* founded by Sheikh Burhanuddin was the first educational and religious institution in Minangkabau. *Surau Ulakan* has a very big role in the development of Islam in all Minangkabau areas. The Tarekat movement in the social system of Minangkabau society originated from the surau built by a leader, a *Tuanku* or lord who completed his study of Tarekat. Each lord has his own *surau*, both as a place of worship and as a place of Tarekat instruction. At present, the *surau* functions primarily as a place for the practice of Tarekat, rather than as an educational institution. Every *surau* in Minangkabau has its own leaning, both in Tarekat practice and the emphasis of branches of Islamic science. *Surau* education attern creates different Islamic study centres in deepening the teachings of Islam in the *surau*, covering worship, *mu'amalah* and science tools. For example, the *surau* in Kamang is a centre of science and nervous studies; Surau Tuangku Nan Kaciek in Koto Gadang is a centre for *mantiq* and *ma'ani*; Surau Tuangku Sumaniak is a centre for *hadith, tafsir* and

faraidh; Surau Tuangku Talang is a centre for *sharaf* and Surau Tuangku Salayo is a centre for *badi', ma'ani* and *bayan*, while Surau Tuangku Nan Tuo is a centre for *tarbiyah, hadith, tafsir* and *mantik ma'ani* (Latief, 1982, p. 76).

The teacher-student structure can be seen in every Tarekat ritual event, such as the activity of the *Maulid Rasul*, or the *basapa* rituals of the Syattariyah congregation. Observation of the *basapa* activity revealed the strong relationship between the teacher and his students in the *jama'ah Syattariyah*. Teachers from different regions bring along their students to the *Surau Ulakan*; so, some groups of Tarekat *jama'ah* are led by *Tuanku* from different regions. The network of the *surau* is seen in the number of surau that stand around the *Surau Ulakan*. The *surau* are named according to its region of origin, such as Surau Koto Tangah Tilatang Kamang, Surau Lintau, Surau Bonjol Pasaman, Surau Limo Kaum Tanah Datar and Surau Koto nan Ampek Payakumbuh. There are many *surau* in Tanjung Medan, the beginning of the *pesantren* system of a campus of many *surau* known today. The number of *surau* also shows the dissemination of the teachings of the Tarekat Syattariyah in each region. This is called the movement of Tarekat group structures. The movement according to the pattern of teacher-student relationships. Azra (1992) called it the 'network of scholars'.

The congregation and the *surau* are able to conform to the existing social institutions in Minangkabau by not creating opposition and upheaval. The *surau* was born and accepted by the whole community as an additional institution of life in the *nagari* or *korong*. The Tarekat group is adept at responding to situations and emphasises the doctrine on the effort of inner serenity as a servant of God. Psychic training and remembrance are held to remember Allah SWT so as to maintain the peace of life in the village.

With a charismatic leadership pattern, *Shaykh*, the leader or *Tuanku* in the Minangkabau community is highly respected. He is an influential figure in society. The charisma of the Tarekat teacher is one of its tools for creating influence in society. The charisma of the Tarekat teacher can be seen in two dimensions. First, in appearance, the Tarekat teacher is usually big built and has a loud voice and a sharp eye. Second, he is skilled at teaching, has an impressive personality and is known to be knowledgeable, pious, morally sound and generous. The personality of the Tarekat leader is very important. He is able to draw followers and retain their trust, loyalty, obedience and respect (Crappas, 1993, p. 179).

What Weber described as 'rational-legal' legitimacy can also be found in societies that are based on traditional and charismatic sources. The charismatic leader is not naturally erased because of the strengthening of rational-legal legitimacy. Rational leadership can create conflict, whereas charismatic leadership can be more robust. Charismatic leaders can change

the behaviour of society, including that of modern society (Sujuthi, 2001; Robertson, 1995; Jonhson, 1986).

The Tarekat cleric as a charismatic leader is the main factor of social change in Minangkabau. Various socio-cultural changes in Minangkabau society are made possible through the influence of charismatic leadership of Tarekat clerics up to this day. The charismatic strength of the Tarekat scholar makes him a highly respected leader, not only to his students, but also to the wider community. This can also be seem in modern and educated societies. As Berger (1980) argued, the power of charisma can overhaul and change a very strong social system. Charisma is the driving force and power that can change the social system of any community. Kojtaraningrat (1991) explained that "charisma will remain in every society, both traditional societies and modern societies. Charismatic leadership has its roots in the culture and history of every society" (p. 47).

The charisma of Tarekat teachers is not only built on spiritual, supernatural-magical powers but also on the teacher's social roles. For example, a Tarekat teacher is usually also an *adat* functionary (*penghulu*) among his people, and some others also fill certain positions in traditional structures. Thus, the combination of spiritual and/or supernatural forces with social roles has its own value for Tarekat clergy as leaders of Minangkabau society in West Sumatra. In turn, it can be said that Tarekat scholars in West Sumatra

can play two important roles at once, in the religious system and in the social system.

The charismatic factor of Tarekat clerics in West Sumatra is a solid wall that is hard for radical ideas and movements to penetrate. The following explanation of Nasrul, a member of a Tarekat congregation, illustrates the power of the religious-emotional relationship between Tarekat teachers and their students:

> "For us Tarekat students, respect for the Tarekat teachers is *adab* that must be preserved. Following the teachings that the teacher presented was a form of homage to him. When we ask *bay'ah* to the teacher, there must be belief and trust to him. So, for us the development of radical group teachings, which seem to combat our existence, will not have much effect. We will not do the same thing, fight them with violence anyway. If we can, we will discuss. But if not, we leave it to our teacher. It is better for us to follow our teacher only, because it has been seen by us the proof of his charity, and morals. How we will be able to believe in the radical group, while they show contrary to the morals of Islam. Because as far as I know, and what I used to accept my teacher's dance, Islam never imparts the will to anyone, including to the religion of Islam. Moreover, those who impose the will to follow their teachings that is not necessarily also true." (Interview, October 2015)

A similar statement was made by Abu Bakar Tuanku Saidina, teacher of the Naqsyabandiyah Order, Kumpulan Bonjol, Pasaman:

> "... I am here as a teacher of Tarekat and also as *niniek mamak*. Both of them I live with the best. In surau I guided and cultivated jama'ah, then in my people also nurture kemenakan[13]. Even in this Nagari Collection I also often solve community problems. Especially now that many problems arise in society, including what you mentioned ... the hard streams ... are often reported to me ... and thank God, people are not quickly affected, they always ask for my opinion."

These interviews illustrate that radical ideas are not easily developed in Minangkabau society in West Sumatra because of the charisma of *ulama* leadership and *adat* leadership that is a strong influence on the social and cultural life of its people. The most interesting thing is that in certain areas of research, especially in the Darek region, clerical leadership and *adat* leadership unite in a charismatic figure, while in Rantau, although clerical leadership and *adat* leadership are not held by onea figure, the cooperation between the *ulama* and the *niniek mamak* is tight and firm. This defends the society from the onslaught of radical ideas in West Sumatra.

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[13]All children of sisters of a Minangkabau man; in addition, all tribal members are called nephews by the *penghulu* or *Datuk* of the tribe.

CONCLUSION

The solid blend of *adat* and Islam in West Sumatra is the result of the Tarekat movement. The growth and development of Islam in Minangkabau and the strong influence of Tarekat in unifying *adat* and Islam are caused by several factors. First, Islam contains many aspects of *tasauf* in its legal aspects. This means that the process of Islamisation of Minangkabau *adat* is done by the *ulama* or Tarekat teacher. The mystical aspects embodied in Tarekat teaching are due to previous influence by Hindu-Buddhist mysticism and the assimilation of local beliefs. Second, the relationship between teachers and their students in the Tarekat system facilitates the development of Islam in Minangkabau. The importance of genealogy combined with duty in cultivating *jama'ah* in its place of origin accelerates the process of spreading Islam through the Tarekat in Minangkabau communities. Third, the personality of the Tarekat teacher is the main attraction to Islam, making it is easily accepted by the society. The charisma of the Tarekat cleric makes him a respected person. His knowledge and experience also make him important in society.

The influence of Tarekat teachings on the culture of the Minangkabau is reflected in their thinking, behaviour and culture. The Islamic interpretation of life merges local culture and Islam. The natural philosophy of being a teacher is interpreted as *sunnatullah*, an example of the intermingling of Minangkabau philosophy and Islamic values. The relationship of Islam and *adat* in Minangkabau is very

complex; the Minangkabau people remain firmly adhered to Islam on the one hand, and retain their customary system on the other. This shows that Minangkabau society is showing new social wisdom as a result of the tradition of integration brought about by cultural Islamisation.

Social wisdom that grows and develops in the dynamics of West Sumatera is guided by the philosophy of *adat basandi syarak, syarak basandi Kitabullah – syarak mangato, adat mamakai*, which rejects violence and force. The rational-critical attitude of social wisdom combined with the concept of *raso-pareso*, reinforced by the charisma of the *ulama*, makes new ideas that are conveyed in a negative manner or that have no solid foundation unattractive to the local community, causing them to reject such ideas. Evidently, Tarekat teaching has an effect on the cultural system of the people of West Sumatra. Tarekat teaching underlies the structural and cultural characteristics of social and behavioural systems of the community. This is achieved through the teacher-student relationship structure and the network of Tarekat teachers.

Tarekat scholars strengthen their position in the leadership structure of the Minangkabau community through charismatic leadership that prioritises the exemplary and virtuous personality of each Tarekat cleric. Charismatic leaders attract the adherence of their followers on the basis of personal excellence, such as a divine mission, heroic acts and rewards that make them different. Charisma is a force of personality whose power is based on

personal attributes of the individual. Such individuals win recognition and elicit high respect and loyalty among people. People are readily obedient to a charismatic leader not because of formalities or tradition, but because of the individual's personality.

The social movements of Tarekat groups in Minangkabau, apart from the structural movements, are patterned along the various socio-cultural activities of the community, which have become merged with the teachings of Islam and Tarekat traditions. These movements are easy for the clerics and the people to follow as they are familiar with them.

Because the religious culture of the Tarekat is inseparable from that of Minangkabau culture, radical ideas and movements are generally rejected in West Sumatra. This resistance prevents social conflict, causing radicalism to 'bounce off' the community in an 'elastic' way. Tarekat culture is a firm blend of Tarekat texts and customary values seen as local wisdom.

The pattern of cultural resistance to radicalism among the Tarekat in West Sumatra does not take place in sequence. Structural and cultural movement happens simultaneously, following the movement of religion or *da'wah* activities. *Da'wah* movements like this are 'cultural *da'wah*', performed through culture, and at the same time, creates culture. *Da'wah* activities create acculturation between Islam and Minangkabau culture. It is called acculturation because the mixing of the two cultures has not eliminated Minangkabau cultural identity. Instead, it has led to

'Minangkabau Islam'. Minangkabau Islam is the practice of Islamic teaching from the platform of the local customs and traditions of Minangkabau society. This phenomenon now makes Islam and Minangkabau culture special. The combination of Islam and the local culture characterises and identifies Minangkabau community.

This study highlights that combating radicalism in religion does not necessarily need a legal approach. It can be done through local wisdom i.e. the potential and strength that exist in society can be harnessed to counter radicalism' this would be a more effective and wiser method of defeating radicalism. The power of naturally formed 'immunity' arising from society can more effectively control and dampen, even kill, various forms of violence and ideology. This study provides a more effective and wise alternative in response to radical ideologies and movements that threaten extablished societies.

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Identification of Gender of the Author of a Written Text using Topic-Independent Features

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ABSTRACT

Authorship profiling, which is the process of extraction of information about a text's author through linguistics analysis, is now gaining momentum as an interdisciplinary subject. Scholars who employ this technique (i.e. data analysis specialists, linguists, psychologists) study the identification of demographics, personality traits, education and the native language of authors of texts, among others. Gender, in this context, is the most popular variable. Some studies report accuracy as high as 80% or even higher in identifying the gender of a text's author. However, there are still many issues that must be addressed. Firstly, most of the previous research concerns English texts. Secondly, most of the papers focus on content-based features, which are obviously easily to imitate. Thirdly, many recent papers in the field make use of machine-learning algorithms with emphasis on accuracy, not on the differences between male and female writing. The objective of this paper is to reveal differences in male and female Russian written texts and to design a mathematical model to identify the gender of authors of texts using only high-frequency topic-independent text parameters. Special emphasis is made on comparing the obtained data on the differences in male and female written texts with those previously obtained for Russian and other languages. An original mathematical solution for identification of author's gender is set forth.

Keywords: Authorship profiling, corpus, corpus linguistics, gender attribution, gender identification, Russian language, stylometry

INTRODUCTION

For decades, scientists have studied the differences in writing done by males and females. These studies indicated a number of differences in the style of writing used by males and females and highlighted the possibility of identifying gender using written texts. However, these studies also argued that all of the differences were not inventory but rather probabilistic, as they manifested themselves in certain features of language use, both qualitatively and quantitatively. In order to identify the gender of an author using his/her text, special methods of analysis are necessary. Mulac and Lundell (1994) revealed that gender may be identified with 50% accuracy i.e. at the level of a random value. Studies concerning the development of methods to identify the gender of a text's author do not only have a practical importance, for instance, in marketing and forensics; indeed, they also have a theoretical significance as they allow one to identify the cognitive activity of males and females as manifested in their language use. Indeed, this gives a wider insight into human cognitive ability. The analysis of context-independent text parameters that are easy to extract by means of methods of natural language processing is vital in developing practically applicable methods of identifying the gender of a text's author.

Of course, sociolinguists have acquired a lot of information about the differences in male and female speech, but as Nini (2014) pointed out, "Little work has been done on relative frequencies of linguistic features. These forms have not been studied traditionally and other disciplines like computational linguistics and corpus linguistics are only now exploring their correlations with social dimensions" (p. 26). In some studies (analysing mostly English texts) it was found that females presented a higher frequency of the use of pronouns and negations, whereas males presented a higher frequency of determiners and prepositions. This was consistent with the proposal of Biber et al. (1998), that males are more informational, whereas females are more involved. Words longer than six letters and articles were found to be among other favourite male features (see Nini (2014) for a thorough review).

Authorship profiling, which is the process of extraction of information about text authors through linguistics analysis, is now gaining momentum as an interdisciplinary subject. Scholars who employ this technique, data-mining specialists and computer linguists, for instance, are dealing with the identification of demographics, personality traits, education and the native language of authors of texts, with gender being the most popular variable to identify (Koppel, Argamon, & Shimoni, 2002; Newman, Groom, Handelman, & Pennebaker, 2008; Argamon, Koppel, Pennebaker, & Schler, 2009). However, there are still many issues that must be addressed (Soler & Wanner, 2014). Most of the previous research studied texts written in English, although recently, some studies have looked at texts written in other languages (Rangel et al., 2015; Litvinova

et al., 2016). Scientists are still divided on what mathematical methods should be used for this purpose. The main issue is selecting the text parameters to analyse. Content-based features are considered the most effective, although it is obvious that they are consciously controlled and therefore, can be easily imitated. Studies employing style-based parameters such as lexical, syntactic and character use, for instance, do not normally provide explanation of the correlations between the parameters of the texts and the gender of their authors.

We argue that it is of particular importance to investigate differences at the level of frequently used context-independent text parameters and then to employ the parameters correlating with gender to design prognostic models. It is obvious that a list of such parameters should be expanded and more languages should be employed in identifying universal and language-specific differences in male and female speech.

The current study was performed using material from a specially designed corpus of texts written in Russian. Russian sociolinguists have carried out a lot of research addressing differences in male and female speech as well as gender imitation (see Oschepkova (2003) for detailed review). It was found that for respondents of different social groups (prisoners and university students), the following was typical even for gender imitation: males tended to make more mistakes; females made more use of negations; lexical diversity was higher in male texts, and; men used fewer clichés. However, the authors of these papers made

no attempt to identify the gender of text authors.

The Russian language has long been neglected in authorship profiling studies, but lately there have been relevant studies including those dealing with gender identification of text authors (Litvinova, 2014; Litvinova, Seredin, & Litvinova, 2015; Litvinova et al., 2016; Sboev et al., 2016). Note that the main focus has been on the accuracy of the resulting models rather than on differences between male and female writing. In this paper, we made it our objective to identify significant differences in qualitative parameters of Russian written texts by males and females to further design a prognostic model.

MATERIALS AND METHOD

This study utilised a specially designed and constantly growing corpus of Russian written texts, *RusPersonality* (Litvinova et al., 2016), which contained, aside from the texts themselves, rich metadata i.e. information about authors (gender, age, education, psychological testing data etc.). All the texts of the corpus were written by respondents according to the researchers' instructions. For this study, we selected two subcorpora from the corpus: (1) A total of 150 texts by 75 respondents (each respondent was instructed to write two texts, "Describe a Picture" and "What would I Spend a Million Dollars On?"); (2) A total of 1,354 texts by 677 respondents (description of a picture and a letter to a friend). All of the texts contained an average of 130-160 words.

In order to exclude a maximum of other characteristics that might affect the text parameters, we selected a fairly homogeneous group of respondents i.e. of students of large Russian universities aged 19 to 22. Since each respondent was instructed to write two texts on different topics, we used two analysis scenarios: In the first, we viewed each text individually and in the second, both texts by the same author were merged into one.

All the texts were marked using Python script based on a morphological analyser, *pymorphy2*, and processed using an online service, *istio.com*. The text parameters were only those that were not consciously controlled; finite forms of verbs and other clear indicators of an author's gender were not considered. The parameters were indicators of lexical diversity of a text and proportions of parts of speech and their correlations (a total of 78 parameters).

In order to determine the characteristics and type of connection between the text parameters and gender of the author, a correlation analysis was performed using the Pearson correlation coefficient ($p<0.05$). Calculations were done using the IBM SPSS statistics software. We established a number of correlations between the text parameters and the author's gender (0 – woman, 1 – man). A large number of the parameters of the texts and the gender of their authors correlated with $r=0.25$-0.39. Further, we selected only the parameters that correlated with the text author's gender in both subcorpora and in both scenarios ('merged' and 'individual').

Indeed, this allowed us to design a regression model considering the most significant correlations based on multiparameter linear approximation. However, testing of the quality of the models showed that this type of approximation yields a low level of accuracy as the parameters of texts by male and female are usually in overlapping ranges. Therefore, it was decided to use not a multiparameter regression model as we did in previous studies (Litvinova, 2014; Litvinova, Seredin, & Litvinova, 2015), but to design a few regression models instead.

RESULTS

Let us show the suggested approach using an example of five texts with the parameters correlated with the gender of an author with the highest r:

1. TTR (type-token ratio). This is the most commonly used index of lexical diversity of a text. Given a text t, let N_t be the number of tokens in t and V_t be the number of types in t, then the simplest measure for the TTR of the text t is:

$$TTR_t = V_t / N_t. \qquad [1]$$

Note that the measure in Eq. (1) is a number defined in [0, 1], since for any text results $1 \leq V_t \leq N_t$. Some interesting attempts to improve the TTR index have been proposed in the literature, although only a few of these variants possess key properties that are essential if they are to be used in our text comparison, and

these properties are harder to calculate (see Caruso et al. (2014) for details).

Since the texts in the corpus were of different length, we calculated TTR in the first 100 words of each text. Indeed, TTR-value is known to depend on the length of the analysed text and therefore, the comparison of values makes sense for the same number of tokens (Caruso et al., 2014, p. 139).

The index was calculated using *istio.com*. The correlation coefficient r=0.39. The resulting regression equation took the following form:

$$GENDER_1 = -0.669 + (2.622\ TTR). \quad [2]$$

2. Formality of a text that was calculated using the following formula (Nini, 2014):

$$F = (noun + adjective + preposition - pronoun -$$
$$-verbs - participles - adverbs -$$
$$-conjunction - interjections) + 100) / 2. \quad [3]$$

The correlation coefficient r=0.315.

The regression equation was as follows:

$$GENDER_2 = -0.637 + (0.971\ Formality). \quad [4]$$

3. Proportion of prepositions and pronoun-like adjectives in a text (r=0.243):

$$GENDER_3 = -0.188 +$$
$$+ (0.0432\ preposition + pronoun - like\ adjective) \quad [5]$$

4. Proportion of the 100 most frequently used Russian words in a text (Lyashevskaya & Sharov, 2009), r=-0.322.

The regression equation was as follows:

$$GENDER_4 = 1.500 - (0.0303\ Frequent\ ones). \quad [6]$$

5. The index of the functional density based on the ratio of function words to content words (r=-0.295).

$$GENDER_5 = 1.392 - (0.0229\ Function). \quad [7]$$

In order to properly estimate the obtained result, let us determine the average arithmetic values from the solutions obtained in the five equations:

$$GENDER = \frac{\sum_{i=1}^{5} GENDER_i}{5}. \quad [8]$$

Let us assume that a design value in the range [0; 0.499] indicates that the author of a text is female and in the range [0.500; 1]

shows that the author is male. In order to estimate the suggested approach, we used a corpus of texts with contributions from 553 individuals (368 women and 185 men, while two texts from each respondent were considered as one text). Their topic and length were identical to those used to design the regression models.

Let us determine the accuracy of the approach. Accuracy, in this context, was the ratio of the number of test documents that were correctly predicted to the total number of test documents. The calculations suggested that gender was correctly identified in 65% of the texts written by females and 63% of the texts written by males. Thus, the accuracy of the approach was 64%.

DISCUSSION

The analysis showed that in texts written in Russian by men compared to those written by women, the index of lexical diversity and the proportion of prepositions and pronoun-like adjectives were higher; in addition, the proportion of 100 most frequently used Russian words as well as the index of functional density was lower. Texts written by males were found to be more formal than texts written by females.

Overall, the data were in good agreement with the results obtained for texts written in English. Hence, as noted above, many scientists have argued that texts by men have on average more nouns and adjectives as well as prepositions and demonstrative and relative pronouns; in contrast, those by women have more verbs

and personal pronouns (see a detailed review in Nini, 2014). According to the literature, this is indicative of profound cognitive differences in the linguistic profiles of men and women: reporting is more important for men, while rapport is more significant for women. Therefore, texts by men seem more 'formal', while those by women seem more 'contextual' (see Heylighen & Dewaele, 2002 for more details). It is interesting to compare this with the paper by Saily, Siirtola and Nevalainen (2011), which shows that the prevalence of nouns in texts by men as opposed to pronouns in those by women was common in personal letters written in English from 1415 to 1681. Indeed, this shows that the above gender differences are universal.

Nini (2014) has shown that "the more personal a text becomes, the less likely it is to show a gender pattern of the rapport/report type. In other words, in a register in which individuals are already pressed to be involved and person-centred, there is no room for variation between rapport and report discourse, thus blocking the gender pattern from emerging" (p. 132). However, our analysis has shown that this effect is retained in personal texts such as letters to a friend.

We argue that a higher index of lexical diversity in texts by men is due to the above differences: In texts by males, there are fewer most frequently used words, the majority of which are function words; in addition, there are fewer repetitions and more unique vocabulary units occur in a text at one time. Mikros (2013), who analysed

Greek texts, found that texts written by men presented less lexical repetition and avoidance of standardised lexical patterns and a higher percentage of *hapax legomena*. Mikros also stated that woman used more function words than men.

These data are in good agreement with the results obtained for texts written in Russian (Oschepkova (2003), see above). It is interesting that the level of lexical diversity and the number of clichés were one of the few distinguishing parameters that were preserved in texts by females and males of different social groups and even in gender imitation.

CONCLUSION AND FUTURE WORK

The present study identified the differences between texts written in Russian by males and females using a range of context-independent parameters by means of a text corpus that was controlled simultaneously for the author's gender, age, education, text topic, genre and medium. The obtained results were in good agreement with those from previous studies on Russian and other languages. The use of only five linguistic parameters as part of the suggested approach showed that it is possible to identify the gender of text authors with accuracy above the random value.

There are plans to use the material of our newly designed *Russian Gender Imitation Corpus* to check whether the differences we have identified would be retained in a gender-imitation scenario as well as to carry on searching for more

differences in texts written by male and female authors that would remain even in a gender-imitation scenario.

In addition, rich metadata of the corpus would allow us to investigate the effect of biological and social gender as independent variables on text parameters (Chambers, 1992) as well as to evaluate the joint impact of these factors and a range of personality traits, functional cerebral asymmetry profile etc. on linguistic parameters. As correctly pointed out by Nini, it can be assumed that "the real differences in the linguistic patterns adopted by people depend on their personality and/or hormone levels and that genders are different to the extent that on average different genders are prone to different personality orientations and/or hormone levels" (2014, p. 34).

We also seek to employ language-independent text parameters for gender identification of text authors using the material of our corpus and freely available text corpora in other languages to identify universal differences in texts written by males and females.

This analysis to be conducted during further research would allow one to develop a more current and deeper insight into the way gender is manifested in written texts and to develop more accurate methods of identifying the gender of individuals based on the quantitative parameters of their texts.

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The Characteristics of Entrepreneurs with Successful and Sustainable Small Businesses in Northeastern Thailand

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ABSTRACT

This paper focusses on the characteristics of entrepreneurs with successful and sustainable small businesses in Northeastern Thailand. It presents a new model and components. This study aims: (1) To investigate the characteristics of entrepreneurs with successful and sustainable business; (2) To study the factors influencing success and sustainability; and (3) To develop a model based on these factors. Both quantitative and qualitative methods are implemented. The former makes use of in-depth interviews in which the collected data are analysed using content analysis. The results show that the characteristics of entrepreneurs who enjoyed sustainable success in operating small businesses could be categorised under six dimensions: a business spirit, proactiveness, competitive advantage, sustainability, human capital and firm performance. These factors had 12 components, namely, business orientation, business intelligence, environmental learning, corporate social responsibility, flexibility, technological speed, production capability, innovativeness, opportunity competency, inter-functional coordination, work effort and firm performance. Quantitative data are gathered using a questionnaire measuring these 12 components. It was administered to 391 small business entrepreneurs. The data are analysed using the LISREL Programme to develop a model. The results of the model show a good fit with a chi-square value of 10.45, p value of 0.98, goodness-of-fit index (GFI) of 1.00, Tucker-Lewis index (TLI) of 1.00, comparative fit index (CFI) of 1.00, standard root mean square (SRMR) of 0.01 and a root mean-square error of approximation (RMSEA) less than 0.01. The findings are discussed. Based on the characteristics of entrepreneurs with successful and sustainable small businesses, the results are a valid measure within a Thai context.

Keywords: Characteristics, entrepreneur, sustainable success

INTRODUCTION

IIn the 21st century, sustainability is an interesting paradigm of entrepreneurs. A 'sufficiency economy' is a philosophy introduced more than 25 years ago by His Majesty King Bhumibol Adulyadej of Thailand. This philosophy can be used to manage sustainability in Thailand in many socioeconomic situations (Naipinit et al., 2013). Fidrmuc and Korhonen (2010) argued that Asian economies could have suffered the larger impact in the current slowdown of the world economy than during earlier global downturns. The event has caused many businesses to collapse. Small business entrepreneurs have been especially affected. They had to reduce manufacturing volumes or they spun off and terminated their businesses.

The importance of small business entrepreneurs to the economy is defined by the Institute for Small and Medium Enterprises Development (2013). In a state of increasing employment, value-added activities represent the essence of a start-up business. These are core activities other than manufacturing, a source of skill development and a strengthening of the economic system. Businesses that are expected to continue in their current form for the foreseeable future are called 'going concerns'. Intense competition and the changing nature of today's business environment are the major reasons for the small business entrepreneur's need for sustainability to strengthen Thailand's economic system.

In Thailand, the GDP value of small and medium enterprises (SMEs) in 2015 was 5,559,534 million baht or 41.1% of the country's GDP. The GDP value of SMEs expanded by 5.3%, an increase from 0.4% in the previous year. Considering the GDP value as a function of the size of the enterprise, it was found that small businesses contributed 3,938,842 million baht to the GDP, an increase of 5.7% from the previous year and equivalent to 29.1% of the total GDP (The Office of Small and Medium Enterprises Promotion, 2016).

Small business entrepreneurs in Thailand usually face many problems. The main problems are the lack of entrepreneurship and business expertise, high competitiveness, ineffectiveness and low efficiency in innovation, weak management and lack of skilled labour (Thai Future Foundation, 2013). Another study found the problems of small business entrepreneurs were lack of financial support, poor management, corruption, lack of training and experience, poor infrastructure, insufficient profit and low demand for products and services (Okpara, 2011). Other major problems facing small business entrepreneurs in Thailand include shortfalls in knowledge or information on business opportunities, the approach to wider markets or customers, business planning and technical skills (Office of Entrepreneurial Development Department of Industrial Promotion, 2010). Hence, improving Thailand's economy requires building up small and sustainable businesses. Consequently, this research

studied the characteristics of entrepreneurs operating successful and sustainable small businesses in Northeastern Thailand.

CONCEPTUAL FRAMEWORK

The factors affecting small business performance have been widely explored. Two theories were used in this research. The first was a resource-based view of the firms (RBV) concentrating on the various capabilities of entrepreneurs. The second was a contingency approach that depends upon various internal and external factors to describe the characteristics of a business (Ayinla, 2007). The current research focused on the characteristics of successful entrepreneurs in Thailand and presents a new model with 12 components as discussed below.

Business Orientation (BO)

Business orientation (BO) is a characteristic way of exploring possibilities, state of mind and readiness to successfully operate a business. Business orientation comprises four components: global, virtual, innovation and collaboration. These factors affect an organisation's prosperity and sustainability or its decline (Lahiri, Pérez-Nordtvedt, & Renn, 2008).

Business Intelligence (BI)

Competitiveness can be defined as the ability to provide products and services. It is also the idea of socially responsible business that implements the business principles of sustainable development (Grabara & Dima,

2014). It has four aspects: competitors, competitiveness, management and sociality. Additionally, business intelligence is a process of collecting, organising, analysing and presenting information to assist with better decision-making and to increase competitiveness. It provides the capability for persons at all levels of a business of analysing information to manage the business, improve performance, seek opportunities and efficiently operate the business (Howson, 2007).

Environmental Learning (EL)

Sustainable entrepreneurship can be developed by including an environmental or socially responsible orientation in a company (Schaltegger & Wagner, 2011). Environmental learning is an ability to respond to changing business needs (Hausman, 2005). Most studies have found that small business entrepreneurs rarely have an environmental strategy (Schaper, 2002; Worthington & Patton, 2005).

Corporate Social Responsibility (CSR)

Baumann-Pauly, Wickert, Spence and Scherer (2013) hypothesised that small firms possess several favourable characteristics for promoting internal implementation of CSR-related practices in core business functions. Corporate social responsibility is a characteristic of environmental protection, human resources management, health and safety at work, relations with local communities and relations with suppliers and consumers (Branco & Rodrigues, 2006).

Small business entrepreneurs in Thailand have demonstrated an increasing awareness of corporate social responsibility in recent years (Maignan & Ralston, 2002).

Flexibility (F)

Smart (2012) suggested that flexible production has been used by a large number of detailers, manufacturers and retailers who face intense competition for customers. It has been called an implementation of plans to achieve strategic competitiveness with above-average returns (Ireland & Hitt, 1999). O'Regan and Ghobadian (2004) classified flexibility into four styles: transformational, transactional, human resource orientation and *laissez faire*.

Commercialisation Speed (CS)

Clausen and Korneliussen (2012) showed that entrepreneurial orientation had a positive effect on the ability to bring technology and products quickly to the market. Commercialisation speed means the capability of introducing new products more quickly than one's competitors (Zahra & Nielsen, 2002). Commercialised competency helps businesses gain competitive advantage over their competitors by reducing costs, improving quality, absorbing new technologies and improving their performance (Chen, 2009).

Production Capability (PC)

Alegre and Chiva (2013) suggested that entrepreneurs should enhance their organisational learning capability and innovation to boost production capability. Production capability means the capability to combine inputs to yield appropriate outputs. It is achieved when a given level of output is produced with a minimum bundle of inputs (Baek, 2004). Two factors that commonly affect the degree of production capability or production efficiency are measures of coaching quality and ability and measures of other franchise characteristics (Kahane, 2005). Productivity is achieved once a product is made at minimum cost.

Innovativeness (I)

Bridge and O'Neill (2012) found that small firms are an important source of innovation in products, techniques and services. Schumpeter (1934) identified innovation as the know-how of products, processes, organisations, markets and sources of supply. This is a useful starting point for an analysis of the dynamics and variety of innovative efforts. Research into the most successful characteristics of entrepreneurs indicates that innovativeness is developed from human resources, skills and their continuous development. The most important strategy of management nowadays is building sustainability from innovation. So, innovation is a key creative force enabling entrepreneurs to adapt to competition in the long term.

Opportunity Competency (OC)

One of the important causes of small business failure is poor business opportunity (Bridge & O'Neill, 2012). Entrepreneurs

with opportunity competency can improve their performance, and this results in increasing sales, profits and higher market share. Opportunity competency is a way to identify threats and business objectives that are particularly essential to going concerns (Grundvåg & Grønhaug, 2006). In quickly changing markets, where threats and opportunities arise very swiftly and unpredictably, one of the opportunity competencies is the capability to seek opportunities and avoid threats. Avoiding threats is very important to going concerns.

Inter-Functional Coordination (IFC)

Naidoo (2010) found that marketing innovation improved when manufacturing SMEs were competitor-orientated and had good inter-functional capabilities. Inter-functional coordination is focus on customer and competitor orientation, examining the relative associations of each with performance (Hult, Hurley, & Knight, 2004). Entrepreneurs who can create multi functional teams to achieve inter-functional coordination will acquire opportunities in the long term.

Work Exertion (WE)

Lai and Chen (2012) found that work effort had a positive effect on job performance and satisfaction. Work exertion is the effort that employees expend to achieve corporate goals. The terms, 'work attempt', 'work effort' and 'employee's work effort' are synonymous with 'work exertion' (Brown & Peterson, 1994).

Firm Performance (FP)

A successful measurement system should reflect all performance indicators that are relevant to an organisation's existence (Hillman & Keim, 2001; Laitinen, 2002; Amornpinyo, 2016). Financial returns and business growth, both in the short and long term, are principal performance measurements (Daily, McDougall, Covin, & Dalton, 2002). Amornpinyo (2013) noted four basic contributors to business sustainability i.e. assessment, communities, families and entrepreneurs.

Objectives of This Study

This study had three objectives. They were:

1) To study common characteristics of entrepreneurs with successful and sustainable small businesses

2) To analyse the characteristics of these entrepreneurs

3) To develop a causal relationship model to illustrate the success of these entrepreneurs.

RESEARCH METHODOLOGY

The qualitative method was used to accomplish Objective 1. Quantitative measurements were used to accomplish Objectives 2 and 3. The study was done in two phases as described below.

Phase 1

Unstructured interviews were done, in which 12 open-ended questions were asked.

Thirty participants recruited from small business enterprises were interviewed in this phase.

1. Three provinces in Northeastern Thailand with the highest number of small business enterprises were identified. They are Nakhon Ratchasima (N=5020), Khon Kaen (N=5274) and Ubon Ratchathani (N=4156). These provinces, respectively, account for 10.83%, 11.42% and 9.00% of the small businesses operated in the Northeast (The Office of SMEs Promotion, 2015). Each of these small businesses met the following criteria:

1.1. They are small enterprises, according to the Office of Small and Medium Enterprises Promotion (OSMEP) definition.

1.2. They are considered successful in their business category.

1.3. They have been in operation for at least 10 years.

2. Ten enterprises were selected from each of the 10 largest business categories in each province. The Thailand Standard Industrial Classification 2-Digit Code (TSIC) was used in this process. This identified the 30 enterprise types presented in Table 1.

Table 1
Enterprises by size and ten largest economic activities

Nakhon Ratchasima	Ubon Ratchathani	Khon Kaen
Retail trade excluding motor vehicles and motorbikes	Retail trade excluding motor vehicles and motorbikes	Retail trade excluding motor vehicles and motorbikes
Wholesale except motor vehicles and motorbikes	Wholesale except motor vehicles and motorbikes	Wholesale except motor vehicles and motorbikes
Food and Beverage service	Food and Beverage service	Food and Beverage service
Wholesale and retail trade, Repair of motor vehicles and motorbikes	Production of food products	Production of food products
Production of food products	Textile manufacturing	Wholesale and retail trade, repair of motor vehicles and motorbikes
Computer and Personal services	Garment manufacturing	Textile manufacturing
Management activities and Support service	Computer and Personal services	Computer and Personal services
Production of non-ferrous products	Art, Entertainment and Recreation	Art, Entertainment and Recreation
Garment manufacturing	Production of non-ferrous products	Production of non-ferrous products
Textile manufacturing	Hotels	Garment manufacturing

3. Three key informants from each enterprise were recruited for the interviews, making a total of 30 key informants recruited. The three informants were recruited based on their job: entrepreneur, manager and labourer. So, from each enterprise, one entrepreneur, one manager and one labourer were interviewed. The interviews were conducted via telephone. Each interview was recorded and subjected to primary review using triangulation methods i.e. different reviewers, times and locations. Content analysis was conducted, including data indexing, looking for keywords and identifying themes and finding units of meaning for each variable. Data reduction was then done, followed by selection of items.

From this phase, 52 items were identified based on the results of the interviews and related prior studies. These were used as the questionnaire items in the second phase.

Phase 2

Quantitative measurement was implemented in this phase. The Northeast is the region with the largest number of small business enterprises in Thailand (25.83%) (The Office of SMEs Promotion, 2015). Therefore, the population of this study was 46,187 small business entrepreneurs from 15 provinces in Northeastern Thailand. These enterprises were local and self-administrated and had been in operation for at least five years. Their employment and fixed assets complied with the Small and Medium Enterprises Promotion Act (Department of Business Development, Ministry of Commerce, 2016). The samples were 397 entrepreneurs selected using multi-stage stratified random sampling by province and by enterprise categories with a confidence level of 95%. The population and samples for this phase are presented in Table 2.

Table 2
Population and samples

Enterprises and Economic Activity	Population	Samples
Agriculture, Forestry and Fishing	349	3
Mining and Quarrying	349	3
Manufacturing	4,421	38
Electricity, Gas, Steam and Air Conditioning Supply	116	1
Water Supply, Wastewater and Waste Management and Relevant Activities	349	3
Construction	11,751	101
Wholesale, Retail Trade, Repair of Motor Vehicles and Motorbikes	12,100	104
Transport and Storage	1,861	16
Hotels and Restaurants	1,163	10
News and Information and Communication	2,443	21

Table 2 *(continue)*

Enterprises and Economic Activity	Population	Samples
Financial Activities and Insurance	1,396	12
Real Estate Activities	2,909	25
Professional, Scientific and Academic Activities	3,025	26
Management Activities and Support Service	1,512	13
Education	465	4
Health and Social Work	233	2
Art, Entertainment and Recreation	1,396	12
Total	46187	397

The research instrument was a questionnaire from Phase 1. It used a 5-point rating scale. The questionnaire was tested for its content validity using the Index of Item Objective Congruence (IOC) and for reliability using the Cronbach's Alpha coefficient. The IOC of the questionnaire items was between 0.8 and 1 and the Cronbach's Alpha Coefficient for the questionnaire was 0.919.

Data were analysed using the Exploratory Factor Analysis (EFA). Structural Equation Modelling (SEM) was developed from analysis of the results, related theories and studies. A correlation test was conducted between SEM and empirical data by means of LISREL programming to analyse the causal relationships between the variables. Path Analysis, Regression Analysis (Coefficient of Determination) and Confirmatory Factor Analysis (CFA) were also done.

Suitability of the model was evaluated using six indices, which reflected the overall model fit. These were: (1) the chi-square statistic; (2) the goodness-of-fit index (GFI); (3) the comparative fit index (CFI); (4) the Tucker-Lewis index (TLI); (5) the standard root mean square (SRMR); and (6) the root mean-square error of approximation (RMSEA).

The model was then presented to direct stakeholders to gain their opinion and suggestions for improvement.

RESULTS AND DISCUSSION

The respondents' demographic profile assembled from the questionnaire is presented in Table 3.

Table 3
Respondents' demographic profile

		Number	Percentage (%)
Gender	Male	255	65.22
	Female	136	34.78
Age	30 – 40 years	72	18.41
	41 – 50 years	102	26.09
	51 years and older	217	55.50
Education	Graduate or Undergraduate	278	71.10
	Postgraduate	113	28.90
Business duration	5 years or less	12	3.16
	6 – 10 years	54	14.21
	10 years and longer	314	82.63
Position	Chairman	142	36.50
	Managing Director	233	59.90
	etc.	14	3.60
Employees	15 employees or fewer	171	44.42
	16-25 employees	102	26.49
	More than 26 employees	112	29.09

The results of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was 0.67, which was acceptable. The result of Bartlett's Test was significant at a value less than 0.01 as presented in Table 4.

Table 4
KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.670
Bartlett's Test of Sphericity	Approx. Chi-Square	25313.988
	df	1326
	Sig.	0.000

In the factor analysis, findings from the questionnaire were classified into 12 factors using the latent root criterion. Only those factors with Eigen values greater than 1 were considered. The Percentage of Variance Criterion and the Cumulative Percentage of Total Variance are presented in Table 5.

Table 5
Total variance explained

Component	Initial Eigen Values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	20.121	38.694	38.694	20.121	38.694	38.694	5.534	10.643	10.643
2	3.646	7.011	45.705	3.646	7.011	45.705	4.879	9.383	20.026
3	2.554	4.912	50.617	2.554	4.912	50.617	4.275	8.221	28.247
4	2.395	4.605	55.223	2.395	4.605	55.223	4.250	8.172	36.420
5	2.262	4.351	59.574	2.262	4.351	59.574	3.523	6.775	43.194
6	1.991	3.830	63.403	1.991	3.830	63.403	3.412	6.562	49.756
7	1.673	3.217	66.621	1.673	3.217	66.621	3.019	5.806	55.563
8	1.590	3.057	69.678	1.590	3.057	69.678	2.901	5.578	61.141
9	1.450	2.788	72.466	1.450	2.788	72.466	2.673	5.140	66.281
10	1.409	2.710	75.176	1.409	2.710	75.176	2.406	4.627	70.908
11	1.160	2.231	77.407	1.160	2.231	77.407	2.405	4.625	75.532
12	1.074	2.065	79.472	1.074	2.065	79.472	2.049	3.940	79.472

Extraction Method: Principal Component Analysis

According to a study of relevant research and the interviews in the first phase, 52 questions were generated for the second phase. For the factor analysis, the findings from the questions were classified into 12 factors based on theories and related research studies i.e. business orientation, business intelligence, environmental learning, corporate social responsibility, flexibility, technology speed, production capability, innovativeness, opportunity competency, inter-functional coordination, work effort and firm performance. The researchers built a causal relationship model using six dimensions of characteristics i.e. business spirit, proactiveness, competitive advantage, sustainability, human capital and firm performance, as detailed below.

Business spirit comprised business orientation (standardised coefficient – $\lambda=0.71$, T-value=14.73) and business intelligence (standardised coefficient – $\lambda=0.79$, T-value=16.55). This is a consequence of business orientation being a characteristic of giving precedence to seeking ways of increasing the competitive advantage and growth of the firm (Ireland, Hitt, & Sirmon, 2003). Business intelligence combines products, technology and methods to organise key information that management needs to improve profit and performance (Williams & Williams, 2010).

Proactiveness included environmental learning (standardised coefficient – $\lambda=0.72$, T-value=14.37) and corporate social responsibility (standardised coefficient – $\lambda=0.41$, T-value=12.45), since both are contingent variables that depend on the situation and environmental changes following the concept of contingency

approach (Aragon-Correa & Sharma, 2003). Kreiser et al. (2013) found positive and moderate relationships between proactiveness, performance and proactiveness that displayed positive U-shaped relationships with SME performance.

Competitive advantage included flexibility (standardised coefficient – λ=0.73, T-value=11.89), technological speed (standardised coefficient –λ=0.74, T-value=11.43) and production capability. Flexibility (standardised coefficient – λ=0.71, T-value=9.98) is a characteristic of an entrepreneur to adapt the roles of all functions to match the current situation, thereby attaining competitive opportunities (Dreyer & Grønhaug, 2004). Zhou and Wu (2010) found that a technological capability impedes innovation. Flexibility positive effects of technological capability on exploration and technological capability are associated with innovation.

Innovativeness (standardised coefficient –λ=1.29, T-value=9.05) and opportunity competency (standardised coefficient – λ=1.15, T-value=8.75) are components of sustainability. The ability to create never-before-seen products and services or new procedures or processes to meet customer needs is innovativeness (Krisciunas & Greblikaite, 2007). Opportunity competency is the capability of finding new business breakthroughs, such as new products, services, technologies or operational procedures. Moreover, product innovation

processes will encourage a company to have a strategic sustainability perspective, which will support the company's long-term success (Hallstedt et al., 2013).

Human capital comprised inter-functional coordination (standardised coefficient –λ=1.02, T-value=10.18) and work effort (standardised coefficient – λ=0.52, T-value=9.07). Inter-functional coordination is the characteristic of being able to create relationships within management teams that have diversity (Auh & Menguc, 2005). Inter-functional coordination has a crucial role in overall performance in every type of organisation (Hult, Snow, & Kandemir, 2003). Work effort is the characteristic of an entrepreneur to awaken the full engagement of employees to work for success. Barnes and Liao (2012) found that both work effort (competency at the individual level) and inter-functional coordination (competency at the organisational level) have significant and positive effects on firm performance.

Consequently, this study created a conceptual model to illustrate the characteristics of entrepreneurs who operated successful and sustainable businesses. The model was analysed. The first model did not fit the data well, and was revised. The revision of the model was done using modification indices (MI) (Byrne, 2013; Kline, 2005). The hypothesised and revised model retained all 52 items. The revised model, which had a better fit, is shown in Figure 1 and Table 2.
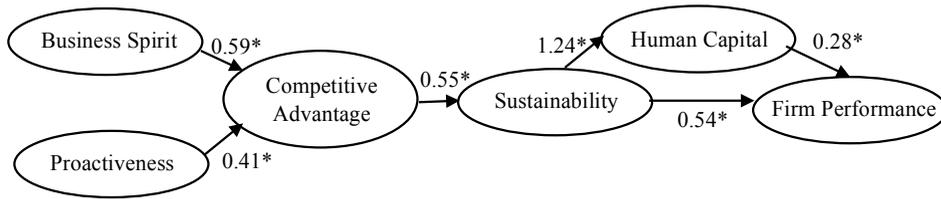
Figure 1. The results of the revised causality model
Note: * a significant level of 0.05

Table 6
Results of goodness-of-fit indices of hypothesised and revised measurement model

Indices	Recommended	Hypothesised Model	Revised Model
Chi-square		1146.58	10.45
p-value	>0.05	0.00	0.88
GFI	>0.90	0.72	1.00
TLI	>0.90	0.82	1.00
CFI	>0.90	0.86	1.00
SRMR	<0.05	0.07	0.01
RMSEA	<0.05	0.18	0.00

This research established a new construct of the characteristics of entrepreneurs with successful and sustainable businesses. Most prior research showed sustainability as concepts with no category of components as variables. These were broad ranges of ideas showing how to approach good performance. This research revealed the means to build a model illustrating the characteristics of entrepreneurs with successful and sustainable small businesses. Six dimensions of characteristics were found. It is important to consider business spirit and proactiveness as antecedents of sustainability and competitive advantage as a moderator. Additionally, sustainability directly affects firm performance and indirectly affects human capital.

The model was then evaluated by 10 stakeholders, including scholars, entrepreneurs, managers and labourers. The results revealed that the model provided inclusive and in-depth information and the stakeholders supported the model.

This research supports and complements the theory of RBV and the contingency approach by establishing antecedent variables (business orientation, business intelligence, environmental learning and corporate social responsibility) of competitive advantage. These are necessary for creating sustainability under the principles of RBV and contingency, whereas the variables of sustainability (innovativeness and opportunity competency) encourage firm performance through human capital

(inter-functional coordination and work effort).

This research found that sustainability has two components i.e. innovativeness and opportunity competency that affect firm performance. Earlier researchers examined characteristics of an entrepreneur to support short-term success, but this research shifts the concept from the short term to the long term.

CONCLUSION

This research examined six dimensions of the characteristics of entrepreneurs with successful and sustainable small businesses. The model fit the data well. The important characteristics of these entrepreneurs were business spirit, proactiveness, competitive advantage, sustainability, human capital and firm performance. All six dimensions were found to be valid and reliable. This study highlights the importance of the development and training of entrepreneurs. These characteristics support sustainability. It can be concluded that the scale of this study is suitable in a Thai context and that these six dimensions have broad applicability across Thai culture.

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SOCIAL SCIENCES & HUMANITIES

Debunking the Myth of Money as Motivator in a Multigenerational Workforce

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ABSTRACT

Granting an annual increment is the norm in Asian countries. Organisations spend millions on salaries, hoping for better performance. Undeniably, money is a crucial necessity for all. However, can it motivate every individual to work harder or to perform better at a job? Is the thought that everyone is money driven a misguided perception? This question is becoming increasingly pertinent with every change to workforce demographics as workers of newer generations come on board. With Baby Boomers, Generation X and Generation Y working side by side in the same space, workers are no longer a homogenous group. Today's workforce is the most diverse in history. Hence, the purpose of this study is to explore the truth of the perception that money is a motivator for good performance at work and to discover the actual motivators to work well of each generation. The findings confirm that money is perceived as the motivator for all the three generations. However, each generation is also driven by other specific motivators. With a multigenerational workforce, employers will need to take these motivators into consideration.

Keywords: Baby boomer, Generation X, Generation Y, money, motivator

INTRODUCTION

Salary increments have become the norm in Asian countries over the years. Employees have come to expect a yearly increment as an 'entitlement' in exchange for services rendered for the year. This indicates the perception among employees that a yearly increment is a given regardless of their performance. The scenario is

further aggravated by the meddling of union workers, particularly in Malaysia. A minimum/fixed increment and/or bonus have come to be included in the terms and conditions of a collective agreement signed by the employer and the employee. Compared with other countries, among non-unionised employees, very few, if any, are not awarded this 'entitlement' in Asian countries (Joann & Kemba, 2001). Increments are costly to organisations in the long run. In order to gain a competitive advantage in the global economy, organisations can no longer pass on costs to customers for fear of losing business to competitors. While organisations are treating salary increment as an employee retention tool, millions of dollars are spent on salaries in the hope of improved or better work performance in return. However, it does not seem able to guarantee either better work performance or company loyalty on the employees' part. How far should organisations go and to what extent does money motivate employees to help organisations achieve their goals? This research attempts to answer these questions, considering specifically the two questions below:

1. Is money the primary motivator of all generations when it comes to work?

2. What are the true motivators of each generation to perform well at work?

This research hopes to contribute to the theory of generations and the person-focused plan when rewarding employees by examining these questions through a different lens i.e. by exploring insights into actual and perceived motivators of employees to work hard and well. This theory hopes to add on to the knowledge that the person-focused plan should also take into consideration the special characteristics of the generation the person belongs to in addition to the competencies, knowledge and skills the individual possesses.

Background

Salary is viewed as the most important factor by both genders with 26.5% of urban Malaysians agreeing to this statement. A JobsCentral survey revealed that the happiest employees earn more than RM10,000 per month (JobsCentral [M] Sdn Bhd, 2012). On the flip side, one may ask, "How long would anyone stay in a job that involved just sitting by and doing nothing every day? Would it be more meaningful to stick to one's current job or switch to a stress-free job like cleaning the office with no increment?" Dan Ariely, a professor of psychology and behavioural economics conducted several experiments and revealed that there are other non-pay factors that matter, such as sense of purpose, visible results and receiving acknowledgement of one's effort (Lizard, 2014). Salary or money is indeed important only at the point of accepting a job offer, but it does not seem to have a lasting effect. This is in line with a report published by the Senior Professional in Human Resources (SPHR®), which stated that 88% of employees resign for reasons other than pay but the irony is that 70% of managers think employees leave mainly for pay-related reasons (Yazinski, 2009)

despite the various motivational theories, such as Herzberg's two-factor theory. Here, it is obvious that the organisation's perception and the actual preference of employees are not in line and skewed. Hence, are organisations focussing on the wrong factor all together? Money may be an important factor, but how far does it motivate the individual? Even if it does motivate some employees can it be said that money is a motivator for all employees? This research hopes to contribute to the theory of generations and the person-focused plan to investigate if there are other factors besides money that motivate employees to perform better at the workplace today.

Employers cannot shy away from the business trends that are shaping organisations today. The top trends in the workplace are changes in workforce demographic, competition, leveraging and economic challenges (Society for Human Resource Management, 2010). Today's workplace is the most diverse in history, with employees from various generations working side by side to achieve the organisation's objectives. This trend will continue for the next 10 years or more (Mencl & Lester, 2014). Workforce diversity also means dealing with multiple perspectives arising from a vast array of backgrounds and life experiences (Clark, 2017; Lee & Tay, 2012) that each generation brings to the workplace. Work profiles are no longer similar across cohorts; this fact indicates that different cohorts of workers may not operate in the same manner (Meriac, Woehr, & Banister, 2010); therefore, a standard motivation programme

may not work for all groups of workers. Because the work environment today is highly competitive, organisations think that employees leave for pay-related matters, as reported by the Senior Professional in Human Resources (SPHR®) (Yazinski, 2009). Employers need to understand that relying solely on salary and bonuses to motivate employees is an inefficient way of managing employee performance today (Rakyan & Wang, 2017). Employees now are no longer satisfied with the standard programmes that employers believe should work for everyone. Even gender plays a role in what motivates people to be self-employed (Allen & Curington, 2014). When it comes to employee management, generic strategies no longer work. It is time for employers to have a plan that caters for the needs of their employees based on differences in the cohort generation. This approach will allow employers to bring out the best in every employee in order to gain a competitive edge over their rivals.

To remain competitive, organisations use numerous strategies to bring out the best in their human capital. Giving out an annual increment and bonus is the norm in most Asian countries in both the private and public sectors. In South Asia, for example, a yearly increment is almost automatic, except where there has been shoddy work or misconduct (Chew, 1992). A survey conducted by Hays (2014) in Asia for example, reported that only 12% of the employees did not get a bonus. As for their Western counterparts, it is reported that only 15% in the legal industry in San Francisco

get a bonus (Joann & Kemba, 2001). Yearly increments and bonuses sooner or later cut into the profit margin of an organisation. In the year 2012, the yearly increment in Asia ranged from an average of 4.5% to 13.7%, and bonuses ranged from an average of 2.00 to 4.41 months of the regular salary (HayGroup, 2012). Even the Japanese are now considering a flexible wage system (Kuroda, 2006) or a performance-based wage system (Ogoshi, 2006).

However, on the other hand, in order to stay competitive, organisations find it hard to raise the price of their products for fear of losing customers. To keep prices low, organisations have to always look into operation cost. Compensation is the largest single expense in any industry, perhaps constituting more than 80% of expenses in the service industry (The Bureau of National Affairs, 2012). With reference to the Malaysian labour market, Table 1 shows that the services sector is the largest employer of labour, 51% in 2006 and 56% in 2014. Yet, higher salaries may not guarantee better performance and employee retention as some do leave for lower-paying jobs. As Kohn (1993) put it, rewards temporarily change what people do without creating lasting commitment. Hence, it is important to look into the role of money and to leverage on the actual motivators that are shaping today's multigenerational workforce at a time when economic climate is indeed challenging.

Table 1
Malaysian labour market by sector (%)

Sector	2006	2014
Agriculture	13.0%	9.3%
Industry	36.0%	34.7%
Service	51.0%	56.0%

Source: CIA World Factbook (2015)

Theories

Herzberg's motivation-hygiene theory, the two-factor theory, states that individuals will not be contented with the fulfilment of lower-order needs, which in terms of the workplace, would refer to minimum salary levels, safety and pleasant working conditions. Rather, individuals would look for gratification of higher-level psychological needs, which include achievement, recognition, responsibility, advancement and the nature of the work itself. This appears to parallel Maslow's hierarchy of needs theory. In this research, the motivators, intrinsic values, were considered as the hygiene factors (e.g. status, job security, salary, fringe benefits, work conditions, good pay, paid insurance, vacations) that do not give positive satisfaction or lead to a higher level of motivation, though dissatisfaction could arise if they were absent. The term 'hygiene' is used in the sense of maintenance factors. These are extrinsic to the work itself, and include aspects such as company policies, supervisory practices and wages/salary.

When it comes to compensation, under the person-focused plan, companies must

recognise differences between employees by paying individuals according to their credentials, knowledge and job performance. This plan should also take social background or the generation the employee belongs to into consideration. Person-focused pay programmes represent an important innovation in compensation. Person-focused pay systems imply that employees must move away from viewing pay as an entitlement. Instead, these systems treat compensation as a reward earned for acquiring and implementing job-relevant knowledge and skills. Advocates of person-focused pay programmes offer two key reasons for firms seeking competitive advantage to adopt this form of compensation i.e. technological innovation and increased global competition.

Generational Differences in the Workforce

A generation is an identifiable group based on birth year; thus, all persons born in a particular generation would share major life events (Kupperschmidt, 2000). A generation generally covers a period of 20 years (Sayers, 2007). Each generation brings with it distinct values, attitudes, behaviour and expectations (Crampton & Hodge, 2007).

Baby Boomers. Baby Boomers were born during the years 1946 to 1964 (Jenkins, 2008) and are the most workaholic among all workers (Berl, 2006; Carlson, 2004; Crumpacker & Crumpacker, 2007). They are optimistic by nature and their strong focus on diligence and achievement may

mean that this group has difficulty in balancing work and family life (Dilworth & Kingsbury, 2005; Smola & Sutton, 2002). Their preferred style of working is to reach consensus through seminars and meetings and to embrace team decision. For them, having face-to-face communication is important; they prefer to walk over to their colleague to get an answer to a question (Yu & Miller, 2005) even though accessibility to telephone and email, common tools in every employee's work station, is readily available. This explains the lower usage of communication gadgets by the Boomers as compared to Generations X and Y (Ramasubbu, 2016).

Generation X. Generation X, also known as X-ers or the 13th Generation, were born during the years 1965 to 1980 (Glass, 2007). This generation desires to be self-reliant. They are renowned for planning one or two jobs ahead of their current employment in order to stay ahead. Loyalty to organisation is not a priority to them. They seek challenging jobs and the necessary training to acquire career security, to which they are loyal rather than to job security (Kupperschmidt, 2000). They are comfortable and adapt well to change, including career transformation (Sayers, 2007).

Generation Y. Generation Y, born during the years 1981 to 2001, is the youngest age group in the workplace today. They are also called Millennials, the Internet Generation, Generation Next or the Net Generation (Glass, 2007), dot.com generation (Yu &

Miller, 2005), the N-Geners (Tapscott, 1998) or Generation Me (Becton, Walker, & Jones-Farmer, 2014). This generation is independent and entrepreneurial and demands immediate feedback (Martin, 2005). They would rather send a quick email than have face-to-face communication, unlike Baby Boomers, and this may hinder personal relationship with colleagues, supervisors, direct reports and clients (Glass, 2007). Having high expectations of themselves and their employers are their fundamental trait (Foreman, 2006). Work should be meaningful to them. They also value freedom in performing tasks (Özçelik, 2015). They prefer fast-track leadership programmes, a clear career path, recognition and rewards based on contributions (Glass, 2007). Acknowledging the importance of these traits, one major employer, Citigroup, announced its recruitment plan in 2016 to reach out to Generation Y by providing a rapid path for promotion (Rexrode, 2016). To date, Generation Y is the largest generation in the labour force (Fry, 2015).

Each generation has a different set of beliefs, values and attitudes to work. They have different interactional styles and preferences and may misinterpret words and actions of employees from other generations. These can result in deviation in behavioural patterns as explained Smola and Sutton (2002). These differences among the generations can also be translated as different responses to the same motivator. This research revealed the gap between actual the work motivators and the perceived work motivators that guide each of the three

generations, and looked at the implication of actions taken by management that would allow human resource professionals to benefit from the intrinsic differences among the three geenerations. Hence, the research hypotheses are as follows:

H1: Money is judged as the primary motivator of all generations.

H2: Money is not the actual motivator of all generations.

MATERIALS AND METHOD

Face-to-face interviews were carried out, where stratified random sampling was employed for equal representation from each generation cohort. Only Malaysians working in the Klang Valley were taken into consideration. The Klang Valley was chosen as it is the location of Kuala Lumpur, the capital of Malaysia. The youngest informant considered for this research was 16 years of age, the minimum legal age to enter the Malaysian workforce.

All the informants were informed of the purpose of the research, the expected duration of the in-depth interview and their right to withdraw from participation at any point of time before the interview began. The sampling method for this research was reviewed and approved by the Ethics Committee of the University of Malaya. The participants were not required to disclose any identifying information and they were aware of the ethical consideration of this research for anonymity and confidentiality. The participants were protected, as they were not identified throughout the interview process. Participation was voluntary. Protecting

informant anonymity is one of the methods recommended by Podsakoff, Mackenzie, Lee and Podsakoff (2003) to reduce method bias as it reduces the likelihood of informants editing their responses to be more socially desirable or consistent with what they think the researcher wants.

Prior to the actual research, a pilot test was conducted to ensure that all the questions were comprehensible. A pilot test of 10 informants was first carried out, and three to four informants from each generation were randomly chosen for the interviews. The informants were given the opportunity to comment on clarity and relevancy of the various statements included in the interview guideline (see the Appendix). Feedback obtained from a pilot test allows the researcher a final opportunity to make changes (Robson, 2002) to the interview items. The results of the pilot study showed that the questions were clearly understood by the informants from all the three generations. These 10 responses were then included in the actual study.

As part of a larger study, 70 interviews were conducted over a period of four months. Sixty-three of the responses were usable; the remaining seven participants withdrew from participation. Griffin and Hauser (1993) suggested that a sample size of 30 informants for qualitative research is acceptable for obtaining a full range or nearly full range of possible vital insights. Out of the 63, 21 were Baby Boomers, 22 were from Generation X and 20 were from Generation Y. The informants were aware that there was no 'right' or 'wrong' answer

to the questions. After a short introduction to the research, they were asked to describe and elaborate on the driving factor that prompted them to work. They were also probed to describe what they believed was the driving factor of their immediate supervisor to work, as their supervisor, whom they always worked with, might come from a different generation. The driving factors recorded from both perspectives were then crossed checked with the generation cohort as the control. To facilitate this, the informants were asked to choose their age range and their respective supervisor's age range based on a generational definition. Each in-depth interview took about half an hour.

Under demographics, one question asked for year of birth to serve as check-and-balance for the generation to which the informants and their immediate supervisors belonged. They were required to choose a range based on generational definition, that is, from 1981 to 1995, 1965 to 1980 or 1946 to 1964. Other demographic questions included the informants' highest qualification attained, job level and tenure in the organisation.

The current research adapted the content analysis, a widely used method for qualitative research, in order to provide insight into human interaction and the relevant variables. Content analysis as a research method is a systematic and objective means of describing and quantifying phenomena (Krippendorff, 1980). The objective is to obtain a condensed and broad description of a phenomenon. Data obtained were first conceptualised, coded

and categorised into concepts, and then categorised into concepts by age group or patterns including immersing oneself in the data as recommended by Hammersley and Atkinson (1983) to identify possible phenomena, inconsistencies and divergent views given by the different generations. The driving factors were then matched based on generation.

RESULTS AND DISCUSSION

There were 63 usable responses, yielding a response rate of 90%. Out of the 63 respondents, 21 were Baby Boomers, 22 were Generation X and 20 were Generation Y. As society has been placing more emphasis on education over time, individuals from all three generations appear to be willing to invest time and energy into obtaining higher education. The study showed that educational qualification among Baby Boomers was quite equally spread out compared with the other two generations. The Baby Boomers interviewed had attained at least secondary school (24%), a degree or professional (24%) and postgraduate qualification (24%). They had continued to pursue higher education even after starting work or while working. On the contrary, the majority of Generation X had at least a degree or professional qualification (41%). Similarly, the majority of Generation Y had either a pre-university qualification (35%) with the aim to pursue higher education later, or currently held a degree (45%).

When it came to current position held, the majority of the Baby Boomers were Assistant Managers and above (62%) and

Non-Executive (33%); those who were capable had moved up to at least the position of Assistant Manager. Generation X, being at the prime working age, was comprised mainly of Assistant Managers and above (54%), followed by Executive or Senior Executive (32%) and Non-Executive (14%). The trend was reversed for Generation Y, as they were still gaining work knowledge and some had yet to complete their education or wished to further their studies. The data concerning employment position reflected the career stage of the participants with regard to their age and in no way reflect on their capabilities or the capabilities of the generation they represented.

A comparison of tenure in the organisation across generations revealed that the Baby Boomers tended to stay longer within an organisation compared with the other two groups. This trend was in line with the report by Florida (2009), who showed that employees under the age of 30 seemed to change jobs once every one and a half years compared with the national average of once every three years. One may argue that it is only natural for Generation Y to stay in an organisation for less than a year as they are young and may not have decided on a career path as yet. However, a closer look at the sample demographics revealed that they tended to stay in organisations for a period of one to less than three years. The following was from the interview with one Generation Y graduate:

> "I have changed four jobs this year and I am looking out now. I cannot stay in the same organisation for so

long. Just do not understand how others do it."

Another Generation Y informant said, "Staying in the same organisation for more than three years is just not me." However, if we were to compare this tendency with the behaviour of the Baby Boomers when they were young, it would be clear that it is very different from their response. Baby Boomers tended to stay longer in an organisation. It was common to hear that they changed jobs fewer than three times in their entire working career. Generation Y tended to change jobs more often than the other two generations (Campione, 2015). If we were to look at the data holistically, employee turnover is a common phenomenon not only in the West but also in Asian countries such as Malaysia, Singapore, South Korea and Taiwan, as reported by Chang (1996). HayGroup (2012) reported an average of 13.41% turnover in the Asia region, with Malaysia showing the highest figure, 16.40%, with no further age breakdown. This may be due to the fact that Malaysia has been experiencing rapid economic growth (The World Bank, 2015) but has a shortage of skilled workers (The Malaysian Times, 2015) and a low unemployment rate, ranked fifth lowest in the world (World Finance, 2014). Hence, employees do not stay long in the same organisation.

Organisations cannot run away from generational differences, especially in today's diverse workplace. Employers need to create a work environment that brings out the strengths of each cohort. For this to happen, employers need to identify strategies to draw in the full participation of each generation. They need to bear in mind that certain methods or programmes may only work for certain generations. Hence, this study contributes to the human resource literature and practical implications by examining the work motivators of each generation. Based on the in-depth interviews, several interesting findings emerged as each generation was found to be driven by different work motivators.

The informants were asked about factors that drove them to perform at work, followed by factors that they believed drove their supervisors who may come from a different generation. Supervisors were considered as they play an important role in team performance and participants would be expected to have frequent contact with their supervisors. As expected, informants had a preconceived notion that their supervisors (regardless of which generation they were from) were driven primarily by money. This may be partly due to the materialistic world that we are living in today. However, in actual fact, this was not the case. When informants were asked to state what drove them, money was not included in their list, with the exception of Generation X. For the Baby Boomers, this may have been due to their number, which compelled them to have to compete for jobs throughout their lives; therefore, they were a generation that was easy to please. One interviewee from the Baby Boomer generation said, "Having a job itself is a bonus." In addition, this generation believed that hard work would

help them get ahead of competition. They were believers in lifetime employment; this is in line with the findings of Ansoorian, Good and Samuelson (2003) and Elsdon and Lyer (1999). The attitude of Generation Y, on the other hand, may have partly been due to having both parents working, leading to economic stability in their formative years (Foreman, 2006).

Baby Boomers

As far as the Baby Boomers were concerned, they were generally self-motivated. They felt that it was their responsibility to complete given tasks. This is in agreement with what was perceived as being their driving force. They felt that work was an anchor, and this resulted in their showing a high degree of loyalty to work. Baby Boomers' supervisors can leverage on this characteristic when assigning work to Baby Boomers. Armed with experience, what Baby Boomers need is merely clear deadlines and objectives of the assigned tasks, which can be communicated through face-to-face discussion, their preferred work style (Yu & Miller, 2005).

Generation X

While the other two cohorts perceived that money was their sole motivator to perform, Generation X, while acknowledging money as an important motivator, were not solely driven by money. They also valued good teamwork, which the other two generations may not be familiar with. This means that for them to put in more effort, besides money, members of this generation also

looked for good teamwork. To illustrate further, this generation would remain with an organisation and put in their best effort if they had good teamwork. This lessened the probability of their looking outside the organisation for job fulfilment, which is important to business leaders as Generation X are in the prime of working age. On the flip side, if teamwork were not managed well, causing a team member to leave, others, especially Generation X employees, might follow suit. Generation X either works as a team or if they are unhappy, may leave as a team, which may have an impact on the organisation's ability to reach its goals. Thus, to retain and motivate Generation X workers, leaders need to demonstrate good leadership skills. For example, encouraging team participation in the decision-making process would be a good way to encourage teamwork. Another way to keep track of this would be to look for turnover trend in a section or department of an organisation. If the rate is high, it would be best to have an open discussion to investigate further or include teamwork in the generic key performance index (KPI) for every supervisor as this generation tends to engage in teamwork. In short, employee retention should be a factor in any supervisor's KPI. Involving supervisors in ensuring good teamwork is also in line with the paternalistic management style practised in Malaysia. It is a cultural value that expects the supervisor to take care of subordinates under his or her care.

When it comes to money, employers should ask Generation X workers directly

how much money or what salary they are looking for. This is in line with a study conducted by Cheah, Chong, Yeo and Pee (2015) that found compensation and incentives to be related to commitment among Generation X employees. For existing employees, employers should always look at the total compensation of each employee and explain it to him/her. If the figure is workable, the immediate supervisor, with Human Resource assistance, should map out a career plan for the employee based on his/her current salary while moving towards his/her ideal salary. The career plan must be a detailed and workable development plan, which includes the employee's current strength and weaknesses in line with the current job requirement. The development plan should chart a route for the employee that would move him/her up to the next level until the ideal salary is attained in a specific timeframe. Mapping out the development plan should include listing the requirements for the next level and state clearly to the employee how to move forward i.e. by filling the gaps in the employees' current performance dues to weaknesses so that he/she would be able to perform according to the requirements of the new job.

Generation Y

Generation Y are guided by passion as they see life as being the most important factor. So, catering for their needs requires knowing what their passions are. If they like the job, they will do it. If they do not, they will leave to search for something that can engage their interest. If they feel that their needs are not being met, with the support of a readily available and strong social network, many will join Generation X in embracing home-based entrepreneurship or self-employment as it will provide them with the challenges, opportunities and flexibility that energise them as well as give them the opportunity to explore their passion. Therefore, it is in their best interest to identify their passion during the job interview. It is important for supervisors to relate to the supervisee's passion related to the job and to encourage the supervisee to utilise his/her skills.

In addition to passion, gaining knowledge is also important to Generation Y. Bearing this in mind, organisations may consider making available programmes for the upgrading of skills such as MBA programmes, short courses and skills training. As this generation is highly comfortable with technology (Erickson, 2009), which is their second nature, organisations may consider having online-based training to reduce cost. Online assessment can also be carried out to ascertain the effectiveness of the programme itself. All these efforts are tax deductible for companies. As there are not many Generation Y supervisors as yet, the perceived driving force for the Generation Y supervisor was difficult to ascertain in this study. Nevertheless, both Baby Boomers and Generation X perceived that Generation Y in general were money- and passion-guided. As far as perception was concerned, money was still perceived to be the main driving force, followed by passion. The research findings are summarised in Table 2.

Table 2
Actual motivators and motivators as perceived by others

Generation	What Drives You to Perform?	What Others Believe Drives You?
Boomers	• It is my responsibilities. . Self-motivated	• Self-motivated • Money
Generation X	• Money • Good teamwork	• Money
Generation Y	• Passion • Knowledge	• Money • Passion (as perceived by Baby Boomers and Generation X in general)

CONCLUSION

For a long time, managers have had the misconception that money is the prime motivator of employees and have been using the same retention programme based on monetary rewards and incentives for all employees, only to find that employees are still leaving their organisations. However, there are other factors that employees look for at the workplace. Hence, the importance of this research, which attempted to identify specific motivators based on the generational inclination of workers in order to help employers plan more effectively for more efficient organisational performance. Based on the findings, it is suggested that organisations should apply different strategies when dealing with each generation. Considering the multigenerational composition of today's workforce, employers definitely need to consider the preferences and motivators of the different generations of workers in their organisations. Management techniques play an important role in commitment within the organisation (Okabe, 2005). Thus, it would be good for employers to have a short briefing with employees on the different motivators that each generation values. This awareness is necessary as people from different backgrounds view things differently. Employees should never assume that what is important to them is important to others as well as one man's trash is another man's treasure.

Not much needs to be done for Baby Boomers as they are largely self-motivated. They also feel that they are obliged to perform. Nevertheless, to boost their performance further, organisations could send Baby Boomer workers for training as they might feel that they do not qualify for training as they are approaching retirement age. One interviewee shared:

> "I am about to retire, my company would not want to care much. I have not been going for training for the past five years. My company is only sending those younger employees for training as they have longer time to spend in the organisation. I understand where my company is coming from. It would be a waste of money to send us out for training."

Generation X are concerned about money and good teamwork. Knowing that money is important is good, but employers also need a plan. Leaders should ask Generation X direct questions, especially their attitude and belief concerning money. They should find out what Generation X employees feel they should be earning. If they have a figure in mind, chart out a clear career plan for them on how to qualify for that salary with bonuses added and link the path to organisational goals. The career plan should make clear how the employee can reach that stage. Alternatively, if the employee is eligible for a commission, give him/her the flexibility to decide on the ratio for fixed and variable pay. If money is deemed important, employees will work towards it. This will not only boost the employee's performance but also the organisation's profit. The same question should also be taken seriously during the job interview. If the figure falls too far below the employee's expectations, he/she will not stay long in the organisation.

Based on the findings, Generation Y is driven by passion and knowledge, which is in line with the literature (Oblinger & Oblinger, 2005). They are the most educated group of workers among the three generation of workers. During the job interview, employers should ask them what their goals are. If they are hired, have them list down both their personal and professional goals. Guide/train their supervisors to work with them on achieving these goals. To have a healthy working relationship it is necessary to enable employees to fulfil both career and personal goals. When both sets of goals are fulfilled, employees are likely to stay longer as self-actualisation has been achieved.

As shown in Table 3, the largest group within the Malaysian labour force is Generation Y, followed by Generation X and lastly, the Baby Boomer generation. Employers can no longer ignore the reality of a multigenerational workforce. Statistics from the International Labour Organisation, findings from this research and the generational make-up of an organisation are indispensable data for formulating a management plan to establish and sustain a successful multigenerational organisation.

Although it may be rewarding for employees to get what they want, such short-term gratification may reduce their intrinsic interest in their work. Once the threshold is met, they may become distracted. Nevertheless, the bulk of research shows that individuals are given rewards believed to be what they desire in the hope that their interest in and commitment to work are engaged.

Though the research objectives were successfully addressed, one limitation of this research was that the majority of the informants were from the Klang Valley. While the location of the capital of Malaysia, which hosts many workers from all the different states of the country, the Klang Valley is a modern, urban centre, and research deriving its data solely from this area is likely to show urban bias. Residents of urban areas are likely to react to life differently from rural dwellers.

Considering the multigenerational composition of the future workforce of Malaysia, employers definitely need to consider the motivators of these generations (Lee, 2013). Any performance measurement system that seeks to be effective must include financial and non-financial measures (Mohamed, Hui, Rahman, & Aziz, 2014). As this research is statistically controlled for age and year, any differences found are truly generational differences. Future research could consider empirical investigation as this allows for a more valid comparison of what appeals to different generations and allows compilation of a more comprehensive list of possible motivators. Comparison across different cultures should also be carried out.

Table 3
Malaysian labour force by age/generation estimates

Age (5-year age bands)	Generation Estimates	2012	2013	2014	2015	2016
15-19	Gen Y	519	498	495	535	523
20-24	Gen Y	1,834	1,857	1,861	2,033	2,091
25-29	Gen Y	2,397	2,415	2,436	2,623	2,708
30-34	Gen Y	1,981	2,126	2,245	2,304	2,299
35-39	Some Gen Y/Gen X	1,613	1,678	1,738	1,781	1,815
40-44	Gen X	1,448	1,509	1,540	1,549	1,555
45-49	Gen X	1,286	1,343	1,362	1,374	1,378
50-54	Some Gen X/Baby Boomers	1,040	1,112	1,138	1,147	1,150
55-59	Baby Boomers	651	717	741	783	780
60-64	Baby Boomers	352	380	376	391	368
Total		13,120	13,635	13,932	14,518	14,668

Source: International Labour Organisation Statistics (2017)

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APPENDIX: INTERVIEW GUIDELINE

Objectives:
To identify actual motivators of each generation to develop strategies for performance enhancement.

Scope:
The youngest Malaysian informant was aged 16, the minimum legal age to enter the workforce in Malaysia.

Guidelines for Focus Group

Instruction for Interviewer:
There is no 'right' or 'wrong' answer to the questions. The interview seeks to record perception. Use the following questions as a guideline and circle those that apply.

Part A: It Is All About You.

1. What drives you to perform at work?

2. What drives your supervisor to perform at work (your perception)?

Part B: Your Background

1. Demographic information: Year of birth (Age)
   a. 1946-1964 (Age: 47-65)
   b. 1965 1980 (Age: 31-46)
   c. 1981-1995 (Age: 16-30)
2. Highest qualification attained
   a. Secondary school and below
   b. Pre-university level: STPM/A Levels Certificate
   c. Diploma/Advanced Diploma
   d. Degree/Professional qualification
   e. Postgraduate
3. Designation
   a. Assistant Manager and above
   b. Executive and Senior Executive
   c. Non-Executive

4. Tenure in organisation
   a. Less than one (1) year
   b. One (1) year to less than three (3) years
   c. Three (3) years to less than five (5) years
   d. Five (5) years to less than ten (10) years
   e. Ten (10) years and above

Part C: Background of Your Immediate Supervisor

1. Your supervisor's year of birth (Age)
   a. 1946-1964 (Age: 47-65)
   b. 1965-1980 (Age: 31-46)
   c. 1981-1995 (Age: 16-30)

Thank you!

The Effect of Self-Transcription and Expert Scaffolding on the Accuracy of Oral Production of EFL Learners

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ABSTRACT

This study investigates the effect of self-transcription and expert scaffolding on the accuracy of oral production of EFL learners. Thirty elementary level and six advanced level EFL learners from a private language institution in Sari, Iran, participated in this study. The elementary learners formed two experimental groups that were engaged in self-transcription (n=10) and self-transcription followed by expert scaffolding (n=10) and one control group (n=10). Another group of advanced learners (n=6) were invited to participate as the expert assistants. A picture description task was administered to all the elementary participants as their pre-test and post-test. Furthermore, their oral performance in all stages of the study was audio-recorded one at a time. Finally, the participants' oral performance in the pre-test and post-test was analysed based on the accuracy rate of five linguistic features (verb form, preposition, pronoun, subject-verb agreement and vocabulary) and error-free clauses. The analysis showed that both treatment types of self-transcription with or without scaffolding had significant effect on improving the accuracy of two linguistic features (preposition and verb form) and error-free clauses. It can be implied that self-transcribing an oral production and expert scaffolding can be conducive to noticing the gaps in some linguistic features, which under normal circumstances are hard to recall and notice. The findings of the study provide some pedagogical implications for employing these techniques in EFL contexts for improving the overall accuracy of oral production.

INTRODUCTION

Assigning students to working in pairs or small groups in the second language classroom is considered a beneficial teaching strategy. A great body of research shows that learners interacting in small groups or pairs use target language more in comparison with learners working individually or attending teacher-fronted classes (Storch, 2001, 2002; Wigglesworth & Storch, 2009). According to Goh (2017), there are some studies offering insight into how teachers can scaffold the learning of speaking skills in the classroom through activities such as task-repetition and pre-task planning. These tasks can promote learners' awareness of speech processes. She stated that scaffolding activities can help "learners in planning and organizing speech" and "strengthening oral communication abilities" (Goh, 2017, p. 248).

One such activity for speaking practice is self-transcription of oral output and self- and/or peer-editing of the transcripts. This technique is believed to attract the participants' attention to linguistic gaps in their oral production (Lynch, 2005). When learners speak on their own during a task, they rarely attend to all aspects of their language (Goh, 2017, p. 248). When self-transcribing their oral performance, they focus on their production and notice the possible gaps in their knowledge or performance. According to Stillwell et al. (2009), "student self-transcription can greatly enhance the power of tasks to promote language learning" (p. 445). They believe that this technique allows learners

to "re-examine their experience freed from the pressure of performing the task itself, so they can notice and reflect on the language used and encountered" (p. 445).

From a theoretical stance, according to Schmidt (2001), the emergence of new forms should be preceded by their being noticed in the input. The noticing hypothesis (Schmidt, 1990) claims that conscious awareness of grammar plays an important role in second language acquisition because it triggers certain cognitive processes such as searching for the new information or consolidating already existing knowledge (Swain, 1995). Considering this hypothesis, self-transcribing of the oral production can make learners consciously aware of the problematic areas of their language. Lynch (2005) argues that self-transcription can be a productive route to noticing, in which the learners reflect on the formal correctness and semantic precision of their own output.

Four important gaps can be identified in the previous literature. Firstly, very few studies seem to have been conducted on the effectiveness of self-transcription in the accuracy of oral production (Lynch, 2001, 2007; Mennim, 2003, 2012; Stillwell et al., 2009). The findings of some studies have shown that the interaction between pair members may have a positive effect on the accuracy of a few grammatical features. For instance, Goss, Yang-Hua and Lantolf (1994) compared the performance of students on some grammar judgement tasks when completed in pairs and individually. They found that there were some modest differences in favour of

dyads on some grammatical features such as referential pronouns. It is not clear what linguistic features are strengthened after the completion of a self-transcription task. Another issue is that pair work, as a form of scaffolding, has been initially embedded into the studies of self-transcription. In these studies, self-transcription was predominantly followed by peer and/or teacher editing of the transcripts; as a result, the participants relied on two different sources of feedback i.e. external feedback provided by the instructor or peer editor and internal feedback conducted by the learners themselves during the editing and self-evaluation of their transcribed oral output. The question was whether self-transcription, by itself and without any external feedback, can promote noticing and learning linguistic features. Finally, in the studies of self-transcription, the learners were paired with the similar proficiency-level ones to edit the transcripts. To improve collaborative skills and develop responsibility in social contexts, some researchers, for instance, Zangoei and Davoudi (2016) have suggested provision of scaffolding by higher-proficiency level learners to the lower-level ones. Thus, it might be interesting to examine the case with high-proficiency learners, that is, expert-novice learners editing the transcripts in collaboration.

To sum up, the purpose of the current study was to examine the effects of self-transcription and expert scaffolding on the accuracy of oral production of EFL learners in two types of treatment, that is: (a) self-transcription and editing of the transcript by the learners themselves; and (b) self-transcription followed by expert scaffolding during the editing phase of the transcripts.

THEORETICAL FRAMEWORK

One of the underlying theories of this study was Swain's (1985, 1995) output hypothesis. Swain claimed that learners need to actively engage in language production in order to promote their second-language proficiency. She argued that output can trigger certain cognitive processes that facilitate the acquisition of a second language. One of these processes is the 'noticing' or triggering function, which is defined as learners' awareness of the discrepancy between their own production and the target language. According to Swain (as cited in Valdebenito, 2015), the awareness of the gaps or holes in their linguistic knowledge facilitates the detection of errors and re-evaluation of their assumptions about the target language. This is closely linked to Schmidt's (1990) 'noticing hypothesis', which claims that the emergence of new forms should be preceded by their being noticed in the input. Schmidt (2001) argued that "noticing requires of the learner a conscious apprehension and awareness of input," and "while there is subliminal perception, there is no subliminal learning" (p. 26). The noticing hypothesis claims that conscious awareness (noticing) of grammar plays an important role in the process of acquisition. This kind of noticing is beneficial for second-language acquisition because it triggers certain cognitive processes such as searching for the new information or consolidating

already existing knowledge (Swain, 1995). Considering these hypotheses, it is motivating to examine how learners notice their linguistic gaps when they are struggling to describe a set of pictures and self-transcribe their oral performance.

Another theoretical concept underlying this study is scaffolding, which is understood as the assistance provided to the learner by the teacher or a more knowledgeable peer in order to move the learner into the zone of proximal development (Wood, Bruner, & Ross, 1976). The term scaffolding is one of the main concepts embedded in the sociocultural theory of mind (Vygotsky, 1978). Vygotsky proposed that cognitive development is an inherently social activity involving interaction between people. He argued that children acquire knowledge and gradually internalise it through interaction with people around them. In this regard, what has been learnt through interaction (social property) will transform into personal property of the child. In its original conception, sociocultural theory proposed that this kind of interaction is between an expert (e.g. parent, teacher) and a novice (child). The expert should carefully attune the assistance to suit the novice's need; in other words, the expert scaffolds the novice. For scaffolding to occur in the language learning process, students need to work collaboratively. Within the scope of second language research, there are some studies that have shown that such scaffolding can occur not only in teacher-learner interaction (Aljaafreh & Lantolf, 1994) but also in

peer-peer interaction, when learners work in small groups or pairs.

Apart from the pedagogical arguments of scaffolding discussed above, Schmidt's (2001) noticing hypothesis can also support the significance of this study. In other words, self-transcribing of an oral production may induce noticing the problems and removing them in the next performance. According to the sociocultural theory of learning, scaffolding can provide learners with exactly the support they need to move forward along their zone of proximal development (ZPDs) and internalise the information.

LITERATURE REVIEW

Some studies have closely investigated the nature of group and pair work in the L2 context. For example, Pica and Doughty (1985) compared teacher-fronted classes with learner-centred classes. They showed that the learners in groups or pairs engaged in negotiation of meaning such as clarification request, confirmation checks and repairs. These examples of modified interaction are considered as facilitators of second-language acquisition.

Long and Porter (1985) discussed the pedagogical arguments for group-work activities and expressed several reasons for employing them. They stated that group-work provides L2 learners with more opportunities to use and practise language. The next argument raised was that group work not only increases the amount of student talk, but also improves its quality as well. Wigglesworth and Storch

(2009) showed that learners working in pairs performed better on a task than those working on the same task individually. They concluded that learners are provided with more opportunities to pool their knowledge during joint activities.

Studies by Storch (2001, 2002) have shown evidence of 'collective scaffolding', a process by which learners pool their linguistic resources in order to solve the language problems they encounter. Donato (2004) investigated collaboration in three themes of community, language development and identity. Regarding the first theme he argued that working collaboratively, students would show greater control of the target language; therefore, they would work with each other as a collaborative community. Furthermore, he suggested that active participation of the learner is another consequence of collaborative working. Therefore, when working collaboratively, students will volunteer more frequently and participate more actively. Investigating the effect of collaboration on language development, he elaborated on the power of collaborative dialogue in developing more accurate language during the composing, noticing and recall procedures.

Some recent studies (Cooke, 2013; Lynch, 2001, 2007; Mennim, 2003, 2012; Stillwell et al., 2009) have supported the use of student transcription activities to assist students in reflecting on their language, noticing the gaps in their knowledge and making their output more sophisticated and comprehensible. Lynch (2001) investigated the impact of self-transcription on the oral

skills of learners. In an after-class session, the participants were asked to listen to an extract of the audio sound-track of their performance and to transcribe it. They worked together and negotiated when to stop or replay the tape. After each member of the pair produced two transcripts, they were asked to agree on a final version. If making any changes, they were asked to review, revise and edit the final version. In the next step, one copy of their transcripts were reviewed by the teacher, who changed any linguistically incorrect point, and finally the teacher gave them his own reviewed transcript and made them compare it with their version. Analysing the extracts of the students' production, Lynch concluded that listening and transcribing the oral production provided the learners with the opportunity for explicit feedback, which is believed to be a requirement for formal language learning. Furthermore, he suggested that this activity made students notice their linguistic gaps and engage in reflective self-correction. He also mentioned that although the students noticed many errors themselves, the teacher also provided them with post-task feedback, particularly in the area of vocabulary.

Mennim (2003) investigated reactive focus on form by focussing his students' attention on their own output. The students were encouraged to reflect on their oral output by tape-recording and transcribing a rehearsal of their presentation. They scrutinised and corrected the transcript before giving it to the teacher, who provided further feedback on the points that they had not noticed. The study showed the

effect of this treatment by comparing the transcripts of the students during rehearsal with a transcript of their oral presentation two weeks later. Findings of the study demonstrated that they could recall many of the corrected forms and reformulations; the final presentation showed improvements in pronunciation and grammar and in the organisation of content.

In his next study, Lynch (2007) compared teacher's transcripts of learners' performance on paired speaking tasks with the transcripts provided by the learners themselves on their own speaking performance. He reported that learners who had been active producers of their own transcripts achieved a higher rate of accuracy in producing English forms than did the learners who had been passive users of the teacher's transcribed extracts.

Stillwell et al. (2009) carried out their study with 20 freshmen students. The participants made posters based on the main points of five film genres and then summarised and presented them in response to questions asked by their classmates. The students worked in pairs and switched roles to discuss each other's posters while their conversations were audio recorded. Next, the three-minute conversation of each member was listened to and transcribed by both members of the pair. The pair then worked jointly to identify and correct mistakes in their spoken language. Next, the teacher provided feedback by correcting the mistakes in the transcripts of the students. The analysis showed that both the teacher's and the students' corrections were predominantly focused on

grammatical features, although the teacher gave greater focus to grammatical features (68%) than the students (48%). Stillwell et al. (2009) concluded that student self-transcription seemed to provide valuable learning opportunities.

Cooke (2013) examined learners' perceived input and noticing weaknesses among university students over a ten-week period. The students' conversations were recorded when they were discussing a series of topics in groups of five for six minutes. They were required to self-transcribe and reflect upon their spoken performance by evaluating their speaking skills. The results of the study indicated that transcription and reflective practice could support the development of noticing, a crucial element in L2 learning.

Mennim (2012) investigated problem-solving efforts of higher-level learners during negotiation of language form in the context of a self-transcription exercise. The students first transcribed the recordings of their own presentation made in the English classroom. This task was then followed by a discussion session in which the learners were required to inspect their own transcripts in groups and attempt to find and correct their language problems through collaboration. The excerpts of their negotiations and discussion demonstrated serious and active involvement in the exercise. The exercise helped learners recognise various internal and external sources of information on L2 form. They concluded that self-transcription can be regarded as a beneficial way of generating knowledge-building discussion

about language that stimulates learners to think about their own language use to tackle their language problems.

Afsharrad and Sadeghi (2014) assigned a transcription task to beginning learners to investigate its effect on their listening ability at phoneme level. They asked students to transcribe a listening section in their course book after it was played two to three times. The students' transcriptions were then checked by themselves and also their classmates as they were read in class. The findings revealed that transcribing could be considered an aural input enhancement device that has a significant effect on the learners' phonemic perception. They concluded that transcribing attracted learners' attention to incoming aural stimuli and raised their awareness of phonological features of English.

Skeates and Murphy (2015) investigated the effect of self-transcription tasks on the oral presentations of the learners. In their study, the students were asked to first video-record their class presentations and then transcribe their own presentations. After transcribing their own oral production, they were asked to reflect on their transcripts in order to find their strengths, weaknesses and the areas that needed improvement. In the final task, the students were made to assess themselves by self-made scoring rubrics. At the end of the course, the learners' opinions on the tasks were elicited in the form of a semi-structured interview. The students unanimously reported that recording their presentations was beneficial. However, their views on self-transcription

were mixed. Some students believed that it helped them focus their attention on their strength, weakness and the areas of future improvement while others considered it a troublesome and time-consuming task. Regarding their self-made scoring rubrics, they mostly felt it was effective. The results of the study suggested that students generally favoured and benefitted from all of the tasks related to self-transcription, but they needed further explicit instruction on how to use their transcripts.

Likewise, Valdebenito (2015) investigated the effect of self-transcribing on developing the metacognitive skill of noticing the gap. In his study, the students were provided with the audio-file of their oral performance in the speaking part of a diagnostic test. The learners were asked to transcribe a three-minute segment of their speech, highlight all the errors they specified, identify the kind of error (lexical, grammatical, phonological etc.) and then send the annotated transcript to the teacher via email. Then, the students' opinions and perceptions of the potential advantages of self-transcribing tasks were elicited through a questionnaire. Findings of the study demonstrated a low rate of self-corrections. The researcher justified this result by indicating the diagnostic nature of the test. That is, since the students' linguistic performance was not being graded, they did not feel any pressure to self-monitor. Moreover, another unexpected result was that the participants only noticed one out of 4 errors (25%) in a transcript of a three-minute recording. The researcher related this

rather disappointing result to the inadequate treatment sessions and lack of pair work in comparison to some similar studies conducted on this area (e.g. Lynch 2001).

Considering the stated problems in the introductory section and taking the gaps into account, the present study was carried out to explore the effectiveness of self-transcription of oral production with or without expert scaffolding in improving oral accuracy of elementary EFL learners. Two research questions were investigated in this study, as given below.

1. Does expert scaffolding of a self-transcribed oral production have any effect on the accuracy of the oral production of EFL learners?

2. Does self-transcription and self-editing of their own oral production have any effect on the accuracy of the oral production of EFL learners?

METHODS

Participants

The participants of this study were 36 EFL learners who were studying English in a private language institution in Sari, Iran. The selection of the participants was based on convenience sampling. They included 30 elementary learners within the age range of 11 to 16 and six advanced learners within the age range of 18 to 23. They were all female students and their proficiency level was based on a placement test developed and administered by the institution at the beginning of the term. It is to be mentioned

that the data source for the analysis in this study was based on the oral performance of the elementary learners (n=30) and no part of the data belonged to the advanced group. The advanced learners only participated as expert assistants to scaffold the elementary learners during the editing phase of their self-transcriptions.

Before starting the study, the researchers mentioned that participation in the study was completely voluntary and no one was compelled to take part. In addition, the participants and their parents were also assured of the anonymity of their identity, privacy and confidentiality of the collected data in that the recorded files would be kept secret.

Research Design

The study utilised a pre-test/post-test quasi-experimental design with comparison groups selected based on convenience sampling. It involved two experimental groups and one control group. A mixed method design was employed in order to collect and analyse both quantitative and qualitative data in the research process. The reason for mixing is that neither quantitative nor quantitative methods are adequate to address research problems or answer research questions (Tashakkori & Teddlie, 2003). Therefore, based on the overall purpose of the study and the identified research questions, this study used a mixed method in order to have a better understanding of the results. The design of the study is presented in Table 1.

Table 1
Design of the study

Group	Tasks & Tests				
	Pre-test	Treatment 1 (PDT)	Treatment 2 (ST)	Treatment 3 (SC)	Post-test
Scaffolding	*	*	*	*	*
Self-transcription	*	*	*	____	*
Control	*	____	____	____	*

PDT=Picture description task; ST=Self-transcription; SC=Scaffolding by experts; *= Participants took part

All elementary participants (n=30) attended a training session prior to the study. The scaffolding group attended a pre-test, three treatment sessions and a post-test. The self-transcription group was administered a pre-test and a post-test but attended two treatment sessions. The study further involved tape-recording all elementary participants during pre-test and post-test sessions and transcribing the recorded speech by the researchers. Self-transcription was conducted during the second treatment session by the elementary participants in the two experimental groups, which involved transcribing their own oral production for the picture description task. The control group took part in the two testing sessions. Each group consisted of 10 participants, data pertaining to whom were collected individually i.e. one at a time. Therefore, as Table 1 shows, there were 30 separate sessions for pre-testing, 50 individual sessions for the treatments of the two experimental groups, and 30 separate sessions for the post-testing. Therefore, in total, the study took place in 110 sessions of about 5 to 15 min each.

Procedure

All elementary participants were provided with a training session on how to tell a story based on a set of pictures. Next, they were randomly assigned into two experimental groups of self-transcription plus scaffolding (n=10) and self-transcription (n=10) and one control group (n=10). The two experimental groups were also trained on how to transcribe their recorded voices. In addition to the elementary participants, there was another group of advanced learners (n=6) who took part only in the third treatment session (See Table 1). They were trained on how to scaffold their elementary peers by modelling and practising. Before the start of the main study, the students arranged their time with one of the researchers and came to the institution one hour earlier than their usual class time. For the pre-test session, all elementary participants came to the allocated room in the institution at a specified time and were asked to tell stories based on two picture stories taken from Chabot (2006). Their presentations were audio-recorded individually in a quiet room one at a time. In the first treatment session,

the two experimental groups were asked to tell two stories based on a picture description task (Chabot, 2006); their production was also audio-recorded one at a time. In the second treatment session, each student in the self-transcription (ST) and scaffolding (SC) groups received her relevant recorded file via the Bluetooth device to listen to her own presentation and transcribe it carefully. Next, they were asked to individually review their own transcriptions to find out if there were any problems in their own production. In the third treatment session, the students in the scaffolding group (n=10) were assigned with expert participants to edit their transcriptions. Following Aljaafreh and Lantolf (1994), the regulatory scale of the ZPD was provided for the experts on how scaffolding should be conducted in two steps of modelling and practice (see also Abadikhah & Valipour (2014) for a full description of scaffolding). The participants were allowed to use the Persian language during their interaction since it was assumed that native language works better in order to lower possible tension and also to remove any misunderstanding between the learners in their pairs (Swain & Lapkin, 2000).

Data Analysis

Since the study sample was small and several tests of mean comparison were expected to be conducted, the normal distribution of the scores of each group in any treatment was assured by conducting the Kolmogorov-Smirnov test. To answer the questions, first, all of the recorded files of students' oral production in each group

and in each stage (pre-test and post-test) were fully transcribed. Then the accuracy percentages of the students' oral production in the five target linguistic features (verb form, preposition, pronoun, subject-verb agreement, vocabulary) and error-free clauses were calculated. The rationale for considering these linguistic features was that they were among the most inaccurate features frequently observed in the students' productions during the training session. In this study, accuracy is defined as the ability to produce grammatically correct sentences (Richards & Schmidt, 2002). Therefore, all obligatory occasions for the use of targeted grammatical features were identified in the speech of the participants and then the correct usage for each of them was quantified. Following previous studies, producing grammatically correct clauses is considered the accuracy index (Nassaji & Swain, 2000).

For measuring accuracy, the proportions of the correct items to the total obligatory occasions for each feature were calculated and their percentages were tabulated. To examine the reliability of rating and scoring for each feature, all the transcripts of the students' oral production were re-scored by the researchers three months after the initial scoring. The transcripts were also scored twice by both researchers. The intra-rater and inter-rater reliability indices were 96.8% and 87.9%, respectively. It should be mentioned that in measuring the accuracy of verb form, two features of verb tense and aspect were taken into account. Furthermore, in calculating the total error-

free clauses, the grammatically correct clauses were calculated and correct phrases were not taken into account. For the analysis of data, SPSS software was employed. To answer the research questions, the accuracy percentage of each item produced during the pre-test and post-test sessions were compared across the groups.

RESULTS

As it was explained in the methodology section, during the pre-test, two picture description tasks were employed to obtain reliable output from the learners; each task consisted of six separate pictures that were sequentially related to each other. The students were asked to tell a story based on the pictures. Then, the self-transcriptions of their tape-recorded speech were analysed in terms of the accuracy of the target linguistic features and error-free clauses. Table 2 displays the mean accuracy percentage of each feature in the pre-test session for the three groups of participants.

Table 2
Mean accuracy percentage of the features in pre-test

Groups	S-V Agreement	Preposition	Pronoun	Verb form	Vocabulary	Error- Free Clauses
SC	54.86	68.78	86.68	54.74	93.55	29.85
ST	51.72	67.21	79.56	43.80	88.91	39.62
C	46.98	69.76	76.32	40.71	92	37.63

SC=Scaffolding plus self-transcription; ST=Self-transcription; C=Control

To check the homogeneity of the three groups at the start of the sessions, the accuracy percentage of the features and error free-clauses produced during the pre-test were compared across the groups. Based on the results of a one-way ANOVA test, it was found that there was no significant or meaningful difference among the groups since the p value (0.704) was higher than the set significance level ($p<0.05$). Therefore, it could be inferred that the groups were homogenous in terms of accuracy of oral performance prior to the treatments.

In the first treatment session, both experimental groups were asked to tell two stories based on two sets of pictures different from those used in the pre-test session. In the second treatment session, the participants of both groups were asked to listen to their own oral production (audio-recorded by the researchers), transcribe it and then identify any possible mistake. In the third treatment session, only the participants of the scaffolding group participated and were scaffolded by an expert. According to Vygotsky (1978), in this kind of interaction, the expert assists the novice to internalise the learning and reach a higher level of development.

In order to administer the post-test, two weeks after the implementation of the intended treatments, the participants of

the three groups were unexpectedly asked to do the same task that they had already described in the pre-test session. Once again, their oral productions were audio-recorded and transcribed by the researchers. Again, the accuracy values of the five specified features and error-free clauses were obtained and their percentages were calculated. Table

3 presents the mean accuracy percentage of each feature produced by the three study groups in their post-test session. As stated before, the aim of the first research question was to investigate the effect of expert scaffolding on the oral production of learners in terms of their accuracy percentage.

Table 3
Mean accuracy percentage of the features in post-test

Groups	S-V Agreement	Preposition	Pronoun	Verb form	Vocabulary	Error-Free Clauses
Scaffolding	62.13	70.34	86.63	60.25	91.47	50.19
Self-transcription	53.40	69.97	79.87	48.26	88.86	41.93
Control	49.21	69.20	76.84	41.36	93.02	37.00

In order to see if treatment would influence the students' oral production, paired sample analysis for the pre- and post-test of each group of participants was conducted.

Table 4 displays the results of the paired samples t-test on all linguistic features of the scaffolding group from the pre-test to the post-test.

Table 4
Paired samples t-test comparing the accuracy of linguistic features from pre- to post-test of scaffolding group

Features	Paired Differences		t	d.f.	Sig.
	Mean	SD			
S-V Agreement	7.27	13.14	1.75	9	0.11
Preposition	1.56	1.55	3.19	9	0.01*
Pronoun	0.05	6.92	-0.02	9	0.98
Verb form	5.51	11.96	1.46	9	0.18
Vocabulary	2.08	8.11	-0.81	9	0.44
Error-Free Clauses	20.34	17.57	3.66	9	0.01*

Based on the results, the p values were significant (p<0.05) for the preposition and error-free clauses but not for the rest of the features (Subject-Verb Agreement, Pronoun, Verb Form and Vocabulary). This means that the treatment was effective in improving the accuracy of prepositions in this group.

A similar paired samples analysis was conducted on the post-test result of the control group. Table 5 presents the summary of this analysis.

Table 5
Paired sample t-test comparing the accuracy of linguistic features from pre- to post-test of control group

Features	Paired Differences		t	d.f.	Sig.
	Mean	SD			
S-V Agreement	-2.22	6.03	-1.16	9	0.27
Preposition	0.55	2.47	0.71	9	0.49
Pronoun	-0.51	1.80	-0.90	9	0.38
Verb form	-0.65	3.05	0.67	9	0.51
Vocabulary	-1.02	2.13	1.51	9	0.16
Error-Free Clauses	0.62	3.66	-0.54	9	0.60

Considering the statistical results of the scaffolding and control groups presented in Tables 4 and 5, it can be inferred that the related treatment (expert scaffolding plus self-transcription) had a positive effect on the accuracy of the learners' use of preposition and error-free clauses.

The aim of the second research question was to find out whether self-transcribing of oral production by itself had any effect on the accuracy of oral performance of the learners. To this end, another paired samples analysis on the pre- and post-test scores of this group was conducted. Table 6 displays the summary of the findings.

Table 6
Paired samples t-test comparing the accuracy of linguistic features from pre- to post-test of self-transcription group

Features	Paired Differences		t	d.f.	Sig.
	Mean	SD			
S-V Agreement	1.68	3.19	1.66	9	0.13
Preposition	2.77	4.56	1.92	9	0.09
Pronoun	0.31	3.03	0.32	9	0.75
Verb form	4.46	5.16	2.73	9	0.02*
Vocabulary	-0.06	3.34	-0.05	9	0.96
Error-Free Clauses	2.31	2.66	2.74	9	0.02*

Although the mean differences of the majority of linguistic features in the post-test session increased compared to the pre-test session, the p value was significant for the verb form and total error-free clauses (p<0.05).Therefore, it can be suggested that self-transcription by itself is effective for improving the accuracy rate of verb form and error-free clauses of learners.

The next analysis intends to specify if the treatment type (self-transcribing or scaffolding plus self-transcribing) had any effect on the accuracy of learners' oral performance. Focussing on this goal, again descriptive statistics, presented in Table 7, are used to compare the post-test of the two groups.

Table 7
Descriptive statistics of ST and SC for post-test

Linguistic Features	Groups	N	Mean	Std. Deviation
S-V Agreement	SC	10	62.13	32.93
	ST	10	53.41	26.67
Preposition	SC	10	70.34	18.68
	ST	10	69.98	16.07
Pronoun	SC	10	86.64	17.34
	ST	10	79.87	15.72
Verb form	SC	10	60.26	17.67
	ST	10	48.27	25.97
Vocabulary	SC	10	91.48	8.10
	ST	10	88.86	10.17
Error-Free Clauses	SC	10	50.20	31.09
	ST	10	41.93	26.17

SC=Scaffolding plus self-transcription; ST=Self-transcription; N=Number of participants

Table 8 illustrates the outcome of the analysis applied to the data. Comparing the two groups' mean accuracy rates, using an independent samples t-test in the post-test session, it can be seen that there was no significant difference between the two groups in their post-test accuracy level since the p values for all the features were higher than 0.05.

Table 8
Independent samples t-test analysis comparing post-test scores of ST and SC groups

Variable	t	df	Sig. (2-tailed)
S-V Agreement	0.65	18	0.52
Preposition	0.05	18	0.96
Pronoun	0.91	18	0.37
Verb form	1.21	18	0.24
Vocabulary	0.64	18	0.53
Error-Free Clauses	0.64	18	0.53

This means that the two treatment types were similarly effective as the two experimental groups did not differ in their performance during the post-test session. The results of a one-way ANOVA test on the post-test scores of the three groups (ST, SC and C) also confirmed this finding (df=2; F=1.833; p=0.163).

DISCUSSION AND CONCLUSION

This study examined whether self-transcription with or without expert scaffolding would affect the accuracy of some linguistic features in oral production.

For this purpose, three groups of EFL elementary learners i.e. self-transcription followed by expert-scaffolding, self-transcription and a control were compared. Drawing upon this comparison, the effectiveness of self-transcription with or without scaffolding in producing accurate linguistic features and error-free clauses was then empirically compared and supported in the learners' spoken output produced during the post-test.

The analysis of data concerning the first research question, which examined the benefits of scaffolding following self-transcription, indicated that the treatment had positive effects on the accuracy index of error-free clauses and use of prepositions. Regarding the impact of self-transcription, the findings of the present study were in conformity with those of Cooke (2013) and Stillwell et al. (2009), which regarded self-transcription with peer-scaffolding as a beneficial technique that leads students to reflect on their performance, notice their linguistic gaps, correct possible mistakes and produce more accurate language. Our finding was also compatible with Mennim's (2003, 2012) studies, which found that self-transcription exercise provided the learners with the opportunity to reflect on their language performance and consequently, tackle their linguistic problems through knowledge-building dialogues in groups.

As stated earlier, many eminent scholars like Long and Porter (1985), Nelson and Murphy (1993), and Storch (1999, 2001, 2002) have acknowledged the significance of pair work in classrooms. Although foreign language learners may prefer teacher-fronted activities, teachers should create more opportunities for students to work collaboratively in pairs. In this study, the expert-novice pattern seemed to work effectively in improving production of error-free clauses and prepositions. Therefore, by employing this pattern, teachers can assign higher- and lower-proficiency students to work together as expert and novice pairs. Furthermore, since all learners do not make similar improvements for the same activity, and in most cases, only higher-level proficiency learners are aware of the changes they have made, scaffolding byf the expert can induce noticing and create an opportunity for lower-proficiency learners (novices) to be informed of the problematic areas in their use of language.

The results obtained from investigating the second research question, which explored the effect of self-transcription on oral accuracy, indicated that the participants improved in the accuracy index of error-free clauses and verb form from pre-test to post-test. This finding was consistent with the findings of Lynch (2007), who investigated the impact of self-transcribing and teacher transcribing of students' own speaking performance on the students' production. He concluded that participants in the self-transcription group achieved a higher rate of accuracy in producing English forms than the group that had been passive users of the teacher's transcribed extracts.

The results offer some theoretical and pedagogical implications to the study of foreign languages. According to Schmidt's

noticing hypothesis (1990), conscious awareness (or noticing) of grammar plays an important role in the process of L2 acquisition. In the current study, self-transcribing was used as a technique through which the learners reflected upon their performance and stimulated noticing of the existing gaps or holes in their linguistic knowledge. The participants received no external feedback from the teacher or peer. However, they made significant improvement on two features in the post-test. Therefore, it seems that self-transcription without external feedback can provide an opportunity for students to capture and analyse their own speech and reflect on their language use.

The results also indicated no significant difference between the two experimental groups. This means that the two treatments were equally effective in improving accuracy of error-free clauses. On the other hand, we observed that the two treatments positively influenced two different linguistic features of verb form (self-transcription) and prepositions (self-transcription plus scaffolding). The results confirm the findings of previous studies (e.g. Storch, 1999), suggesting that not all grammatical features benefit from the same type of classroom task or treatment. This result also supports the findings of a study by Goss, Yang-Hua and Lantolf (1994) that investigated the performance of students on several grammatical judgement tasks carried out in pairs and individually. They found that dyads performed better in some grammatical features such as referential pronouns but not in all the features.

Similarly, this study shows that self-transcribing resulted in improvement of the accuracy rate of some linguistic features (verb form and error-free clauses) in participants' oral production. However, contrary to this result, which accentuates the effectiveness of self-transcribing, studies by Skeates and Murphy (2015) and Valdebenito (2015) found the opposite. In Skeates and Murphy's (2015) study, mixed views (both positive and negative) regarding the effect of self-transcription were revealed. However, Valdebenito (2015) reported on the low rate of self-correction through self-transcribing, which might have been due to the lack of pair work during the correction phase. Since this limitation is addressed in the present study, in which the students worked in pairs during the editing session and concluded with the effectiveness of self-transcription, the current findings seem to be accurate.

Another pedagogical implication of the findings is that self-transcribing and editing activities are found to generate natural language-related episodes where learners discuss the accuracy of their output. Therefore, the task of recording and transcribing their voice can be carried out by the learners themselves in order to have a better understanding of their problematic areas.

Nonetheless, the current study has some limitations. Since the study involved three groups of participants who were individually recorded and required to attend several

sessions (training, pre-test, treatments and post-test), a small sample size was found to be more manageable. Further research can be conducted on a larger sample with more treatment sessions in order to generalise the findings to a larger population and obtain more conclusive results. Also, future studies can investigate more linguistic features to have a thorough analysis and results. Researchers can replicate this study investigating the effects of expert scaffolding and self-transcribing on the fluency and complexity of learners' oral production. Finally, continued and expanded research on a longitudinal basis with subsequent recordings and transcriptions will provide more in-depth information on whether all these weaknesses in oral production are remedied or not.

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Recent Challenges for the Enforcement of Wildlife Laws in East Malaysia

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ABSTRACT

Law enforcement is one of the weakest links in wildlife conservation. This paper analyses the main challenges facing wildlife law enforcement in East Malaysia and identifies the enforcement strategy used by wildlife officers in the region. To these ends, a questionnaire was distributed to the wildlife officers. The study found that the respondents tended towards deterrence strategy in enforcing the laws which focuses on detecting and punishing violations. The study also revealed that the primary challenge facing the wildlife enforcement officers was lack of institutional capacity. This was reflected by problems related to inadequate equipment, facilities, limited manpower and lack of skills. Other major challenges highlighted by the respondents were lack of cooperation from the public and other enforcement agencies, lack of political will and threats from the regulated parties. The findings of the study contribute to a greater understanding of the main enforcement strategy used by wildlife officers in East Malaysia and highlight challenges they encountered in undertaking their duties. These insights provide useful information into developing better informed capacity-building programme for the wildlife officers and for decision-makers at state and federal level in determining allocation or other provision for the wildlife authorities.

Keywords: Challenges, East Malaysia, enforcement, laws, wildlife

INTRODUCTION

In the wake of wildlife crimes which are widely committed by organised criminal gangs across national boundaries (Cook, Roberts & Lowther, 2002), enforcement is essential to ensure compliance with

conservation legislation (Holmern, Muya, & Røskaft, 2007; Keane, Jones, Edward-Jones & Minner-Gulland, 2008). However, ineffective enforcement has remained one of the main obstacles to conservation laws (Kaaria & Muchiri, 2011; Sharma 2003). According to Crow, Shelley, and Stretesky (2013), most wildlife crimes can be classified into four areas, namely improper permitting, illegal taking, illegal possession of wildlife and by-products and conservation-related offences. Wildlife crime can occur at the micro-level such as subsistence poaching and individual acts of cruelty, meso-level like organised illegal hunts and domestic trade in protected species, as well as macro-level, notably import and export of endangered species (Wellsmith, 2011).

The enforcement cycle starts from the committing of an offence by a person, through its detection, the taking of enforcement action, possible prosecution and the consequent imposition of sanctions, to the final outcome of achieving compliance (Benson et al., 2006). The 'deterrence' strategy is the most stringent approach of enforcement. It emphasises a confrontational style of enforcement and the sanctioning of rule-breaking behaviour. The assumption under this approach is rational people respond to incentives, and thus, "if offenders are detected with sufficient frequency and punished with sufficient severity, then they, and others, will be deterred from future violations" (Cunningham, 2010, p. 121). In contrast, a compliance strategy emphasises cooperation rather than confrontation and

conciliation rather than coercion to avoid any conflict with the regulated parties. It assumes that the majority are willing to comply voluntarily. These two enforcement strategies are two polar extremes that are unlikely to be found in their pure form.

Other approaches occur in between the two polar. One of these approaches is called responsive regulation, the approach which is a combination of the two extreme approaches, whereby regulators respond based on the responses of regulated parties. For example, regulators may first give advice upon detecting an offence but if the regulated party does not comply and continue committing violations, progressively punitive and deterrence oriented strategies will be taken. While literature have theorised several other regulatory enforcement approaches (for example really responsive regulation by Baldwin & Black, 2007, pp. 59-94), which also highlighted a few other approaches), this study will focus on the three approaches described earlier as they are the most commonly applied by many enforcement agencies. Previous studies on regulatory enforcement have addressed general topics related to environmental law enforcement against industries (Fairman & Yapp, 2005; Gunningham, Kagan, & Thornton, 2004; Thornton, Gunningham, & Kagan, 2005), but not many have addressed enforcement by wildlife agencies, which is usually enforced against small business and individuals with different motivations. There is also not much literature that looks at the issue in the context of Asian developing countries. In addition,

previous studies have not considered the appropriateness of enforcement strategy in light of the challenges faced by wildlife agencies in practice.

In the face of the importance ensuring effective enforcement, it is particularly intriguing to look at the strategy used by wildlife officers to enforce laws, and see whether such strategy is appropriate when considered against the difficulties faced by the officers in practice. In Malaysia, wildlife officers, rather than the police have a prominent enforcement role, including investigation and prosecution of wildlife crimes (Ariffin & Mustafa, 2013). Several studies related to conservation have made discouraging conclusion on wildlife enforcement in the country. Sarawak has been reported to have the highest sale of bear products at local shops in the country, the sources of which were claimed to be locally hunted (Krishnasamy & Shepherd, 2014). Another study on the conservation status and trade of the Asian Box Turtle (*Cuora amboinensis*) in Malaysia revealed that there was lax law enforcement and unequal enforcement efforts throughout the country (Schoppe, 2008). Similar conclusion on the lack of enforcement at all levels was made by another study on pangolin capture and trade in Malaysia (Chin & Pantel, 2008; Pantel & Awang, 2010). The current study looks at the enforcement of wildlife legislation in East Malaysia. The study focuses on the enforcement of the International Trade in Endangered Species Act 2008 (Act 686) (henceforth, INTESA) as well as Sabah Wildlife Conservation

Enactment 1997 and Sarawak Wildlife Protection Ordinance 1998. Results of the study provide information on wildlife law enforcement strategy used by agencies and challenges faced in undertaking enforcement tasks. The results are useful to reflect upon the appropriateness of the existing enforcement strategy and how it can be improved.

INTESA is a federal law that aims to implement Malaysia's obligations under the International Convention on International Trade in Endangered Species of Wild Fauna and Flora. It regulates import and export of certain species listed in its schedules through permitting system. These listed species are endangered or potentially threatened by commercial activities if not controlled. Possession of illegally imported or exported wildlife species or specimen is also an offence under INTESA. The Act provides stringent penalties with fine not exceeding MYR100,000 for each animal or plant specimen illegally imported or exported or imprisonment for a term not exceeding seven years or both. Meanwhile, Sabah Wildlife Conservation Enactment 1997 and Sarawak Wildlife Protection Ordinance 1998 provide for conservation and management of wildlife and their habitats in Sabah and Sarawak respectively. Both state laws categorise wildlife as protected species or totally protected species with stricter controls given to the latter category. Certain dealings in wildlife including hunting of animals, collection of plants and their utilisation and sale require permit or license. All the three legislations

provide enforcement officers with police-like powers in order to do investigation and enforce the laws including power of arrest, search and seizure. Under the laws, enforcement officers may also conduct prosecution, with written consent of the Public Prosecutor.

As one of the mega diverse countries in the world, the wild flora and fauna diversity in Malaysia is not absolutely known but is nonetheless exceptionally rich. Wildlife species of East Malaysia are generally richer than that of Peninsular Malaysia. There are approximately 221 recorded species of non-marine mammals in East Malaysia (Davison & Akbar, 2007). It is further estimated that the region has 742 species of birds, 242 amphibian and 567 reptile species (Ministry of Natural Resources and Environment, 2009). Both Sabah and Sarawak also have an estimated 12,000 species of vascular plants. The iconic Mount Kinabalu of Sabah alone has over 5000 plant species; 40% of these are endemic (Ministry of Natural Resources and Environment, 2014).

States in Peninsular Malaysia have agreed to federalise wildlife management and protection through the Department of Wildlife and National Parks under the Ministry of Natural Resources and the Environment. Meanwhile, Sabah and Sarawak have their own agencies under the respective state governments to enforce different set of laws to conserve wildlife in the two states. The Forest Department of Sarawak (SFD) is responsible for conservation of wildlife and forest in the state. In response to shortage of manpower

in the SFD, Sarawak Forestry Corporation (SFC) was established in 1995 to help with enforcement (Forest Department Sarawak, 2012a). Currently the SFD is the license issuing agency for wildlife exploitation-related activities including hunting, trading, possession and commercial farming. Sabah Wildlife Department is the main authority that manages wildlife species and protected areas as well as enforcement of the relevant laws including INTESA and Sabah Wildlife Conservation Enactment 1997. The department is also responsible in managing and issuing license, permits and certificates in ensuring sustainable use of wildlife resources in Sabah.

In 2013, SFD recorded 48 cases which were compounded and 13 cases were filed in court for all offences under the 13 ordinances and rules related to wildlife and forestry enforced by the department. It was stated that seven cases were investigated under the Sarawak Wildlife Protection Ordinance 1998 but there is no report on how many of these were prosecuted (Forest Department Sarawak, 2014). Compound is a form of civil fine imposed on a person who commits an offence under the laws by a government agency. In 2012, SFD reported that 75 offences were compounded and only one case was filed in court. Besides, seven cases were investigated under the Sarawak 1998 Ordinance (Forest Department Sarawak, 2013). In 2011, SFD recorded 45 cases of compound and zero prosecution though the year witnessed a total of 121 wildlife cases which were investigated under the Sarawak 1998 Ordinance alone (Forest Department

Sarawak, 2012). It can be seen that the number of prosecution in Sarawak is much lower compared to the number of cases compounded. In Sabah, there have been reports of arrests and charges in the daily news but accessible statistics on wildlife crimes or successful prosecution in the state are unobtainable.

MATERIALS AND METHODS

The study was conducted in East Malaysia comprising Sabah and Sarawak, which occupy the northern Borneo island. Environmental and wildlife issues are important to local residents of Sabah and Sarawak as well as to those who visit the region each year for the sole purpose of enjoying the states' vast natural resources. A questionnaire survey which consisted of 45 items and divided into three parts was developed. Some of the items were phrased in the reverse to avoid respondents' tendency to respond in an indiscriminately positive way. The first part of the questionnaire was designed to elicit respondents' demographic information. The second part attempted to find out about the respondents' orientation towards enforcement strategy. The final part aimed to extract information pertaining to enforcement challenges encountered by the respondents. The survey result was analysed using descriptive analysis. An open-ended question, "What are other challenges facing your agency in enforcing wildlife legislation?", was included to give respondents the opportunity to identify other challenges that were not included by the Likert items.

The survey was distributed to wildlife enforcement officers of Sabah Wildlife Department and Sarawak Forestry Department. Using a convenience sampling that depends on availability of officers during pre-arranged field visits, a total of 48 respondents took part in the survey - 22 were from Sabah and 26 from Sarawak. The questionnaire was administered through face-to-face interview and email. A combination of factors including the demanding nature of their jobs and lack of facility like computer made it hard for the targeted respondents to lend commitment to this research despite persistent follow-up from the researcher. Therefore, it was difficult to obtain high participation. Nevertheless, it was estimated that at the time of the study, each of these states had around 80 wildlife officers who were involved in enforcement activities, thus, the number of respondents who participated in the study was more than 25% of the target population. However, convenient sampling method to administer the questionnaire means that the results are not generalisable to all wildlife enforcement officers in the region but provide important insights.

RESULTS AND DISCUSSION

In line with the nature of wildlife enforcement work, almost all the respondents were males with only two female respondents. In terms of race, 27% of the respondents were Malays and 60% were natives of Sabah and Sarawak, including Kadazan, Dusun, Iban

and Bidayuh. About 55% of the respondents were aged between 41 and 49 years old and 32% were more than 50 years old. To sync with their seniority, almost all the respondents (98%) had more than 10 years' working experience with wildlife authorities. In terms of education level, merely 14% had completed tertiary education. Majority of the respondents had passed the Malaysian Certificate of Education. Despite their moderate academic qualifications, most of the enforcement officers were rich with field site experiences. Based on their academic qualification or their working experience, 57% of the respondents claimed to be knowledgeable in forestry and about 5% declared they were knowledgeable in law and biology respectively.

While the respondents may use a combination of strategies in enforcing the laws, the survey result shows higher overall mean for deterrence strategy (M = 4.02, SD = .388) in both states compared to compliance strategy (M = 3.68, SD = .540) and responsive regulation (M = 3.51 SD = .551). This suggests that the orientation of the respondents is towards deterrence, rather than being persuasive or responsive. A high percentage responded as agree and strongly agree with all statements associated with deterrence strategy. For instance, most of the respondents (83%) believe that people will not comply with the law unless punishment is imposed on violators. Besides, when a violation is detected, the majority of the respondents (95%) say they are always ready to take formal enforcement

action. In line with this, about 96% of the respondents give emphasis on collection of evidence to prove violations.

Despite their tendency towards deterrence strategy, their flexibility to employ a mixture of enforcement strategies can be seen from the respondents' responses to some items related to compliance strategy. For example, in order to ensure compliance, 89% of them say they may persuade the regulated parties rather than using confrontation. Likewise, 58% of the respondents state they may try to negotiate or persuade violators before proceeding with formal enforcement action. With regard to responsive strategy, certain statements also receive high approval from the respondents. For example, many concur (68%) that depending on the circumstances and motives of the regulated party, a blend of persuasion and coercion can be used to achieve compliance. Similarly, many respondents (75%) say negotiation and advice can be used for less serious crimes.

As shown in Figure 1, the primary enforcement challenge identified by the respondents is institutional capacity (Sabah: M = 4.07, SD = .594; Sarawak: M = 4.18, SD = .425). The institutional capacity studied includes manpower in terms of number and skills, logistics and equipment. Almost 90% of the respondents concur; 50% of them strongly agree that there is insufficient number of officers to do enforcement. Similar to the situation in many other states, wildlife enforcement officers in Sabah and Sarawak also perform many different tasks

that include a myriad of administrative tasks like issuance of licenses, regulatory duties like monitoring birds' nests collection and social welfare work like responding to human-animal conflict call. Other than that, over 87% of the respondents think that their agencies have inadequate infrastructure facilities. About 71% of them view their equipment to be less advanced compared to the typed used by wildlife criminals. With regard to skills, 92% feel that conducting effective prosecution is a big problem for wildlife authorities. Besides that, 83% of the respondents believe that not all wildlife officers are skilled in recognising wildlife species.
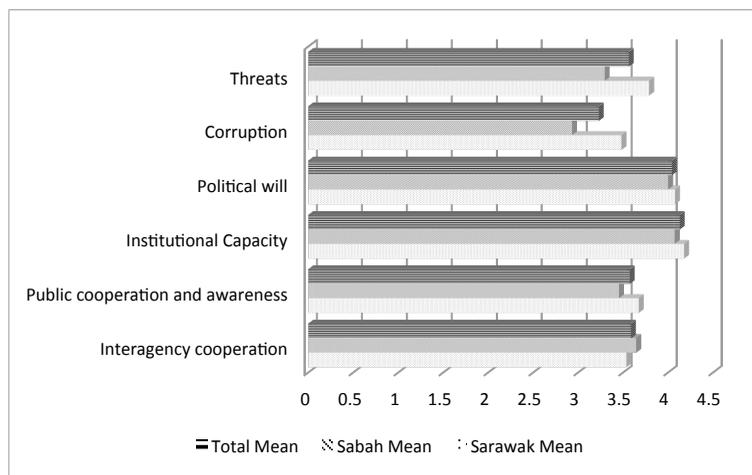
Figure 1. Major challenges to enforcement in practice

The second main challenge for wildlife officers in East Malaysia is the lack of political will (Sabah: $M = 4.00$, $SD = 1.00$; Sarawak: $M = 4.08$, $SD = .611$). The results show that 48% of the respondents agree and 6.3% strongly agree that politicians pay insufficient attention to wildlife conservation issues in East Malaysia. About 41% of them say that budget allocation for wildlife enforcement agency is inadequate. The third main challenge facing wildlife law enforcement in the region is lack of interagency cooperation with other enforcement agencies. With regard to this, Sabah ($M = 3.65$, $SD = .722$) had a slightly higher mean compared to Sarawak ($M = 3.54$, $SD = .516$). The study shows 68% of the respondents in Sabah think that they lack of cooperation from other enforcement agencies such as the customs, and military. Further, about 77% view information sharing between them and such agencies to be limited. In this survey, 82% of the respondents in Sabah are also of the opinion that other enforcement agencies lack understanding of their roles and

responsibilities. Most of them also perceive training with other enforcement agencies as rare.

In terms of cooperation from the public, 21% of the respondents strongly agree and 60% agree that the public does not have adequate knowledge about wildlife laws. The study found 81% of them believe that the public does not understand the role of wildlife enforcement authority. Meanwhile, 46% say that the public is not always willing to provide information about wildlife-related criminal activity. More than 75% of the respondents say that the public sometimes refuses to cooperate with them. Threat from wildlife criminals is another main challenge faced by wildlife officers in East Malaysia. The study found that approximately 29% of the respondents strongly agree and 46% agree that in the course of field operations, enforcement officers are often threatened by criminals. As for corruption, the study found the mean to be the lowest for both states (Sabah: M = 2.93, SD = 1.00 and Sarawak: M = 3.48, SD = .780). This suggests that corruption in wildlife enforcement is seen as less serious compared to other major challenges highlighted earlier.

Confirming the statistical findings above, as shown in Table 1, responses to the open-ended question reveal the highest recurring theme (35.9% of the responses) is coded to institutional capacity, half of them mention lack of infrastructure, equipment or logistics. These include lack of space to store confiscated wildlife, inadequate vehicles for enforcement since they are also used for other official

tasks, lack of motorcycles which are more suitable to chase culprits through narrow paths, unavailability of weapons for self-defence, lack of communication gadgets like walkie-talkie or special equipment that can help in areas with no telecommunication transmission. Many respondents also cite that there is small number of enforcement officers for the areas that they need to monitor. A few also express concern about the lack of young officers and permanent wildlife officers.

Table 1
Frequency of different challenges mentioned in the open-ended survey

Coding of Challenges	Frequency
Institutional capacity	28
Lack of cooperation	11
Lack of incentives	8
Threats	8
Political interference	7
Lack of training	4
Lack of priority	2
Poverty	2
Corruption-leak of information	2
Lack of monitoring	1
Lack of SOP	1
Forest clearance	1
Lack of enforcement power	1
High demand of wildlife	1
Easy access to habitat	1

Besides that, 14% of the responses to the open-ended item are associated with lack of cooperation especially from the public. A few respondents also mentioned lack of cooperation from other enforcement agencies. About 10% of the responses

which were coded raised concerns about threats from aggressive suspects. Many respondents also highlighted lack of incentives as another major challenge for wildlife officers. In relation to this, respondents reported limited overtime allowance and lack of other financial allowance for conducting dangerous operations. Low salaries and lack of moral support also worsened the situation. Other major challenges cited by them are political interference, leaking out of enforcement information and lack of training.

The study discovered that wildlife officers in Sabah and Sarawak tend towards deterrence strategy in enforcement. Such enforcement is seen to provide deterrence to both the culprits and the wider public (Wellsmith, 2011). However, the expected deterrence effect will only ensue if enforcement is strong. Enforcement can be strong if detection is high and is followed by certain and severe punishment (Du Rées, 2001). Several researchers have found that high detection of violations, followed with other further enforcement measures like giving warning, seizure or prosecution will best improve compliance with wildlife protection laws (Rowcliffe, de Merode, & Cowlishaw, 2004).

The current study shows that wildlife authorities in Sabah and Sarawak lack institutional capacity. Therefore, detection level may not be as high as the authorities would hope for. For example, in order to increase detection of violations, patrolling efforts must also be intensified (Keane et al., 2008), which is currently difficult for Sabah

and Sarawak due to small number of officers and limited resources. Besides, as courts do not necessarily set the same priority as the wildlife authorities on protecting wildlife (Leader-Williams & Milner-Gulland, 1993), it is difficult to ensure certain and severe punishment even if the culprit is brought to court.

Nurse (2011) argued that the existence of different types of offenders and criminal behaviour must be recognised in policy and enforcement practice. This could be the starting point for Sabah and Sarawak to improve enforcement effectiveness. By acknowledging the various types of offenders and offences, the wildlife authorities in both states can set targeted strict enforcement activities for persistent offenders and serious criminal behaviour like those which involve organised wildlife crimes. Meanwhile, they can employ a more persuasive or compliant approach in enforcing wildlife laws against other less culpable offenders or those doing the crimes due to ignorance or for subsistence.

The most common barriers to insufficient interagency coordination and cooperation include lack of mechanism for sharing data among agencies, differing agency structures and unclear chain of command. Resolving these obstacles is essential to ensure effective detection, investigation and prosecution. Coordination problem can be overcome through crossover training and assignment of law enforcement to facilitate communication of information between agencies and provide on-site consultation. Another strategy is to institutionalise

the coordination process through regular structured meetings to discuss best practices, networking and concerns as well as formalise relationships through agreements or joint-policymaking (Freeman & Rossi, 2012).

Like their counterparts in the Peninsular Malaysia, wildlife officers in East Malaysia also suffer from insufficient capacity of their enforcement agencies, lack of inter-agency and public cooperation and lack of political-will (Ariffin, 2015). These enforcement challenges are interrelated. Lack of institutional capacity is the primary challenge but is also affected by other main challenges. For example, lack of skills among the officers can be attributed to failure of hiring more highly educated candidates. This, in turn can be linked to lack of incentives to join the profession due to low enumeration and other allowances. In other words, if the problem of insufficient skills or knowledge is to be resolved, higher political-will is required to provide better payfor wildlife officers or more budget allocation for wildlife agencies so that they can send existing officers to more trainings to improve their skills. Akella and Cannon (2004) found that inadequate budgetary resources compromise the effectiveness of enforcement in several biodiversity-rich countries. Similarly, insufficient budget has hampered wildlife enforcement in East Malaysia.

Some of the challenges in the current enforcement system may need to be addressed at the same time to ensure better enforcement against wildlife crimes. For example, in order to address the problem of insufficient knowledge or skills, first, the issue of inadequate training needs to be resolved, which in turn, requires solution to lack of financial resources and political support. Although limited formal education does not necessarily preclude individuals from being excellent officers, it may lead to inefficiencies in the handling of paperwork or preparation of cases. Under both Sabah and Sarawak wildlife legislation, wildlife officers have police-like investigative powers and can be authorised to conduct prosecution. However, as the results of the study pointed out, there is a strong impression among the respondents for their skills and knowledge to be further developed. Therefore, their authority *per se*, is futile, unless their existing skills and knowledge are improved. Poor investigation skill precludes the authority from building strong cases and prosecuting wildlife offenders successfully. In addition, in order to encourage better cooperation from the public in providing information on wildlife crimes, the public should be informed that the laws protect the identity of informant. When more informants come forward, decision-makers may channel more resources into fighting wildlife crimes as they see the public views such crimes seriously.

CONCLUSION

The study found that enforcement officers in East Malaysia are primarily prone towards deterrence strategy in their enforcement approach. Due to the vast land mass of East Malaysia and the lack of manpower and

other resources of the wildlife authorities in the region, it is difficult to ensure detection of violations and successful prosecution to achieve the deterrence impact of strict enforcement. Low detection and prosecution rate will not only encourage violations but may also cause demoralisation among enforcement officers. Therefore, higher political-will especially in building up the institutional capacity of the wildlife agencies is essential for effective enforcement. Otherwise, with the existing capacity that they have and the challenges that they face in practice, it seems more appropriate for the wildlife enforcement officers to adopt more the compliance strategy. This will change their focus from punishing all violators to ensuring they comply with the law. This perspective will encourage the officers to take initiatives to advise and help violators until they comply with and will give the former a sense of satisfaction when they achieve this. Alternatively, the wildlife officers in Sabah and Sarawak can also consider the responsive approach by combining both the deterrence and compliance strategies. However, a clear enforcement policy including enforcement actions that should be taken under different circumstances needs to be developed to guide the enforcement officers in making decision when dealing with various violations under different circumstances to avoid bias and inconsistent enforcement responses.

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Smartphone Usage Capabilities among Younger and Elderly Users

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ABSTRACT

In recent years, the elderly population has increased, and most of them tend to live alone. This means that the elderly need to communicate with their younger colleagues, friends, and family via smartphones because these devices provide several channels of communication, such as calling, chatting, and video conferencing. However, the main problem for the elderly is their physical condition which inhibits them from using smartphones. Thus, the objective of this paper is to find out what are the UI components that degrade their ability for using smartphones. This can be achieved by comparing the capabilities of using smartphones between younger and elderly users and finding out the UI components what cause their capabilities to be different. From our assumption that physical conditions limit the capability of the elderly, we focused our research on their visual capabilities by conducting the experiments on younger users and elderly users, who were requested to perform specific tasks on Line, which is one of the most popular communication applications among Thais. The experimental results reveal that most of the elderly people take longer time to complete their tasks and make more mistakes than younger users. It was found that most of them have problems with color, font style, size, and brightness of UI. As a consequence, it is suggested that a more appropriate UI for smartphone

applications, especially communication applications, should be designed to solve such problems in order to increase the elderly's capabilities of using smartphones.

Keywords: Elderly, younger generation, mobile social network, limitations of using a smartphone by the elderly

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INTRODUCTION

Thailand, like many other countries in the world, has a population that is inclined to have a longer lifespan, while the birth rates are on the decline. This situation has led Thailand into an increased ageing population; the number of people aged above 60 is increasing rapidly (Office of National Economic and Social Development Board, 2015). Moreover, the family structure of the younger generation tends to be of a nuclear family, where grandparents live by themselves while extended families have become less significant (Pitikultang, 2013). As such, more elderly people are living alone and feel more lonely (Durick & Robertson, 2013). According to Photisuvan and Bunurapeepinyo, (1990), they need to socialise with other people, communicate with friends and family in order to overcome their loneliness. Even in the extended families, most children and family members like to have social contact via communication applications on smartphones because they are convenient and fast (Mirum Thailand Team, 2015). To be up-to-date, more elderly people are trying to use smartphones to communicate with

friends and family (Economic Intelligence Center, 2015).

At present, the Ministry of Finance is trying to propose the tax policy that gives the elderly an opportunity to work by offering a special tax deduction to any companies that hire the elderly (Thansettakig News, 2016). This job opportunity is another reason that requires the elderly to use smartphones in order to communicate with their colleagues and have social contact with others. However, many of them begin to experience some form of physical limitations such as trembling hands, presbyopia, and slow-response actions. These limitations irritate the elderly and make them stay away from using smartphones because they cannot see the screen very well, are unable to find the functions or the buttons they want to use, and scroll or swipe the screen (Arfaa & Wang, 2014; Moffatt, 2013; van de Watering, 2005). These limitations cause the elderly to take longer time to send instant messages, make typing mistakes, and perform the wrong tasks (Nicolau & Jorge, 2012). Besides physical limitations, many of the elderly do not know how to use smartphones and touch screens (Sayago & Blat, 2009). If the elderly can overcome these limitations and use smartphones effectively, they can keep in touch with their family, friends, and colleagues, thus have positive mental health and wellness (Theng, Theng, Chua, & Pham, 2012). Obtaining more benefits from using smartphones means there is an opportunity to enhance relationships and communication between the elderly and their families, (Santana et al.,

2005), make life more enjoyable and active with their families, and have pleasant lives (Consolvo et al., 2004)

There is sufficient literature on smartphone usage capabilities of the elderly users but most of the literature focuses on the interaction between the elderly users and the touch screen of smartphones. It was found that elderly users can tap, drag, pinch, and swipe the screen very easily but make a lot of typing mistakes (Kobayashi et al., 2011). The literature also compares the ability of using smartphones between the elderly user group, the children user group, and the teenage user group by asking them to enlarge the content on the screen, drag the object, and rotate the screen. It was found that the elderly users have problems enlarging the content on the screen the most. They also take more time to drag and rotate the screen than others (Chang, H. T., Tsai, Chang, Y. T., & Chang, Y. M., 2014). Most of the elderly users spend more time on enlarging or zooming the content on the screen in order to find the icon (Lin, W., Lin, H. C., & Yueh, 2014). Therefore, the objective of this paper is to find out what are the main UI components that degrade the capabilities of using smartphones among the Thai elderly.

From the above-mentioned reasons, it is believed that it would be better for the elderly to adapt themselves to live with younger generations in the digital society. In order to help them, the tests on smartphone usage capability between elderly users and younger users were conducted over

Line application, which is one of the most popular communication applications on smartphones. The results are used to determine how effectively the elderly can use smartphones and the major factors that affect their capabilities.

LITERATURE REVIEW

The Elderly

It is an indication that a person is entering the stage of getting old but there is no standard of the exact age criterion. It depends on the social, economy and culture of each country. For Thailand, according to the Elderly Act B.E. 2546, the elderly stage is divided into three age groups based on physical and mental condition, and self-support (The Office of Industrial Economics, 2014).

Group 1: The elderly between 60 and 69 years; this group refers to the elderly in the first stage who are physically able to live alone and can take care of themselves. This group has the highest number of elderly people, accounted for 57.67% (from 2000-2030).

Group 2: The elderly between 70 and 79 years; this group refers to the elderly in the middle stage who can still help themselves but start to rely on family and society if they are not very healthy. This group has the number of elderly people accounted for 32.29% (from 2000-2030).

Group 3: The elderly from 80 years up; this group refers to the elderly who require assistance from a healthcare assistant or their family in daily life and should be

supervised by a physician. This group has the lowest number of elderly people accounted for 10.04% (from 2000-2030).

The volunteers in this research are the elderly from Group 1 because the elderly in this group are still self-supported and are able to use smartphones by themselves.

The Younger Generation

These are individuals, both males and females of Thai nationality, that fall into a group of young adults, aged between 18 to 35 years and middle-aged adults who are between 36 to 59 years, according to the age groups defined by Havighurst's (Baltes & Schaie, 1973). However, it is found that people, who like to use online communication via smartphones in the period of changing society with technological revolution and the Internet, are between 19 to 45 years (Mirum Thailand Team, 2015). By combining the above definitions together, this paper divides smartphone users into two groups: the younger user group and the elderly user group. The younger user group consists of the adults whose ages are between 18 to 45 years in order to include both younger adults and middle-aged adults who like to use smartphones, whereas the elderly user group consists of adults whose ages are between 60 to 69 years and are willing to use smartphones. The reason this paper does not include the middle-aged adults between 46 to 59 years into the sample set is because

they tend to use less smartphones and this might affect the statistical results.

Mobile Social Network

This is a kind of social network that uses social network communication applications on a smartphone to make connections through individuals. A user can perform any specific activity on a smartphone through a mobile application that is developed specifically for that activity (Krouse, 2012). A survey on the use of smartphones among Thai people of all ages reveals that the popular activity on smartphone is social networking via social networking communication applications which allow a user to join online community, exchange information, and talk with others. (Dewing, 2010; Mirum Thailand Team, 2015).

Limitations of Using Smartphones by the Elderly

Because the elderly experience physical and capability changes (Holzinger, Searle, Nischelwitzer, 2007), which cause major problems for the use of smartphones, this paper hence focuses on the physical changes that affect the use of smartphones. From an interview with an ophthalmologist from the hospital in Bangkok, it was learnt that most elderly people have either blepharoptosis, eye ptosis, dry eyes, cataract, glaucoma, or macular degeneration. Many of the elderly have symptoms, such as dimming of color, amblyopia, and photophobia. These kinds

of physical changes in the elderly obstruct the use of smartphones.

RESEARCH METHODOLOGY

The objectives of this research are to compare the smartphone usage capabilities among elderly users and younger users and to determine the UI component causes of problems among elderly users when using smartphones. This paper focuses on the capability of using smartphone to have social contact with others via Line application. The tests were conducted on two sample user groups: elderly user group and younger user group. The elderly user group consisted of 38 participants of Thai persons whose ages are between 60 to 69 years, whereas, the younger user group consisted of 46 participants of Thai persons who are between 18 to 45 years old. The test on smartphone usage has been reviewed on the moral discipline and has been approved that it is not harmful to physical and mental conditions of the participants. The procedure of conducting the research is as follows:

Study Line Functions

Line is a communication application that integrates messaging and voice over IP services together. It is the application that allows users to create discussion groups, send messages, post pictures, or make phone calls. All functions are free of charge, only user identification is needed to activate the application. Functions of Line can be summarised as follows: (Kuljitjuerwong, 2013; Line Corporation Thailand; College of Management, 2013)

a) Add friend: Friends can be added to a chat room in many different forms, such as with phone numbers, QR Codes, and Line ID.

b) Chat: Chat can be carried out made with friends who use Line by typing on-screen keyboard or sending voice message. It also allows users to create a chat group of multiple members. In this chat room there are also other functions that can be used, for example:

Forward: Users can send text or pictures from one chat room to another friend or multiple friends.

Copy: Users can copy text from one chat room to another friend one at a time, or paste it back in the same chat room.

c) Send Photo: Users can send photos or videos from the album intheir phone as well as voice messages to friends in that chat room.

d) Sticker and Emojis: Users can send sticker and emojis in various forms to a friend in that chat room and can also download additional stickers.

e) Free Voice Call: Users can make a call to a friend in that chat room using Line application.

f) Profile Setting: Users can access the setting pages to edit their personal information including names and pictures, or set authorities.

g) Timeline: This is the online community that allows users to update their status, post messages or photos or video, offer feedback, press like, or send stickers.

h) Games: Line has games that Line members can download using their Line account which users can play alone or compete against their friends in Line .

From the Line functions mentioned above, enquiry was made of 10 elderly users. It was found that most of them did not use all the functions, did not play games, or post information to their Timeline. Therefore, only eight functions were selected to conduct the test which is described in the following section.

Determine Activities for Testing

Since access to the functions of Line application depends on the setting of each smartphone, unbiased test was established by requesting the population to perform the same set of activities on the same smartphone model. The activities were selected from the most frequently used activities among smartphone users, and are shown in Table 1.

Table 1
Testing activities

Activity	Process of Activities
1. Chat	- Swipe the screen to select a friend and enter the Chat room
	- Type the messages as specified
2. Add friend	- Choose Add friends with ID/telephone number
	- Type the specified friend's ID
3. Forward	- Select messages to be forwarded as defined
	- Select Forward command
	- Select friends to be forwarded
4. Copy	- Select messages to be copied as specified
	- Select Copy command
	- Paste the copied messages and send
5. Edit name and profile Photo	- Select Setting and select Profile
	- Edit name
	- Search for photos
	- Enlarge the photo and select the photo to be displayed
6. Free call	- Select Free Call from Chat page
	- Press End Call
7. Sending photo	- Select Photo Menu
	- Search for photos and send photos
8. Sending sticker	- Slide Menu to Send Sticker
	- Scroll to a specified sticker
	- Send sticker

Prepare Test Recording Form

Before the test is conducted, the test recording form was prepared, which was used to keep personal information of each participant and the test results which consists of two parts:

Part 1: Personal information of each participant: sex, age, education, job

Part 2: Test results of usage capability based on eight specified activities. The results of each activity consist of the nature and the number of errors, duration, and other observations.

Conduct Usability Test

Two groups of smartphone users were selected as sample groups for the test: the elderly user group with 38 participants and the younger user group with 46 participants. The sample size of the elderly user group was calculated using the standard sample size calculation from an unknown population with 95% confidence interval. Elderly users who had already used smartphones in their daily lives were selected in order to make the test results unbiased. The sample size of the younger user group was larger because the interval of the younger user group was wider; therefore, the same number of participants were selected from three age groups as follows:

16 participants from ages between 18 to 21 years, which is, the group of students.

15 participants from ages between 22 to 35 years, which is, the group of young working people.

15 participants from ages between 36 to 45 years, which is the group of working people.

After the test activities and the test recording data were designed, it was the stage of conducting smartphone usability tests with the elderly user group and the younger user group by asking each of them to perform eight activities. Data were collected and recorded on the test recording form by observing their behaviour, observing the types of errors and the number of errors, and the time it took to accomplish each activity. The test was conducted by a team of three observers; the test procedure is as follows:

a) Introduce the team and explain the test procedure to the sample groups.

b) Clarify the purpose of the test and inform what data would be collected from the test results.

c) Get acquainted with the sample groups and gather all personal information necessary for the test.

d) Start the test by explaining the activities that a participant has to perform step-by-step together with the illustrations to make it easier for him / her to understand. The participants were then asked to start the test according to the steps in Figure 1.
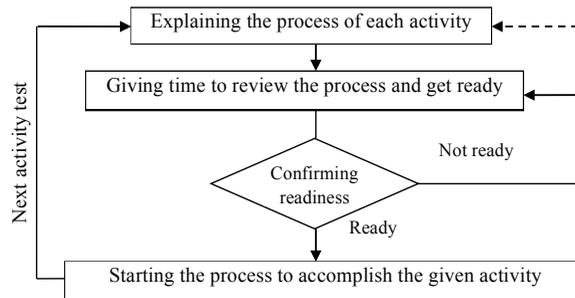
Figure 1. Test process of each activity

Analyse Smartphone Usage Capability of the Elderly

Upon completion of the smartphone usability tests via Line application from both groups, the test results containing the numbers of errors, the types of errors, and the duration of the two groups were compared in order to see if there were any significant differences between them. If significant differences in smartphone usage capabilities were recorded, the analysis was performed to find out the major causes.

RESULTS

The test results of smartphone usage capabilities through Line application of the two sample groups are presented below:

Smartphone Usage among the Younger User Group

The test results of smartphone usage based on eight activities from the younger user group of 46 persons, aged between 18 to 45 years, reveal that Chat activity that takes the longest time to accomplish due to typing that takes an average of 34.05 seconds. Next is Edit profile activity which needs many steps to accomplish for both renaming and changing the profile picture, that takes about 29.03 seconds. This is followed by the Free Call activity takes the shortest time with an average of 2.82 seconds because it needs the fewest steps to accomplish as shown in Table 2.

Table 2
Time spent on testing each activity among younger users

Activity		$\bar{X}$ (sec)	SD	Max	Min
1.	Chat	34.05	10.12	71.28	18.28
2.	Add friend	9.45	3.27	21.50	4.71
3.	Forward	13.96	4.56	27.63	7.59
4.	Copy	5.34	1.63	9.28	2.29
5.	Edit profile	29.03	7.17	48.95	15.40
6.	Free call	2.82	0.63	4.31	1.76
7.	Send photo	7.22	2.09	14.64	3.4
8.	Send sticker	3.31	1.88	9.79	1.11

It can be seen that the maximum and the minimum time spent on each activity is considerably different, and the observation reveals that the users who spend longer time are the ones who often make mistakes. Remarks were recorded to see whether the age difference in the younger user group would take different time for the test or not, therefore, the overall data are divided into age groups as follows:

18-21 years: group of university/ college students

22-35 years: group of young working people

36-45 years: group of middle-aged working people

The average time of each activity is nearly the same; however, time also increases with age (see Table 3). Thus, the average duration in Table 2 can be used as the average time for each activity for the younger user group.

Table 3
Average time spent on each activity by the younger user group

Activity	Age18-21 $\overline{X}$ (sec)	Age22-35 $\overline{X}$ (sec)	Age36-45 $\overline{X}$ (sec)
1	35.61	31.69	37.87
2	8.45	8.88	12.97
3	13.11	13.43	17.09
4	5.04	5.42	5.66
5	29.14	26.29	36.71
6	2.77	2.74	3.14
7	6.41	7.17	8.88
8	3.02	3.41	3.56

Table 4
Type of errors for each activity by the younger user group

Activity		Type of Error	Frequency
1.	Chat	Swipe the screen mistakenly	8
		Typing error	4
2.	Add friend	Type the wrong ID	4
3.	Forward	Swipe the screen mistakenly	5
4.	Copy	-	-
5.	Edit profile	Type wrong name	3
6.	Free call	-	-
7.	Send photo	Select the wrong photo	1
		Press the wrong button	1
8.	Send sticker	Swipe the screen mistakenly	2
		Press the wrong button	1

From Table 4, it can be seen that the Chat activity has the highest number of errors because of swiping beyond the specified name and making mistake while typing; and therefore, taking longer time for the activity. It can be notice that the Edit profile takes long time to accomplish but contains less errors, this might be because there are many steps to do but each step is easy and straight forward.

Test results of smartphone usage from the elderly user group

The test results of smartphone usage based on eight activities from the elderly user group of 38 persons, ages between 60-69 years reveal that Chat is the activity that takes the longest time to accomplish with the average of 79.13 seconds, followed by the Edit Profile activity with the average of 70.21 seconds as shown in Table 5.

Table 5
Time spent on testing each activity among elderly users

Activity		$\overline{X}$ (sec)	SD	Max	Min
1.	Chat	79.13	26.61	164.56	37.44
2.	Add friend	24.88	6.95	45.45	11.75
3.	Forward	30.69	12.06	71.67	15.72
4.	Copy	12.76	3.34	18.84	3.48
5.	Edit profile	70.21	14.29	107.45	37.21
6.	Free call	6.62	3.71	17.74	2.75
7.	Send photo	16.58	5.10	31.02	8.09
8.	Send sticker	5.47	3.40	16.30	1.27

Table 5 shows that the maximum and minimum time spent on testing are quite different due to different levels of expertise. The participants who spend longer time are the ones who often make mistakes and spend more time staring at the screen before proceeding to the next step because most of them are afraid to make mistakes.

Table 6
Type of errors for each activity by the elderly user group

Activity		Type of Error	Frequency
1.	Chat	Swipe the screen mistakenly	10
		Typing error	38
2.	Add friend	Type the wrong ID	3
3.	Forward	Select the wrong friend	2
		Select the wrong messages	2
		Select the wrong command	2
		Swipe the screen mistakenly	1
4.	Copy	Select the wrong command	1
5.	Edit profile	Swipe the screen mistakenly	3
		Select the wrong menu	2
		Enlarge the wrong photo	1
		Type the wrong name	2
6.	Free call	Select the wrong button	4
7.	Send photo	Swipe the screen mistakenly	3
		Select the wrong photo	1
		Press the wrong icon	1
8.	Send sticker	Press the wrong button	3
		Swipe the screen mistakenly	2

According to the errors shown in Table 6, Chat activity has the highest occurrence of errors in both groups. The main errors are from typing mistakes and swiping the screen mistakenly. The second highest activity with the most number of errors is Edit profile activity where most of the errors are from swiping the screen mistakenly, choosing the wrong menu, typing the wrong profile name, and being unable to enlarge the photo.

From the comparison of errors between the elderly user group and the younger user group (Table 4 and Table 6), the elderly user group has more errors than the younger user group in all activities. The most common errors that occur among both user groups are from swiping the screen mistakenly, misspelling, and sending wrong stickers in Chat activity. For other activities, the elderly users have various kinds of errors and usually have more errors than the younger users. In some activities, the younger users commit no error at all while the elderly users make so many errors, for example, the Free call activity where most of the elderly users press the wrong button. This may be caused by the degeneration of the eyes of the elderly.

Comparison on smartphone usage capabilities between the elderly user group and the younger user group

Comparison on smartphone usage capabilities through Line application was analysed in two different aspects: the duration and the errors of each activity as shown in Table 7.

Table 7

Average duration and average errors of each activity between the elderly user group and the younger user group

| Activity | A = The elderly user group B = The younger user group C = A-B | | | | | |
| | Average Duration ($\overline{X}$) (Sec.) | | | Average Error | | |
	A	B	C	A	B	C
1	79.13	34.05	45.08	1.21	0.26	0.95
2	24.88	9.45	15.43	0.08	0.09	-0.01
3	30.69	13.96	16.73	0.18	0.11	0.07
4	12.76	5.34	7.42	0.03	0.00	0.03
5	70.21	29.03	41.18	0.24	0.07	0.17
6	6.62	2.82	3.8	0.11	0.00	0.11
7	16.58	7.22	9.36	0.13	0.04	0.09
8	5.47	3.31	2.16	0.13	0.07	0.06

From Table 7, it can be seen that the average duration on smartphone usage of the elderly user group is higher than that of the younger user group in all activities. The graphs of these data are displayed in Figure 2 to show the differences in the usage capabilities in two aspects: the average duration and the average errors of each activity.
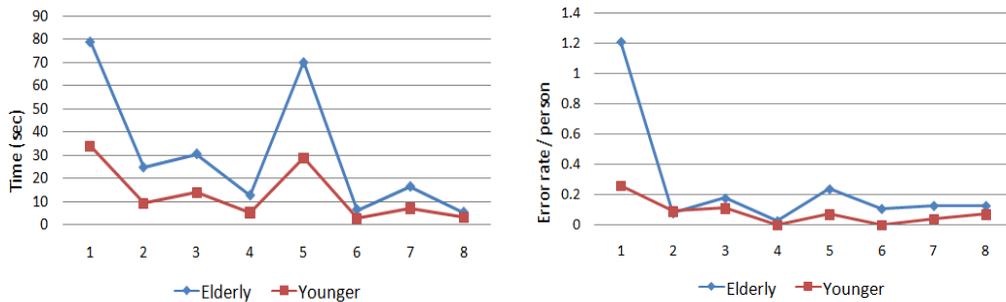
Figure 2. The average duration and average errors of each activity between the Elderly User Group and the Younger User Group

The differences on the usage capabilities between the elderly user group and the young user group can be categorised into three groups:

Group 1: This group consists of activities with the biggest differences; that is, Chat and Edit Profile. In the Chat activity, the elderly users spend more time than the younger users, of up to 45.08 seconds with the highest average error of 0.95 times per person. From the inquiry with the elderly group, it is found that they spend most of their time to scroll the screen to find friends and to type the message. In the Edit Profile activity, the elderly users spend more time than the younger users, up to 41.18 seconds, with the average error of 0.17 times per person.

Group 2: This group consists of activities with some differences; that is, Add Friend and Forward. In the Add Friend activity, the elderly users spend more time than the younger users, up to 15.43 seconds with the average error not much different from the younger users. Observation showed that the elderly users often take extra time to make sure that they do not make any mistake before proceeding to the next step. In the Forward activity, the elderly users spend more time than the younger users, up to 16.73 seconds, with the average error of 0.07 times per person, mostly from selecting the wrong friend and the wrong command.

Group 3: This group has only a few differences in the usage: Copy, Free Call, Send Photo, and Send Sticker. In the Copy activity, the elderly users spend more time than the younger users, up to 7.42 seconds with the average error of only 0.03 times per person. In the Free Call activity, the elderly users spend more time than the younger users up to 3.8 seconds with the average error of 0.11 times per person from pressing the wrong call button. In the Send Photo activity, the elderly users spend more time than the younger users, up to 9.36 seconds with the average error of 0.09 times per person. In the Send Sticker activity, the elderly users spend more time than the younger users up to 2.16 seconds with the average error of 0.06 times per person. Most of the errors are when selecting the commands but the errors are not very different from the younger users because there are only a few steps to accomplish the activity.

DISCUSSION

The test results from using smartphones to communicate through Line application of the elderly users and the younger users reveal that elderly users take more time than the younger users in all the activities. These results tell us that the elderly users have problems using communication applications on smartphones. In some activities, the capabilities of the elderly users are almost as good as those of the younger users, but in some activities the capabilities of the elderly users are very low, especially for Chat activity. It is because the elderly users need to spend more time to find the alphabets and also tend to press the wrong

alphabets. In addition, there are other causes and effects that make the capabilities of the elderly users and the younger users different as shown in Table 8.

Table 8
The impact of smartphone usage on the elderly users

Activity	Errors / Timing Difference	Impact on Communication
1	Swipe the screen mistakenly Typing error Take longer time	Slow response and miscommunication
2	Type the wrong ID Take longer time than usual	Add the wrong friend or communicate with the wrong person
3	Select the wrong command Swipe the screen mistakenly Take longer time than usual	Slow forwarding/sending wrong messages/ sending to the wrong person
4	Select the wrong command Take slightly longer time	-
5	Type the wrong name Select the wrong photo Select the wrong menu Take slightly longer time	Might cause the partner to think of you as another person but no impact on duration
6	Press the wrong call button Take slightly longer time	-
7	Swipe the screen mistakenly Select the wrong photo Take slightly longer time	The wrong photo might lead to miscommunication
8	Select the wrong command Select the wrong sticker Take slightly longer time	The wrong sticker might lead to miscommunication

From Table 8, it can be seen that errors and duration when using communication applications increase with age. Only some activities are not affected by age, such as Free call and Copy, because if a user selects the wrong command, the activity cannot proceed any further.

Most of the problems that cause errors are due to typing mistakes, pressing the wrong command and swiping to the wrong object. From the test results and the interviews with the elderly users, it was found that the current screen or the user interface may not be appropriate for the elderly users' vision, and result in errors and are time consuming. After analysing errors and duration of smartphone usage of the elderly users, the main causes of errors can be summarised, as shown in Table 9.

Table 9
Screen components that affect smartphone usage of the elderly users

Error Group	Components that Affect Usage
Selecting the wrong button or command	Color, brightness, size of the letters and buttons, space between objects
Swiping the screen mistakenly	Color, brightness, size of the letters, space between objects

From Table 9, the errors can be divided into 2 main groups: selecting the wrong button or command and swiping the screen mistakenly. These errors are the results from vision problems of the elderly, such as blurred vision and halos. From the analysis, it was learnt that the main elements on a screen that affect vision of the elderly are brightness, colour, fonts, size of the buttons or objects as well as the space between objects on the screen.

CONCLUSIONS AND RECOMMENDATION

At present, communication via smartphone is an important part of everyday life. It is a means for borderless and worldwide communication without limits, in terms of location, time, and people of different age, especially the elderly, who need to adapt to the new technology in order to communicate with their children, other family members as well as their colleagues. The elderly who need to communicate with others via smartphones have to encounter vision problems that decline their smartphone usage capability. It takes a long time for them to accomplish most of the tasks and they tend to make more errors in communication than the younger ones.

From the test results, it is concluded that capabilities of smartphone usages among the elderly users are lower than those of younger users; the main reason is that the elderly's physical and mental conditions decline with age. Therefore, their capabilities of searching, typing, thinking, memorising, and seeing are not as good which slow down their performance and cause more errors. Furthermore, observations during the tests revealed that most elderly users have vision problems that cause them inconvenience when using smartphones because they cannot see the UI components very well. Most elderly users have problems with colour, font style, size, and brightness. Therefore, it is recommended that the smartphone usage capabilities of the elderly be improved if a more appropriate UI for smartphone applications is designed especially for the elderly. Thus, a viable follow-up study would be to find the most suitable combination of the UI components for smartphone applications in order to improve smartphone usage capability of the Thai elderly.

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Students' Perspective on the Impact of English Teacher Development Programs on Teaching Quality in Indonesia

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ABSTRACT

Finding effective methods for improving teaching quality is crucial because it has been found to be the most important factor in education. This paper compares two approaches of improving teaching quality through a one-year experimental study involving two experimental groups and one control group. The first is the use of education standards and the second is the use of education standards combined with a teacher development program. Teaching quality was measured in four variables: Building classroom as a learning environment (CLE), instruction, questioning, and orientation. In this study, 1255 students and 45 teachers from 43 junior secondary schools in two provinces of Indonesia voluntarily participated. Multilevel modelling was employed and the results indicate that both interventions have significant effects on the outcomes. However, as expected, the second intervention is significant in all variables and has larger effects, whereas the first intervention is significant only in two variables: CLE and questioning. The findings of this research imply the need to have clear and concrete education standards and to enhance these education standards with training sessions to facilitate better teaching quality.

Keywords: Education standards, teaching quality, teacher professional development program, dynamic model of educational effectiveness research

INTRODUCTION

It is widely accepted that teachers play important roles in improving learning outcomes. Therefore, various approaches have been introduced and implemented to improve teacher quality. In this paper, two

approaches, namely education standards and educational effectiveness research (EER) are compared through a one-year experimental study. Education standards have been argued to serve as guidance for improvement purposes, which is the focus of this paper. The argument is that standards define goals and provide concrete direction to different stakeholders, such as principals, teachers and administrative assistants to provide learning opportunities and improve outcomes for all students regardless of their background (Dowson, McInerney, & Van Etten, 2007; Neumann, Fischer, & Kauertz, 2010; Schmidt, Houang, & Shakrani, 2009, Stosich, 2016, Volante, 2012). Agreement on a shared set of specific, clearer and higher goals and ways to accomplish them is found to improve organisational capacity and to have better planning and actions (Kawamato & Greenes, 2014). In this way, both excellence and equity are argued to be simultaneously addressed. .

For teachers, education standards provide direction by setting clear indication on what students should learn and be able to do (Choi, de Vries, & Kim, 2009; Dowson, et al., 2007; Marzano & Kendall, 1996; National Research Council [NRC], 2001; Neumann et al. 2010; Ravitch, 1995; Schmoker & Marzano, 1999). In this case, teachers are required to deepen their knowledge and skills related to their subject matter and incorporate various teaching strategies to meet different needs of different students, which in turn are expected to improve learning outcomes for all students (Chambers & Dean, 2000; McClure, 2005; Stosich, 2016).

The standards are also argued to promote school accountability whereby schools have to report their results to the public and receive the consequences accordingly (Raizen, 1998; Ravitch, 1995). In this respect, high-stakes testing has been widely developed to monitor performance (Hamilton, Stecher, & Yuan, 2008). However, the assessment is more summative, where results are used mainly for accountability purposes and not to provide feedback for teachers to improve their instruction (Snow-Renner, 2001). In addition, little is known about the results. Several existing studies, which are dominated by those in the United States, have identified a large variation among different states despite some progress (Hanushek, Peterson, & Woessmann, 2012) and performance gaps among different states and between the white and black students (e.g. Dowson et al., 2007; Hanushek et al., 2012; US Department of Education, 2008, 2015).

Indonesia, as the focus of the study, has a history of low student achievement in both national and international measurements (Jazadi, 2003; Kompas, 2010; Mohandas, 2004; Nurweni & Read, 1999; Setiogi, 2003; Tilaar, 1992). Following the movement of education standards in other countries, the Indonesian government established formal education standards to improve education in 2005. Schools are expected to start implementing them seven years afterwards at the latest (Pemerintah Indonesia, 2005). To

date, as in other countries, few experimental studies have been conducted to examine the effectiveness of the standards. Referring also the findings in the US, thus, not much could be learnt from the standard movement; there are, indeed, missing gaps that need to be fulfilled.

Two problems may contribute to the ineffectiveness of the standards. Firstly, research has found that standard documents have been largely written in a broad and global language (e.g. Choi, de Vries, & Kim, 2009; Dowson et al. 2007; Hammer, 1998) and have been criticised for being vague and nebulous and having insufficient grounding in their content (Gandal, 1996; Finn, Petrili, & Vanourek, 1998). The standards usually consist of lists of topics and there is lack of explicit guidance for teachers about instructional strategies (Hill, 2001). Secondly, teachers face problems dealing with the standards (Gandal, 1996; Hammer, 1998; NRC, 2001, Stosich, 2016), which clearly implies that teachers are not provided with appropriate assistance.

On the other hand, educational effectiveness research (EER) has provided empirical evidence on factors related to student performance, which are useful to guide educational improvement and to prioritise actions. There have been different lists of factors situated at different levels, namely context/system, school, classroom/teacher and student levels. However, the findings suggest a consensus that high expectations, curriculum quality/opportunity to learn, school climate, classroom climate, effective learning time/classroom management, structured instruction, and frequent evaluation are found to be strongly related to student outcome (Azigwe, 2016; Creemers & Kyriakides, 2008; Creemers & Reezigt, 1996; Ehren, 2015; Muijs & Reynolds, 2000, 2011; Reynolds et al., 2014).

Another important finding of EER is the fact that teacher or classroom factors, which in some studies are referred to as teacher instructional roles, have been found to be superior compared to factors at other levels (e.g. Creemers, 1994, Darling-Hammond, 1997; Doolaard, 1999; Goldhaber, 2015; Harris & Muijs, 2005; Luyten & Snijders, 1996; Marzano, 2007; Scheerens, 2013; Van Der Werf, Creemers, De Jong, & Klaver, 2000).

There have been models of EER developed by researchers in the field, one of which is the dynamic model of educational effectiveness research (Creemers & Kyriakides, 2008).

As described in Figure 1, it has four levels, that are, context/national policy level, school level, teacher/classroom level, and student level. The model emphasises the teacher/classroom level and expects the above levels, namely context and school levels to provide necessary conditions for effectiveness of the classroom level.
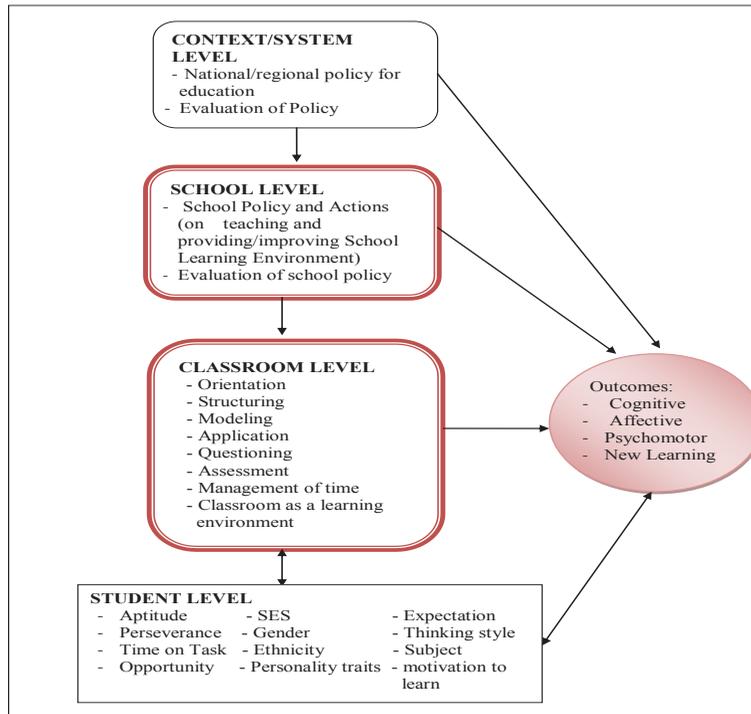
Figure 1. The dynamic model of Educational Effectiveness Research (Creemers & Kyriakides, 2008)

Responding to the criticism that existing effectiveness models do not explicitly refer to the measurement of each effectiveness factor, the model proposes five dimensions to measure the effectiveness of factors in each level. Creemers and Kyriakides (2008) argue that the dimensions could provide a better picture of effectiveness enhancing factors and hence, more specific strategies for improving educational practice could be established. These dimensions are frequency, focus, stage, quality and differentiation. Frequency refers to the quantity of activities associated with effectiveness factors, whereas focus is dealing with the specificity of the activity in relation with the goals of the activity. Effectiveness factors can happen in different periods and therefore the dimension of stage looks at the period at which the activities take place. Quality looks at the properties of the activities or whether they are supported by literature or whether students understand and can follow the activities. Finally, differentiation is concerned with the diversity of students and teacher actions to help all students have the opportunity to learn.

With respect to the classroom level of the model, which is the main concern of the model and also this paper, Creemers and Kyriakides (2008) refer to observable teacher instructional roles and relate them to student outcomes. These factors include: (1) orientation; (2) structuring; (3) questioning;

(4) teaching modelling; (5) application; (6) management of time; (7) teacher role in making classroom a learning environment; and (8) classroom assessment. Table 1 describes the main elements of each factor. An experimental study by Antoniou (2009) using classroom factors of the dynamic model found an increase of teaching quality and student performance and therefore, the model is adopted in this paper.

In summary, the standards serve as guidance in setting educational goals and expectations, whereas the results of EER provide empirically validated principles on what to prioritise in the teacher development program in order to achieve the goals.

Taking both the arguments of education standards and the empirical findings of EER in serving frameworks to improve teacher quality, this paper attempts to compare two approaches: the use of standards and the use of standards combined with a teacher development program. However, as the case in other countries, the Indonesian education standards have been written in broad and general language. Therefore, this paper proposes an elaborated standards document for English in junior high schools as the context of the study, which is intended to further explain the competencies mentioned in the standards.

Table 1
The main elements of each teacher factor included in the dynamic model (Creemers & Kyriakides, 2008)

1)	Orientation	a)	Providing the objectives/goals for which a specific task/lesson/series of lessons take(s) place
		b)	Challenging students to identify the reason for which an activity takes place in the lesson
2)	Structuring	a)	Beginning with overviews and/or review of objectives
		b)	Outlining the content to be covered and signalling transitions between lesson parts
		c)	Calling attention and reviewing main ideas
3)	Questioning	a)	Raising different types of questions (i.e. process and product) at appropriate difficulty level
		b)	Giving time to students to respond
		c)	Dealing with student responses
4)	Teaching modelling	a)	Encouraging students to use problem solving strategies presented by the teacher or other classmates
		b)	Inviting students develop strategies
		c)	Promoting the idea of modelling
5)	Application	a)	Using seatwork or small group tasks in order to provide the necessary practice and application opportunities
		b)	Using application tasks as starting point for the next step of teaching and learning

Table 1 *(continue)*

6)	The classroom as a learning environment	a)	Establishing on task behaviour through the interactions they promote (i.e. teacher-student and student-student interactions)
		b)	Dealing with classroom disorder and student competition by establishing rules, persuading students to respect them and using the rules
7)	Management of time	a)	Organising the classroom environment and maximising engagement rates
8)	Assessment	a)	Using appropriate techniques to collect data on student knowledge and skills
		b)	Analysing data in order to identify student needs and report the results to students and parents
		c)	Evaluating teachers' own practices.

RESEARCH QUESTIONS AND HYPOTHESES

This paper raises the following two research questions:

1. Do the (elaborated) standards only improve teachers' teaching quality?

2. Does the combination of the (elaborated) standards and a teacher professional development program (TPD) improve teachers' teaching quality more?

In line with these questions, two hypotheses are examined:

H1: teaching quality will be better when the education standards are further elaborated.

H2: teaching quality will be much better when the elaborated standards document is combined with a TPD.

EER, especially the classroom factors of the dynamic model of educational effectiveness research, was used to design the TPD. Two intervention groups were set up. The first group worked with the elaborated standards while the second group combined the elaborated standards document with a teacher improvement program.

METHODS

Research Design

The study was an experimental study in which two interventions were deliberately introduced to observe their effects (Field, 2009). The participants voluntarily participated, and as described in Table 2, were randomly assigned into three groups.

Table 2
The groups and the intervention

Group		Intervention
1.	Experimental 1	The elaborated standards document; the teachers were free to develop their own strategies in implementing and achieving the standards
2.	Experimental 2	The elaborated standards document and a teacher development program (teacher training)
3.	Control group	No intervention, teachers used the standard document available from the government

Participants

The population of the study was a private Madrasah Tsanawiyah in the provinces of DKI and Banten. Indonesia has a dual schooling system: general school, which is managed and supervised by the Ministry of National Education (MONE) and *madrasah*, which is under the authority of the Ministry of Religious Affairs (MORA). Students in *madrasah* follow the same national curriculum complied with by those in general schools but they have additional subjects for religions and therefore, have longer hours of schooling (Departemen Pendidikan Nasional, 2003). This study was specifically conducted for Madrasah Tsanawiyah, a junior secondary school level (12 to 13, 15 to 16 years old) due to several considerations. Most madrasah schools are private, small, and attended by students from low income families and generally are of lower quality compared to general schools (Asian Development Bank, 2006, Centre for Excellency and Quality Development Assurance [CEQDA], 2007). Therefore, improvement in this type of school is urgently required. English, especially reading comprehension, was selected since English is one of the subjects tested nationally through the national exam and students' attainment on this subject has been the lowest throughout the years (Badan Standar Nasional Pendidikan, 2010).

Sampling was carried out at the school level, yet the focus of this study was on the teacher and student levels. In each of the two provinces three municipalities or districts with the highest number of madrasahs were selected. Another criterion concerned school size; schools with enrolment of above 100 students were selected. Information on the research project and invitation to participate was sent to more than 200 schools in the selected areas. Until the deadline, 57 schools (32% accredited A, 68% accredited B), with a total of 59 teachers (M = 44%, F = 56%) and 2,431 students (M = 48, 5%, F = 51, 5%) volunteered to participate. In this paper, referring to the analysis, which requires the participants to participate in both measurements, only 45 teachers and 1255 students are retained.

Some background characteristics at both teacher and student levels were collected in this study. At the teacher level, the characteristics included gender, teachers' qualification, , years of teaching experience, and age while those at the student level consisted of gender, fathers' and mothers' education and fathers' and mothers' jobs. These characteristics are displayed in Table 3 and 4 respectively, which generally show no significant differences among the three groups.

Table 3
The background characteristics of teachers according to group

Characteristic	Distribution (%)		
	Exp 1	Exp 2	Cont
Teacher gender			
1. Female	50	74	47
2. Male	50	26	53
Teacher degree			
1. Diploma	13	21	18
2. Bachelor	81	74	77
3. Master	6	5	6
Teacher major			
1. English	75	84	82
2. Non-English	19	11	18
3. Missing/unknown	6	5	0
Teacher age			
1. <= 30 years	50	47	47
2. 31 - 40 years	25	42	18
3. 41 -5 0 years	25	11	29
4. Missing/unknown			6
Teaching experience			
1. <= 5 years	44	42	31
2. 6 - 10 years	31	32	31
3. > 10 years	25	26	38

Note: Exp 1 refers to experimental group 1, Exp 2 to experimental group 2, and Cont to the control group

Table 4
The background characteristics of students according to group

Characteristic	Distribution (%)		
	Exp 1	Exp 2	Cont
Student gender			
1. Female	50	55	52
2. Male	50	45	48
Father's education			
1. Primary	22	13	24
2. JSS	24	23	25
3. SSS	33	39	26
4. University	6	10	4
Missing	15	16	21
Mother's education			
1. Primary	32	19	35
2. JSS	23	27	19
3. SSS	26	28	20
4. University	4	7	4
Missing	16	18	22
Father's Job			
1. Labour and Farmer	32	26	38
2. Small business	40	34	38
3. Professional	17	25	10
Missing	12	15	14
Mother's Job			
1. Housewife	82	72	75
2. Labour and Farmer	2	3	4
3. Small business	6	6	6
4. Professional	5	11	4
Missing	5	9	11

Note: Exp 1 refers to the experimental group one, Exp 2 to experimental group 2, and Cont to the control group

Research Instrument

The main variable in this study is teaching quality, which was measured through classroom observation by independent observers and a student questionnaire. This paper specifically reports the results

of the student questionnaire, which was distributed two times (mid and end points) and constructed based on the classroom factors of the dynamic model (Creemers & Kyriakides, 2008). The students filled in the questionnaire merely based on their perception since there was no training for them on how to fill in the questionnaire nor any interview to confirm their perception. They rated their teachers twice, in the middle and end of intervention Due to technical problems, students were unable to rate their teachers prior to the intervention. However, based on the data of the observer, no difference in teaching quality (F {2, 49} = .554, p = .578) was observed among the three groups.

During the pilot study (> 300 students), 40 items representing the classroom factors of the dynamic model were included and questions were based on a five-point unidirectional scale ranging from "never" to "a great deal". In the exploratory factor analysis, four scales (32 items, α ranged from .71 to .85) were resulted and retained in the present study. These include orientation, instruction (the items refer to structuring, modelling, and application), questioning, and creating classroom as a learning environment (CLE). In both measurements in the present study, the (α) reliability was equal or above .80 except CLE in the second measurement (.71). In all measures, several items were reversed to assure that all items go in the same direction.

Interventions in the Study

Prior to the study, an analysis of the Indonesian government standards (of content) of English (reading comprehension) was carried out to analyse the clarity of the terms. It revealed that they were broad and general, and therefore, elaborated standards were developed to make them more concrete and specific. Both experimental groups attended a workshop to discuss the document. The activities included discussion on specific reading skills, analysis of the government standards to get an agreement on the proposed elaborated standards, and analysis and development of questions/tasks in accordance with the elaborated standards. Teachers in experimental group 1 were free to choose strategies to implement the elaborated standards.

Teachers in experimental group 2 were further assisted in a TPD program. In addition to the elaborated standards document, another document on effective teaching based on the classroom factors of the dynamic model was developed for experimental group 2. The TPD consisted of six meetings and the sessions were a combination of brainstorming, lecture, discussion, and group work in which they presented the result. The topics were: (1) building student interest and motivation through orientation and structuring; (2) teaching strategies [modelling] and the development of tasks [application] and questioning (for skills/competencies under

"understanding meaning"); (3) teaching strategies [modelling] and the development of tasks [application] and questioning (for skills/competencies under "responding meaning"); (4) developing lesson plan 1 (theoretical); (5) developing lesson plan 2 (practical); and (6) peer teaching. In the visit during the observation, feedback was provided by the observer to teachers in experimental group 2.

Data Analysis

The data were analysed both descriptively and statistically. The descriptive analysis refers to the mean score of each group in the four outcome variables (orientation, instruction, questioning, and CLE). These mean scores of each scale were computed and analysed using multilevel modelling (using MLwiN; Rasbash, Charlton, Browne, Healy, & Cameron, 2005) to investigate the effects of the interventions. The data were nested in three levels: student (level 1), school (level 2), and group (level 3) in which two levels were included and group (indicating intervention) was used as predictors. The first step was an empty

model to understand the variance at the student and school levels. The next step added the result of measurement one to see its effect. The third step included not only the result of measurement one but also the second intervention (experimental group two) as the predictors and regarded the first intervention (experimental group one) and the control group as the control group to examine the effect of the second intervention on the outcome variables. However, in this model it is not known whether the first intervention contributed to the outcome variables. Finally, the last model compared the effects of both interventions.

RESULTS

Descriptive: General Picture of Teaching Quality

The descriptive finding presents the mean score of each group in all four outcome variables in both measurement one and two in order to provide general picture of teaching quality. In general, students perceived good teaching quality of their teachers in both measurement 1 and 2.

Table 5
Descriptive statistics

Outcome Variable/Group	Measurement 1			Measurement 2		
	N	Mean	SD	N	Mean	SD
CLE						
Experimental Group 1	422	3.22	.56	426	3.31	.57
Experimental Group 2	491	3.29	.60	494	3.41	.58
Control Group	333	3.16	.50	334	3.18	.64
Excluded	9			1		
Total	1255	3.24	.55	1254	3.32	.60

Table 5 *(continue)*

Outcome Variable/Group	Measurement 1			Measurement 2		
	N	Mean	SD	N	Mean	SD
Instruction						
Experimental Group 1	421	3.22	.61	425	3.36	.66
Experimental Group 2	491	3.23	.65	493	3.40	.72
Control Group	328	3.17	.62	335	3.26	.81
Excluded	15			2		
Total	1240	3.21	.63	1253	3.35	.72
Questioning						
Experimental Group 1	423	3.38	.59	426	3.41	.69
Experimental Group 2	492	3.42	.65	494	3.45	.69
Control Group	335	3.96	.54	335	3.22	.78
Excluded	5			0		
Total	1250	3.40	.60	1255	3.78	.726
Orientation						
Experimental Group 1	425	3.44	.72	426	3.43	1.03
Experimental Group 2	494	3.49	.78	294	3.54	.86
Control Group	334	3.47	.70	335	3.33	.88
Excluded	2			0		
Total	1253	3.47	.74	1255	3.40	5.93

Table 5 indicates that students in all groups started to rate their teacher high (above 3 from 1-5 scales) in measurement one. In all the four outcome variables, teachers in experimental group 2 were rated higher than those in the other two groups except questioning, which was rated higher by the control group. Similarly, the standard deviation is also highest in experimental group 2, indicating more variance of teaching quality in the group. It is important to note that the data in this measurement were collected in the middle of the intervention. Due to some problems, the data at the beginning of the intervention could not be collected. However, as previously noted, no significant difference, F (2, 49) = .554, p =

.578, was found in the data from independent observers collected at the beginning of the intervention.

Compared to the first measurement, students in experimental group 1 and 2 rated their teachers higher in all four variables in the second measurement, that is, there was a gain from the first to the second measurement. On the other hand, the control group had a decrease in questioning and orientation. Teachers in experimental group 2 were again rated higher than the other two groups, but this time in all variables. Overall, there was an increase in all four variables from measurement one to measurement two, except orientation, from 3.47 in the first measurement to 3.40 in the

second one. In short, the above descriptive statistics showed changes and variation of teaching quality as perceived by students, whose effects were further investigated through multilevel modelling analysis.

The Result of Multilevel Modelling Analysis: The Effect of Interventions

As depicted in Table 6, four models were tested, whose results also showed variance at both student and school levels in all variables. The empty model shows that the differences in all variables are bigger at the

student than at school level, as is common in this type of study. In order to have a better estimate of the effect of the interventions, the subsequent analysis determined the results of the first measurement. Model 1 indicates that the first measurement in all variables has significant effect ($p < .01$) and is positively related to the results of the second measurement. Thus, students who rated high in the first measurement also rated their teachers high in the second one. The last model clearly shows that the first intervention has significant effects on two variables: CLE and questioning.

Table 6

The results of multilevel analysis explaining variation of teaching quality and the effects of interventions

	Empty Model	Model 1 (+ measurement 1)	Model 2 (+ intervention 2)	Model 3 (+ both interventions)
		Creating Classroom as a Learning Environment		
Fixed Part				
Constant	3.31 (.03)	2.54 (.10)	2.50 (.10)	2.43 (.10)
CLE (measure 1)		.24 (.03) ***	.23 (.03) ***	.23 (.03)
Intervention 1 (group 1)				.13 (.06)**
Intervention 2 (group 2)			.14 (.05) **	.21 (.05)***
Random Part				
School level	.03 (.01)	.02 (.01)	.01 (.00)	.01 (.00)
Student level	.34 (.01)	.33 (.01)	.33 (.01)	.33 (.01)
Deviance	2.244.363	2.175.734	2.168.675	2.163.489
Decrease in deviance		68.629	7.059	5.186
Variance explained		.052	.017	.009
Total variance explained			.068	
		Instruction		
Fixed Part				
Constant	3.35(.03)	2.60 (.11)	2.66 (.11)	2.61 (.12)
Instruction (measure 1)		.20 (.03) ***	.22 (.03)***	.20 (.03)***
Intervention 1 (group 1)				.10 (.07)
Intervention 2 (group 2)			.08 (.06)	.13 (.07)*

Table 6 *(continue)*

	Empty Model	Model 1 (+ measurement 1)	Model 2 (+ intervention 2)	Model 3 (+ both interventions)
Random Part				
School level	.02 (.01)	.02 (.01)	.02 (.01)	.02 (.02)
Student level	.50 (.02)	.49 (.02)	.49 (.02)	.49 (.02)
Deviance	2.730.265	2.666.475	2.664.750	2.662.902
Decrease in deviance		63.790	1.725	1.848
Variance explained		.028	.004	.004
Total variance explained			.032	
Questioning				
Fixed Part				
Constant	3.36 (.03)	2.60 (.01)	2.55 (.12)	2.44 (.12)
Questioning (measure 1)		.22 (.03) ***	.22 (.03)***	.22 (.03)***
Intervention 1 (group 1)				.19 (.07)**
Intervention 2 (group 2)			.12 (.06) **	.22 (.07)***
Random Part				
School level	.03 (.01)	.03 (.01)	.02 (.01)	.02 (.01)
Student level	.49 (.02)	.48 (.02)	.48 (.02)	.48 (.02)
Deviance	2.723.683	2.670.920	2.667.196	2.660.980
Decrease in deviance		52.763	3. 724	6.216
Variance explained		.038	0.008	0.012
Total variance explained			0.045	
Orientation				
Fixed Part				
Constant	3.44 (.04)	2.92 (.13)	2.863 (.13)	2.82 (.14)
Orientation (measure 1)		.15 (.04) ***	.15 (.04)***	.15 (.04)***
Intervention 1 (group 1)				.08 (.10)
Intervention 2 (group 2)			.15 (.08) **	.20 (.09)***
Random Part				
School level	.04 (.02)	.04 (.01)	.03 (.01)	.03 (.01)
Student level	.82 (.03)	.81 (.03)	.81 (.03)	.81 (.03)
Deviance	3.358.162	3.322.524	3.318.744	3.318.016
Decrease in deviance		35.638	3.780	.728
Variance explained		0.027	0.007	0.001
Total variance explained			0.034	

*** $p < .01$; ** $p < .05$; * $p < .10$

Model 2 demonstrates that experimental group 2 has significant effect in all variables at p < .05, compared to other groups, except instruction. On this variable, the effect is significant only at p < .10 (one tailed). However, Model 3 gives a better estimate: it is significant at p = .058. In addition, it is interesting to highlight that the second intervention explains nearly 2% of the variance in building classroom as a learning environment as indicated in Model 2. However, with respect to instruction, Model 2 shows that it explains almost nothing (.004) and the effect is less significant (p < .10, 1 tailed). Nevertheless, the variance at the student level in this model remains the same as that in Model 1, indicating that the variance is due to the differences at the school level, and thus the intervention plays a role. Moreover, Model 3 provides supporting information that the second intervention has significant effect at p = .058.

Overall, the findings, especially as described by the estimates in Model 3, clearly suggest that both interventions have effect but the second one has larger effects, not only in terms of the coefficient but also in the aspects. Concerning the aspects, experimental group 2 is proven to have significant effects in all four outcome variables, whereas in experimental group 1, there were significant effects in only two variables, namely, CLE and questioning.

DISCUSSION

The study examined the impact of two approaches of improving teaching quality as perceived by students. Generally, students reported high ratings in all four variables, which suggest that Indonesian teachers are considered to have relatively good teaching quality, as perceived by their students. However, this finding is contradictory to previous studies. Using classroom observation, Utomo (2005) described that in general, classrooms were characterised by a didactic, whole-class style of teaching. He, further explained that teachers paid little attention to children's needs as individual learners and little recognition that children enter school with ideas, opinions and conceptions about their world. Similarly, Kaluge, Setiasih, and Tjahjono (2004) indicated that teachers in general are unable to create active, joyful and effective learning environment.

This finding could be influenced by the Indonesian culture in which the teaching profession is normally regarded as a high and respected occupation and therefore, teachers benefit from being respected by students and society in general (Maulana, Opdenakker, Den Brok, & Bosker, 2011). Nevertheless, it is important to note that this study found significant effects of the second intervention, which is the main concern in the study, in all variables. Thus, teachers in experimental group 2 were perceived to have better performance by their students after one school year of intervention compared to teachers in the other two groups.

Furthermore, it is also crucial to show that the study found significant effects (p < .05) of the first intervention on two variables: building classroom as a learning

environment and questioning. However, a bigger effect size of the second approach could be inferred from its larger estimates compared to the first one. Therefore, the hypothesis built in this paper is satisfied. The use of clear and concrete education standards lead to better teaching quality compared to the general and broad education standards and the use of standards combined with teacher development program prove to outperform the other approaches in improving teaching quality.

It is also interesting to explore further the effects of both interventions on different variables. Concerning building classroom as a learning environment, the second intervention has significant effect at $p = .000$ and explains 2% of the existing variance, which is relatively high considering the fact that school level normally explains around 10% with many variables. In this variable, the first intervention has a significant effect at $p = .002$. Nevertheless, this result shows that teachers in both interventions have improved their skills, for instance, in building interactions among the members of the class and managing classroom disorder.

On the other hand, the results described in Table 6 indicate that even teachers in experimental group 2, to some extent, face difficulties to provide proper instruction to students. Model 2 explains that the effect of the second intervention is less significant ($p = .10$, 1 tailed and .058 in Model 2 and 3, respectively) compared to its effect in the other variables. Likewise, Model 3, which is considered as the best model, finds no significant effect of the first intervention

in instruction. This finding suggests that teachers may even forget to briefly explain the series of activities students will carry out and have more difficulties in presenting strategies or models of learning, and providing appropriate and enough application activities for their students. This result is not surprising as previous studies indicated similar findings, for instance, teachers are text-book oriented (Utomo, 2005), whereas some (English) text-books have been criticised for not enabling learners to achieve the goals of using the language and not providing further explanation on why and for what purposes students should do the exercises (Priyanto, 2009). It is also possible that instruction contains more difficult teaching skills.

With respect to questioning, the results indicate that teachers in both experimental groups have managed to raise various questions with more or even better hints and feedback to their students as both interventions have significant effect ($p < .01$ for the second intervention and $p <.05$ for the first one). Finally, the second intervention has significant effect on orientation ($p < .01$, model 2 and 3) but the first intervention does not. As previously mentioned, orientation is a very important aspect because effective teachers have been found to provide orientation activities to encourage students' motivation to learn, and this study has shown that the second intervention has succeeded in improving teaching skills in this aspect.

Finally, the teaching quality improvement shown in this study supports

previous studies such as by Avalos (2011) and Antoniou and Kyriakides (2013). Reviewing publications in the journal, *Teaching and Teacher Education* over ten years (2000 – 2011), Avalos concludes that when teachers participate in teacher development programs, improvement in teachers' knowledge and practice is observed. Similarly, the study of Antoniou and Kyriakides show links between teacher professional development and improvement in teaching skill.

CONCLUSION

This study compared two approaches of improving English teachers' teaching quality. The first was the use of elaborated education standards and the second was the use of elaborated education standards combined with a teacher development program, where the classroom factors of the dynamic model was used as the framework in designing the program. The findings of this study suggest two important conclusions. Firstly, education standards produce better teaching quality when the standards are written in concrete and clear language. Secondly, teachers' teaching quality is better improved when elaborated education standards are enhanced with a teacher development program or training sessions.

Thus, the findings of this study imply the need to provide teachers with a teacher development program. Furthermore, practically this study offers both theory-driven and evidence-based principles on the aspects and strategies of improving teaching quality. Theoretically, the study provides empirical evidence on the necessity of teacher development program next to the education standards and provides ground for further development of the dynamic model, especially concerning the use of standards.

Nevertheless, this study should also be considered from the perspective of some limitations. Firstly, this study was limited only to one type of schooling in Indonesia and one subject, of which results might not be generalisable to other contexts. Secondly, a previous study (Antoniou, 2009) revealed that teaching skills in the dynamic model could be classified into five stages, progressing from the easier to more difficult. When teachers are found in stage one, they are able to concentrate their improvement in skills in the second stage. Due to inevitable reasons, this study did not incorporate these stages. When these stages are included in a follow-up study, it is possible to see more comprehensive results.

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Orang Asli Student Icons: An Innovative Teaching Method for Orang Asli Students

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ABSTRACT

To enhance learning among the Orang Asli, the Faculty of Law of the National University of Malaysia, popularly known as Universiti Kebangsaan Malaysia (UKM), organised a motivational programme for Orang Asli students in November, 2014. The programme was facilitated by Orang Asli Student Icons, 12 Orang Asli students representing various faculties in UKM. This article discusses the role of the Orang Asli Student Icons in strengthening the level of awareness and motivation among the participants. To gather their insight into their role as facilitator in transferring knowledge and ideas to fellow Orang Asli students, a questionnaire was developed and administered following the motivational programme. In addition to the introduction and conclusion, this article covers four main areas. First, it discusses challenges and barriers within the Orang Asli education system. This is followed by an in-depth description of the motivational programme that was carried out. Third, a demographic analysis of the Orang Asli Student Icons is done. The final section of the ariticle presents the findings and analysis of the Orang Asli Student Icons' perception of their role in knowledge transfer towards motivating and increasing awareness among Orang Asli students. This article concludes that the Orang Asli Student Icons have played a significant role in addressing all challenges and barriers within the Orang Asli education system. This conclusion is supported by the positive feedback received from the participants and post-event statistics on student dropout among the participants involved in the programme.

Keywords: Indigenous teachers, learning challenges, Malaysia, roles, Orang Asli, student icons

INTRODUCTION

'Orang Asli' is a Malay term which translates to mean 'original people' or 'first people'. The Orang Asli are the descendants of the first inhabitants of Peninsular Malaysia 5,000 years ago (Masron, Masami & Ismail, 2013, p. 77). According to Masron et al. (2013, p. 77), the term was introduced by anthropologists and administrators to identify the 18 sub-ethnic groups, generally classified for official purposes, comprising the Negrito, Senoi and Proto-Malay. Nevertheless, the Orang Asli are not a homogeneous group, as each sub-group has its own language and culture and perceives itself as being different from the others (Masron et al., 2013, p.77; JAKOA, 2011-2015; Musa, 2011, p. 48). Linguistically, some of the northern Orang Asli groups (especially the Senoi and Negrito) speak languages that are presently termed as Aslian languages, suggesting a historical link between Orang Asli groups and the indigenous peoples of Burma, Thailand and Indo-China (Masron et al., 2013, p.77).

According to a JAKOA report (2010), the population of Orang Asli is about 178,197, representing approximately 0.6% of the total Malaysian population (Kardooni, Kari, & Yusup, 2014, p. 283). Most Orang Asli live in rural and remote areas. Thus, they are frequently excluded from mainstream development (Nordin & Witbrodt, 2012, p. 210; Nordin, Yahya, & Witbrodt, 2012, p. 528). Due to their geographical location, the Orang Asli do not have access to favourable infrastructure or quality education (*Laporan Status*, 2010).

After gaining independence in 1957, the government of Malaysia adopted aggressive measures to improve the life and conditions of its citizenry (Abdullah, Mamat, Amirzal, & Ibrahim, 2013, p. 118). Abdullah et al. (2013, p.118) stated that the programmes initiated, improved and influenced the lifestyle of the populace in general. However, despite all these measures, the development of education among the Orang Asli communities has yet to achieve the expected results. After examining the performance of primary and secondary school Orang Asli students, it was observed that Orang Asli students remained far behind compared with students from other ethnic backgrounds in Malaysia. The Malaysian government launched an initiative, the National Key Results Area (NKRA) in 2009 with the intention of providing all students with basic writing and reading skills by the year 2012 (Abdullah et al., 2013, p. 119). Other programmes introduced by the Malaysian Government included the Educational Development Action Plan for the Orang Asli Community, the Mini Hostels Programme, the Education Assistance Scheme of 2010, the Special Awareness Programme for the Parents of Orang Asli Students and the Friendly Teaching Programme (JAKOA, 2011). Accordingly, the Ministry of Education proposed a unique curriculum for Orang Asli by establishing and developing a suitable syllabus such as the Curriculum for Orang Asli and Penan (KAP) and the Comprehensive Special Model School Programme (K9) in selected Orang Asli

schools (*Pelan Pembangunan Pendidikan Malaysia* 2013-2025).

Notwithstanding the efforts made by the Malaysian Government, the standard of education of the Orang Asli has not been fruitful. It is recognised that there remains a high number of dropouts from both primary and secondary schools, coupled with all-round poor academic performance. It was further noted that only 880 Orang Asli students had completed their tertiary education between 1971 and 2010 (Abdullah et al., 2013, p. 119).

The Research Group on Indigenous Peoples, Faculty of Law, UKM conducted a motivational programme entitled 'Moh Hek Masuk U' for Orang Asli students from Raub, Pahang from the 14 to 16 November, 2014. This motivational programme was carried out as part of the Research Group's effort to assist the Orang Asli community in Raub. A total of 70 Orang Asli students travelled to UKM for the duration of the programme. The students were from SMK Tengku Kudin (40 students) and SK Satak in Raub (30 students). The Research Group worked with the Department of Orang Asli (JAKOA) and the Human Rights Commission of Malaysia (SUHAKAM) on this project.

The Research Group obtained the list of Orang Asli students in UKM from the Department of Student Services (JPPel), and 12 Orang Asli students accepted their appointment as Student Icons for the motivational programme. The appointments were created and endorsed by the Orang Asli student community owing to their understanding of the language, the culture and present way of life of the Orang Asli. Also, these factors could be noted as having a much greater impact than those for non-Orang Asli. The Student Icons adopted the role of facilitator in various teachings and learning activities throughout the course of the programme and developed friendships with the participants. This helped the participants to feel comfortable and to cooperate in all the activities. Furthermore, the Student Icons also acted as translators for the Orang Asli participants when the message communicated by the teachers was unambiguous or unclear. The Student Icons, therefore, played a significant role as mediator, facilitating effective communication between the organisers, teachers and participants of the programme.

This article discusses and outlines the significant role of the Student Icons and the overall programme by sharing their experience and transfer of knowledge.

LITERATURE REVIEW

As highlighted in the introduction, despite the efforts of the Malaysian Government in improving the standard and level of education among the Orang Asli, issues remain which bedevil the success of these efforts. Many scholars have examined these issues and provided recommendations. The following paragraphs discuss the issues and recommendations proposed to mitigate potential barriers that will enable a successful initiative to improve the standard and level of Orang Asli education.

It is important to mention that most scholars identify communication as being one of the main criteria for a successful teaching and learning process. Educationalists agree that the teaching and learning process encompasses positive communication between both students and teachers and is not merely a one-way flow of knowledge from teachers to students (Abdullah et al., 2013, p.122). It contains interaction between teachers and students and effective interaction with teaching tools and methods used to attain definite Orang Asli contact (Haron & Boon, 1985). Abdullah et al. (2013), in the study entitled "Teaching and Learning Problems of Orang Asli Education", pointed out that there are many factors responsible for the educational setback of Orang Asli. These include, among others, the existing language barrier between indigenous Orang Asli children and non-indigenous teachers, culture, poverty, the availability of teaching and learning facilities, the influence of dropout friends and early marriage (Abdullah et al, 2013). The replies received from the Orang Asli students during the interview process carried out by Abdullah et al. (2013) showed that some teachers (non-Orang Asli) within the Orang Asli community were unable to establish effective communication with students during the teaching process. Furthermore, according to this study, some students could not comprehend the lessons delivered by the teachers in the Malay language. This is the medium of instruction given that most of the teachers are Malay and do not speak indigenous languages.

In other words, most teachers within the Orang Asli communities are not able to effectively communicate in any of the Orang Asli languages such as Temiar. Furthermore, most teachers have little knowledge of the customs and culture of the Orang Asli community that could potentially play a vital role in improving the standard of education in the area.

Nor, Roslan, Mohamed, Hassan, Ali and Manaf (2011, p. 45), reported poor academic performance among Orang Asli students in both the Primary Achievement Test results and at the Secondary Certificate level. The situation could be attributed to the inability of the Orang Asli students to follow or understand the lessons. This may also be attributed to the lessons being taught in the Malay language, inadequate school facilities, the educational system itself, the curriculum being above their level and teachers who are mostly non-Orang Asli and who are not familiar with the socio-cultural needs of the Orang Asli (Nor et al., 2011, p. 52).

Comparable results were observed for a programme initiated by the Department of Orang Asli Affairs (JHEOA), currently known as JAKOA. Their teaching staff were not adequately trained and therefore possessed little knowledge of the Orang Asli; the Malay teachers (non-Orang Asli) at the central primary schools had limited knowledge of Orang Asli culture and traditions (Asian Indigenous & Tribal Peoples Network, 2008). According to Adnan and Saad (n. d.), teachers of Orang Asli students need a certain level of skills and

proficiency in their students' mother tongues to encourage and intensify progressive intercultural exchange.

In a related development, recent research by Wahab, Mustapha and Ahamd (2016, p. 371) revealed that the main problem associated with the educational backwardness of the Orang Asli community is poor interaction between the non-Orang Asli teachers and the Orang Asli students. This caused poor understanding and apprehension of lessons, leading to signficant exam failure. Teaching and communicating in a language that is alien to Orang Asli students requires careful consideration regarding planning, application and evaluation, and teachers should be trained in indigenous teaching (Wahab et al., 2016, p. 371). Wahab et al. (2016, p. 372) recommended that applying native languages and cultures of an indigenous society (in this case, Orang Asli society) in the classroom teaching environment would greatly help to obtain good results in academic education, improve school attendance, promote positive behaviour of the students and reduce the number of student dropouts.

Renganathan (2013) highlighted the problems that Orang Asli students face in learning English in schools. He stated that while teachers in Malaysian schools are trained to teach English as a second language, most of these teachers find it problematic to acclimate their teaching to accommodate the Orang Asli students' background and situation. He stressed that to improve learning among Orang Asli

students, the teacher needs to be trained in various techniques and methods due to the language and cultural differences in order to enable Orang Asli students to benefit from the lesson (Renganathan, 2013, p. 150).

A similar problem was also observed in the Indigenous Australian community. There is an enormous collection of work and evidence that advocates that non-indigenous teachers are not accustomed to teaching indigenous children. Notwithstanding their sincere intentions and commitment towards teaching, Santoro, Reid, Crawford and Simpson (2011, p. 65) opined that most of the teachers had insufficient understanding of suitable pedagogy and the complexities of indigenous cultures, character and knowledge. Furthermore, there is a severe lack of knowledge and understanding of students' out-of-school living conditions and lives, the knowledge of which can facilitate or impede the students' educational success. Children are coming to school who have not had enough sleep at night or who have not had breakfast and are potentially hungry (Santoro et al., 2011, p. 69). As a result, the students cannot concentrate in class, and their teachers who are non-indigenous have no idea why. More so, there are non-indigenous staff in schools and universities whose teaching and course materials for their respective subjects are designed with little or no input from indigenous practitioners (Santoro et al., 2011, p. 73).

To address the problems as highlighted by Santoro et al. (2011), it is evident that there is a need to involve indigenous teachers in teaching and in the overall

learning process for indigenous people. This is because teachers who have grown up and completed their schooling as 'indigenous' learners speak the same common language of indigenous students and have a wealth of experience and knowledge about the pedagogy that is likely to be successful for indigenous students. They understand indigenous world views and have first-hand experience of the challenges facing indigenous students in mainstream schooling systems. It is further suggested that indigenous teachers can potentially play important roles as educators and mentors to non-indigenous teachers and in pre-service teacher education.

As the primary outcome from many of the studies conducted in Australia and Malaysia on the challenges and barriers faced by the current education system for indigenous people, several opportunities as discussed, exist to enhance the educational process for indigenous people (including the Orang Asli). These include involving indigenous teachers or facilitators as mentors, role models and educators, thereby improving the teacher-student relationship and continual learning process throughout the students' academic life.

METHOD

Demographic Analysis of Orang Asli Student Icon

The Orang Asli Student Icons included three males and nine females as listed in Table 1 and shown in Figure 1. All 12 Student Icons were from different sub-ethnic groups; eight were Jakun, with one person each from Semelai, Jahut, Kuala and Temuan sub-ethnics, as shown in Table 2 and Figure 2. Because of the diversity of these sub-ethnic backgrounds, the Student Icons could use different approaches in communicating with the Orang Asli participants.

Table 1
Gender of Orang Asli Student Icons

Gender	Number
Male	3
Female	9
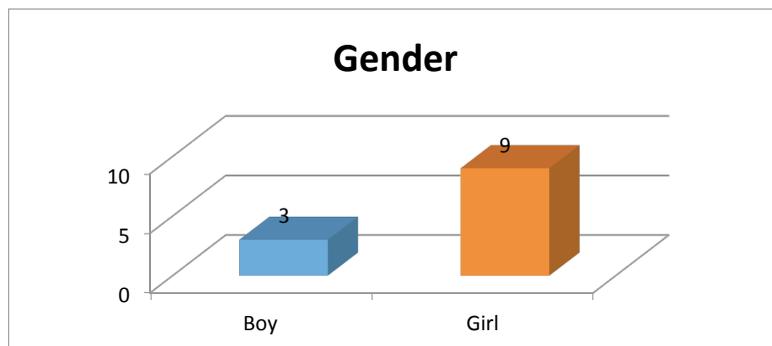
Figure 1. The Orang Asli Student Icons included three males and nine females

Table 2
Sub-Ethnic of Orang Asli Student Icons

Sub-ethnic	Number
Kuala	1
Semelai	1
Jakun	8
Temuan	1
Jahut	1
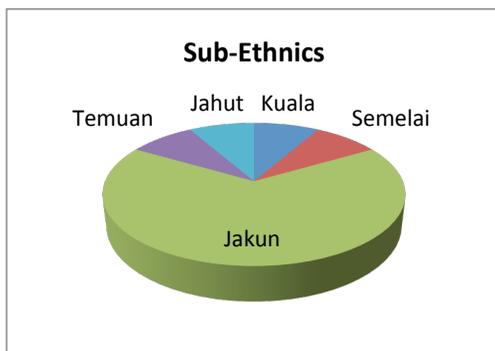
Figure 2. Sub-ethic group distribution

In addition to the ethnic differences, the level of diversity was apparent based on the differences in each Student Icons' respective field of study. As shown in Table 3 and Figure 3, four Student Icons were studying in the Faculty of Economics and Management (FEM), four in the Faculty of Science and Technology (FST), three in the Faculty of Social Sciences and Humanities (FSSH) and one in the Institute for Environment and Development (Lestari). The level of diversity of their respective fields of study enhanced the value of the programme, as each Student Icon applied a high degree of interest in sharing their experiences in the different fields. One of the benefits of the programme was that it enabled those participating in the programme to study at UKM or any other university of their choosing.

Table 3
Faculties of Orang Asli Student Icons

Faculty	Number
Faculty of Social Science and Humanities (FSSH)	3
Institute of Environment and Development (Lestari)	1
Faculty of Economic and Management (FEM)	4
Faculty of Science and Technology (FST)	4
Jahut	1
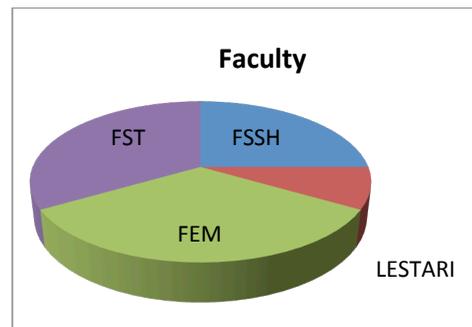
Figure 3. Distribution by faculty

Furthermore, their capability was not only in the diversity of their areas of specialisation but additionally in the various levels of their studies. Table 4 and Figure 4 show that two of the Student Icons were postgraduate students, while the rest were undergraduates. The difference in their level of studies assisted them to combine their knowledge and experience in teaching and learning, in interacting with the Orang Asli participants.

Table 4
Study levels of Orang Student Icons

Study Level	Number
Undergraduate	10
Postgraduate	2
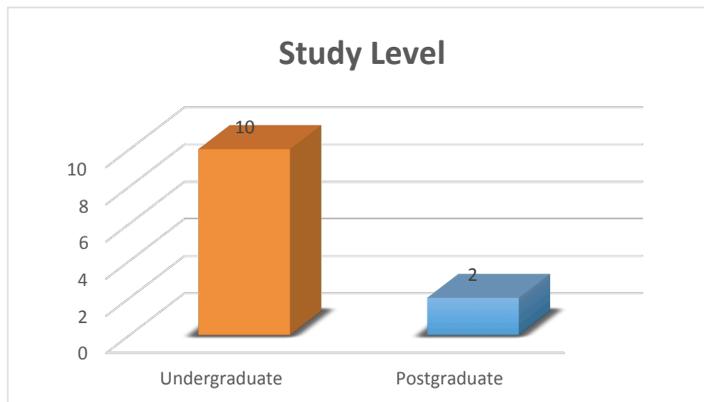
Figure 4. Nature of studies of Orang Asli Student Icons

Objectives

In consideration of the challenges and barriers (refer to Section 2), a key outcome of the programme was to confirm the effectiveness of Orang Asli Student Icon and how using Orang Asli students as icons could enhance the process of learning among Orang Asli students as it enabled easy and quick building of rappot between students, teachers and facilitators.

The 12 Orang Asli Student Icons were appointed to facilitate the teaching and learning process and to ensure effective and plausible communication was expertly executed with Orang Asli students. All 12 Orang Asli Student Icons played a significant role in creating and fostering enthusiasm among the participants to enhance their motivation and confidence in developing themselves through their studies. This article discusses and outlines the significant role of the Student Icons and the overall programme by sharing their experience.

Questionnaire

A survey questionnaire to obtain the Student Icons' perception of their roles was developed and distributed to the 12 Student Icons appointed to participate in the programme. The questionnaire was considered the most suitable tool to assess the perceptions and opinions of the Student Icons and the extent of their role in the

Orang Asli education programme. The questionnaire comprised six questions:

i. Why did you accept the appointment as a Student Icon for the Orang Asli Students Motivational Programme?

ii. What role have you played as a Student Icon in this programme?

iii. How did you play a role in increasing the motivation of the participants of this programme? Give examples, if necessary.

iv. How does your role as a Student Icon assist you in improving your soft skills and enhancing your existing knowledge?

v. Do you agree that this programme should only involve Orang Asli Student Icons as mentors? Why?

vi. Do you agree that Icons who are non-Orang Asli would not be able to play the role as effectively as played by Orang Asli Student Icons? Why?

Another survey questionnaire was developed to collect feedback from the participants relating to the effectiveness of the overall programme and whether the programme helped to increase their own personal motivation to pursue further studies at a higher level. The questionnaire was distributed to participants on the final day of the programme, 16 November, 2014. The methodology that was adopted also provided relevant information to the participants before they answered the survey questions. This was primarily to ensure that the participants fully understood the context and meaning of the questions before completing the survey.

FINDINGS AND DISCUSSION

Perspective Analysis of Orang Asli Student Icons

As discussed in Section 3, the primary objective of this article was to examine the perception of the Student Icons regarding their respective roles in facilitating the learning process and advancing and strengthening education among the Orang Asli participants of the programme. The results of the survey questionnaire obtained from the Student Icons are as follows.

1. Why did you accept the appointment as a Student Icon for the Orang Asli Students Motivational Programme?

Table 5
Reason(s) for accepting the appointment by Orang Asli Student Icons

No.	Reason	No. of Icon
1.	Help in advancing Orang Asli education	5
2.	Give encouragement and create awareness about education among the Orang Asli	2
3.	A sense of responsibility towards the community itself	2
4.	Be an example to the Orang Asli community	1
5.	Provide service to the community	2
6.	Prove the ability of the Orang Asli	1
7.	Show pride in being Orang Asli	1
8.	Build new friendships	1
9.	Improve own soft skills	1
10.	Gain new experience	2
11.	Help the organisers	1

Table 5 shows 11 reasons why the Student Icons accepted their appointment, with several providing more than one reason.

Table 5 shows that most of the Student Icons accepted the appointment to help and develop the Orang Asli community in the field of education. Also, they wanted to serve their community and their nation. This intention was further evidenced in one of the answers provided by a Student Icon:

I accepted the appointment as an Orang Asli Student Icon for this programme because I want to help and promote education among Orang Asli since we are still far behind in the field of education. This is because the percentage of students at the undergraduate and postgraduate levels are estimated as being less than 1% of the total population of the Orang Asli community in Malaysia. Hence, our responsibility as Student Icons is to help our community regarding education.

The above response corresponds with the Abdullah et al. (2013) study, which found that only 880 Orang Asli students completed their tertiary education between 1971 and 2010. This clearly demonstrates how the Orang Asli are indeed far behind with regards to education compared with other ethnic groups in Malaysia.

The Student Icons accepted the appointment to serve as role models, to prove the ability of Orang Asli and to show pride in their ethnicity. It was apparent that they accepted the appointment to boost confidence among the participants. This role was a tremendous contribution to the benefit of the Orang Asli. Furthermore, as observed in the study by Abdullah et al. (2013), the main reason affecting the poor showing in education among the Orang Asli is the influence of student dropouts; the students who drop out influence those still in school to do the same. Therefore, it is evident that having Orang Asli educators and facilitators

involved in teaching and learning activities or in similar motivational programmes carried out among the Orang Asli will only boost the confidence of Orang Asli students, helping them to focus on their studies and climb the academic ladder while following in the footsteps of their mentors.

There were also Student Icons who wanted to improve their skills by participating in the programme. One response was, "to gain experience and develop my soft skills." Another was, "I accepted the appointment as an Orang Asli Student Icon for this motivational programme because I wanted to improve my soft skills. Also, to assist the participants from SK Satak and SMK Tengku Kudin by sharing my experiences as a student of UKM." Santoro et al. (2011) explained that mature indigenous learners who had completed their schooling as 'indigenous' learners speak the same language as indigenous students and have a wealth of experience and knowledge about pedagogy that is likely to benefit indigenous students. Thus, among the respondents were those who pointed out that they accepted the appointment to gain experience and to improve their skills. For if the Student Icons are to be appointed as teachers and facilitators someday, they would need to acquire a wealth of experience and knowledge about pedagogy to share with their Orang Asli students. This was echoed by Santoro and the other studies mentioned above.

2. What role have you played as a Student Icon in this programme?

Table 6
Role(s) of Orang Asli Student Icons

No.	Reason	No. of Icon
1.	Facilitator and Mediator between the organisers and Orang Asli students	1
2.	Building a relationship such as brother and sister/family	2
3.	Leading a group	2
4.	Guiding the Orang Asli	2
5.	Being the emcee	1
6	Being an example of success to the Orang Asli	3
7.	Helping the programme to run smoothly	2
8.	Sharing knowledge, leading and monitoring the movement of students	1
9.	Providing motivation/encouragement/inspiration so that the Orang Asli students would continue with their schooling, considering themselves no different from other communities	7
10.	Understanding the existing problem within the Orang Asli community	1

Table 6 shows that there were 10 roles for the Student Icons. The 22 responses emphasised that most of the Student Icons played more than one role as a Student Icon for this programme.

Most of the Student Icons responded by saying that their role was to motivate, encourage and inspire the participants to continue their studies and to be more successful in the future. For example, one response was, "I inspired the Orang Asli students to succeed in their studies in order to help both their parents and the indigenous peoples." Another comment was:

> My role was to act not just as a counsellor or an Icon, but rather to build a relationship as between a brother and sister, provide encouragement and advice for them to keep learning and be more competitive while at school, and to consider themselves no different

from other societies while being proud to have been born Orang Asli.

The above responses confirmed what Adnan et al. (n. d.) proposed, that teachers of Orang Asli need some skills and proficiency in their students' mother tongue to encourage these students and to intensify continuous learning and intercultural exchanges.

The Student Icons responded by saying that they played a pivotal role in being an example of Orang Asli success. They also played a role in guiding the participants, establishing friendships with the participants and trying to understand the problems faced by the Orang Asli. Furthermore, the Student Icons played a role in facilitating the smooth running of the overall programme.

3. How did you play a role in increasing the motivation of the participants of this programme? Give examples, if necessary.

Table 7
Motivational approaches adopted by Orang Asli Student Icons

No.	Reason	No. of Icon
1.	Storytelling and sharing life experiences, particularly success in furthering my studies at university	7
2.	Providing advice and encouragement to continue studies	7
3.	Creating awareness on the importance of education	2
4.	Increasing motivation through cultural performances	2
5.	Cooperating with the Orang Asli participants	1
6.	Encouraging participants to come forward	1
7.	Observing the situation and understanding the problem	1
8.	Showing good values	1
9.	Teaching how to communicate well	1

Table 7 showed that there were nine approaches that the Student Icons applied to motivate participants. The 23 responses reflected that several Student Icons adopted more than one method.

It is evident that most of the Student Icons took to storytelling and sharing their life experiences, especially about the success they achieved by furthering their studies at university and encouraging the participants to do likewise. One of the attributes of a good teacher is knowing which method is best for teaching students. For instance, while some students may be visual learners and some auditory, others may be better at reading and writing, or even kinaesthetic learning. A teacher can correctly and quickly identify which method is the best for a student if he or she happens to know the culture, custom and traditions of the student. In the same way, the Student Icons identified storytelling and sharing life experiences as the most appropriate method of imparting knowledge and encouraging their fellow Orang Asli. This was possible because they were part of the community and well acquainted with the customs, traditions and way of life of the Orang Asli.

One of the answers was, "I chose to share a terrible experience… I had done wrong and failed to gain anything but with effort and perseverance, I was able to bounce back from failure." Not limited to sharing experiences, the Student Icons also used this opportunity to raise awareness of the importance of education for a better future by emphasising that Orang Asli should change their attitudes towards education.

Furthermore, seven of the Student Icons used the motivational programme as a platform to provide advice and encouragement to the participants to continue their education to the highest level. One Icon used the method of "increase[ing] the motivation of the participants by increasing their spirit of desire to continue their studies." Examples like this received positive reaction from the Orang Asli students. This is further emphasised in another response, "I found that they feel good and want to continue their studies … they were excited when I cited that many Orang Asli have succeeded in pursuing studies at universities and now stand at par with those from other communities."

There were various other methods adopted by the Icons, as depicted in Table 7. Some responded that another way that they chose was to establish confidence among the participants to pose questions and to improve communication. As reported by Wahab et al. (2016) in his study, one of the problems encountered by the non-Orang Asli teachers was difficulty in elucidating certain terms to Orang Asli students and making them understand the context due to the language barrier. Thus, having Student Icons to facilitate the motivational programme greatly helped the Student Icons to pose questions and to better communicate with the Orang Asli students. This is because they spoke the same language. Confidence

and active communication is essential for motivating Orang Asli students.

4. How does your role as a Student Icon assist you in improving your soft skills and enhancing your existing knowledge?

Table 8
Skills and knowledge acquired from the role as a Student Icon

No.	Reason	No. of Icon
1.	Increase/Improve communication skill	7
2.	Enhance leadership	4
3.	Enhance collaboration/teamwork	4
4.	Increase level of confidence	3
5.	Learn how to organise a programme efficiently	1
6.	Improve social aspect and accountability	1
7.	Irrelevant answer	3

Table 8 shows that a total of seven Student Icons responded that their skills improved communication among the participants. Most of the Student Icons emphasised communication, as this was the one most important aspect in helping to shape the future of the participants. One of the Student Icons stated that "weak or inadequate communication nowadays is a cause of difficulty in getting a job." Through this programme, the Student Icons themselves were inspired to be more confident in speaking in front of audiences.

Several of the Student Icons applied some other aspects of their soft skills. For example, four Icons responded that their leadership qualities and teamwork were strengthened among the Orang Asli participants. These aspects are significant in shaping future leaders. The Student Icons also paid attention to other kinds of soft skills, particularly in raising the confidence of the participants to move forward in life.

One of the answers emphasised, "the experience we have received in facilitating this programme has improved our knowledge and soft skills," while another stated, "participating in a variety of activities helps develop the potential within participants and expertise within Student Icons."

5. Do you agree that this programme should only involve Orang Asli Student Icons as mentors for the participants?

Table 9
Perception of the involvement of only Orang Asli Student Icons as mentors for the participants

No.	Reason (Agree)	No. of Icon
1.	Provides evidence and gives encouragement that Orang Asli too can be successful	8
2.	The similarity of culture, customs, background and life experience allow effective communication and interaction between Student Icons and participants	6
3.	Facilitates communication/helps students to communicate well	5
4.	Share success	1
5.	Share experiences	1
6.	Opportunity to assist one's community	1

Table 9 shows that all 12 Student Icons unanimously agreed that the programme should involve Orang Asli Student Icons as mentors to the participants. Icons believed that the Icons represented Orang Asli success. With this example in mind, the participants would be more enthusiastic and realise that they too could be just as successful. One Icon explained that Orang Asli mentors could make a significant contribution to their community i.e. Orang Asli Icons can motivate and encourage Orang Asli students to succeed in their studies to the highest level, like the Icons had themselves. Furthermore, they believed that the Orang Asli Icons could make a greater impact on Orang Asli students as they understood the current context of Orang Asli better themselves.

As many as six Icons stated why it was better to involve Orang Asli, saying they came from the same culture, tradition and background and shared many life experiences. This would elicit easier acceptance from students while facilitating better interaction, approach and partnership. In one response, an Icon reiterated that the involvement of the Orang Asli themselves

was necessary because of "the similarities between the Icons and Orang Asli students. Therefore, discussion with Orang Asli students in the programme is more open because they consider the Icons to be members of their family." Another stated, "In addition to cultural similarities, participants are more comfortable sharing their concerns with the Orang Asli Icons because the Icons had also faced the same problems at some point." Therefore, the Student Icons' approach towards the Orang Asli students may be more beneficial as they were already aware of the customs and beliefs as well as the perceptions and attitudes of Orang Asli in general.

The involvement of the Orang Asli as Student Icons is essential because of the ease of communication with the participants. A total of five Icons confirmed this in their response. According to the five Icons, participants can share experiences, share their success stories and inculcate a sense of responsibility in relation with the Icons. In this regard, the Icons hoped to inspire them to follow their advice to succeed. One of the Icons stated, "Maybe by seeing the success of the Icons, by setting foot into

their university, we can inspire them also to strive to get a place in any university or college."

The above responses from the Student Icons tally with what Abdullah et al. pointed out in their study, that the main problems associated with the educational setback of Orang Asli are predominantly language barriers and differences in culture and customs between the teachers and the Orang Asli students. Other studies like Santoro et al. (2011), Wahab et al. (2016), Adnan et al. (n. d.), Nor et al. (2011) and Renganathan (2013), featured under Section 2 of this article, unanimously acknowledged this fact. Thus, most of the teachers who are non-indigenous find it difficult communicating with indigenous students such as the Orang Asli students and are not accustomed to their customs and traditions.

6. Do you agree that icons who are non-Orang Asli students would not be able to play the role as effectively as played by Orang Asli Student Icons? Why?

Table 10
Perception of the involvement of Non- Orang Asli Student Icons

No.	Reason (Agree)	No. of Icon
1.	Non-Orang Asli students do not understand the life, situation, problems, desires, feelings and traditional beliefs of the Orang Asli	4
2.	The Orang Asli can inspire and make the participants realise the importance of education	1
3.	Participants would be more comfortable to communicate and share experiences with Icons who are also Orang Asli	2
4.	Orang Asli students have more sense of responsibility to help other Orang Asli	1
5.	Orang Asli students are more sensitive, easy to understand and influence the community	1
6.	Every individual has a different approach, but Orang Asli have the advantage because they belong to the same ethnic community	1
	Reason (Disagree)	
1.	Non-Orang Asli should also come together to help the Orang Asli	1
2.	Everybody irrespective of ethnic background could perform at the same level	1
3.	Everyone has different skills and knowledge to be shared	1
4.	Every programme, if done responsibly and with sincerity will succeed, the key is cooperation	1
5.	Every human being has advantages and disadvantages	1

Table 10 shows six reasons given by those who agreed and five reasons given by those who disagreed with the statement "If Icon selection were done among non-Orang Asli students, they would not be able to play the role as effectively as Orang Asli Icons."

One of the Student Icons was adamant about the ability of Orang Asli Student Icons

to help other Orang Asli. Their question was, "If this programme involves Orang Asli students, why should Student Icons be appointed from among non-Orang Asli?" The Student Icons also confirmed via the questionnaire that Icons from among non-Orang Asli students would not understand the problems faced by Orang Asli students as they did not understand the customs and beliefs of the Orang Asli. The Icons also reiterated that the programme was used to maximise assistance to their people rather than to the non-Orang Asli. However, this stance does not question the ability of the non-Orang Asli as the Student Icons merely believed that the impact of the partnership would be better if Orang Asli Icons were involved.

On the other hand, there were others who had an alternative perspective on this matter. One of the Icons disagreed that non-Orang Asli students could not play the role of Orang Asli Student Icon effectively. This Icon believed that "every human being must be able to carry out the duties assigned to them to the best of their ability. Although different regarding religion and culture, it cannot obstruct the relationship between people." Several other Icons supported this view, believing that "non-Orang Asli students exhibit and perform their duties in the best possible manner and can lead the Orang Asli students." It indirectly affirmed the view of these Icons that every individual has advantages and disadvantages that can be of benefit to others.

Therefore, it can be concluded that although the Orang Asli Student Icons had greater capability in performing the role, the ability of non-Orang Asli students to perform the same role could not be denied. However, given a choice, Orang Asli Icons should be considered in preference to non-Orang Asli Icons in teaching the community.

Perspective Analysis Among Orang Asli Student/Participant

A survey questionnaire was developed to collect feedback from the participants relating to the effectiveness of the overall programme and whether the programme helped to increase their own personal motivation to pursue further studies at a higher level. From the replies received, 69 participants agreed and strongly agreed that they felt motivated to continue their schooling following the programme. Furthermore, 69 participants also agreed and strongly agreed to pursue their studies to a higher level in the forthcoming year.

The programme was a success as all the participants were satisfied with it. All the participants provided positive comments, and no negative comments were received. Most of the participants replied that overall, the programme had been fun and that they were more than happy to have been given the opportunity to participate in the programme. Here is a sample of the comments received: "The programme is very exciting, and I'm happy because I made a lot of friends"; "Everyone in the hall was very kind and affectionate towards us"; "I'm interested in this programme because the programme is the best and may serve as a lesson for me. The programme contained a lot of activities

that were fun, and all the Student Icons made me feel excited and motivated during this programme"; and "This programme has inspired me to continue my studies."

CONCLUSION

To address the challenges and barriers to education experienced by the Orang Asli, indigenous teachers should be involved in the teaching and learning process undertaken by Orang Asli students. This is because teachers who have grown up and completed their schooling as 'indigenous' learners speak the same language of indigenous students and have a wealth of experience and knowledge about the pedagogy that is likely to be successful for indigenous students. They understand indigenous world views and have first-hand experience of many of the challenges faced by indigenous students in the mainstream schooling systems.

In this motivational programme, the role of indigenous teacher was played by 12 Orang Asli Student Icons. All the Orang Asli Student Icons played a significant role in advancing and strengthening education among the Orang Asli participants of the programme. The perception of the Icons, as highlighted in this article, is that the Orang Asli participants cooperated and demonstrated a positive response when assisted by other Orang Asli. It was further shown that the Orang Asli Student Icons played an enormous and significant role in facilitating the teaching and learning process of the Orang Asli participants by eradicating all the barriers and challenges identified and discussed in Section 2 of this article.

The effectiveness and success of this programme could be measured from the positive feedback received from the 12 Orang Asli Student Icons and the 69 Orang Asli participants. To collect quantifiable information in support of the programme, the programme organiser contacted SMK Tengku Kudin to obtain the actual number of Orang Asli students who continued their schooling to a higher level when the school opened in January of the following year. From a total of 70 students, 61 had continued with their studies[1]. The actual dropout rate was approximately 13%, with 87% of the participants of the programme held at the university continuing their education in secondary school.

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[1]Letter from SMK Tengku Kudin dated 5 March, 2015

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Impact of Commuter Families on Adolescent Development: An Evaluation of the Adolescent from Peninsular Malaysia

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ABSTRACT

This study attempted to address the question concerning the influence of commuter families on adolescent school performance using the proposed Model for Adolescent Development Among Commuter Families (MADCF). We investigated whether the adolescent problem mediates the relationship between parental readiness and adolescent school performance, and clarified the moderating effect of gender. The survey data were drawn from 434 respondents (adolescents-parents) in Malaysia. The results indicated that the adolescent externalising problem partially mediated the relationship between parental readiness and adolescent school performance. The model accounted for 21% of the variability in adolescent school performance. The moderator findings presented that gender moderates the causal effect of parental readiness and the adolescent externalising problem with respect to adolescent school performance. This study clearly shows the importance of parental readiness, and that the results are in line with the proposed mediation and moderation effects. The model proposed by this study was strongly supported.

Keywords: Parental readiness, commuter families, adolescent development

INTRODUCTION

The idea of 'commuter families' originated from the lifestyle of military families (Grestel & Gross, 1983). However, in recent years, an increasing number of married couples from other occupational sectors, such as professional, public service

and civilian populations who commit to a commuting lifestyle have become more common for various reasons, such as career opportunities and economic development. The term, 'commuter families', describes the phenomenon of a married couple who agree to have their own careers and maintain two residences in different geographical locations and are separated from each other for at least three nights per week.

In Malaysia, commuter families are defined as a weekend family by means of one of the married couple staying far away from the nuclear family and only meeting the family once a week, twice a month, once a month etc. (MWFCD, 2010). The increasing trend for such a lifestyle in Malaysian society indicates that commuter families are becoming more common, especially among young couples. According to previous studies, among the most common reasons that married couples commit to a commuter lifestyle, either voluntarily or imposed, are the increasing number of households with dual-career couples, financial and societal demands, the desire to maintain or enhance career, deployment by employer, potentially higher income and better opportunities for career advancement (Ferk, 2005; Norlila, 2011).

This matter has become a concern in Malaysian society because the lifestyle of commuting families is entirely different from and contrary to the conventional model of family in Malaysia Abd Rashid, Hussin, & Jubah, 2006). As reported by Rahim et al. (2006), most Malaysians have a traditional family consisting of the father as the primary

breadwinner and the mother, who plays the main role of caregiver. Even for dual-career families in Malaysia, gender ideology strongly affects parental role in the family function and child development.

Due to the above reasons, the first research into commuter families conducted in Malaysia was to investigate the challenges faced and the impact of such a lifestyle on the health, well-being and quality of life of families (Norlila, 2011). The study revealed that 86.6% of the respondents (commuters) had a negative perception of commuter lifestyle. Commuters with a negative perception of their lifestyle often manifest psychosocial problems, such as depression, stress or aggression. According to the findings, commuters have a negative perception and psychosocial problem because they were less prepared to commute. Nonetheless, there was a significant relationship between commuters' psychosocial outlook and child-rearing at home. The findings showed that commuters with a psychosocial problem response spent the least time in discussion with their children. Quality of discussion with children relating to issues, such as education, personal problems, ambition and friends was lacking.

The findings of this study have raised the concern of researchers in Malaysia. Parents are the first educators of their children and play an important role in their development, especially during their adolescence (Erikson Theory, 1959; Bronfenbrenner Model, 1979). Psychosocial factors affecting parents greatly influence a child's behaviour and academic performance (Schwab et al.,

1995; Finkel, Kelly, & Ashby, 2003; Kessler et al., 2005; Pugh & Farell, 2012). Therefore, readiness to commute is important in ensuring a positive psychosocial outlook among commuters, which should lead to better child-rearing, family function and child outcome. Lack of family readiness and the degree of preparation prior to moving may affect family outcomes and the work performance of spouses (Palmer, 2008). Previous research suggested that parental stress and pathology from the separation of families are expected to negatively impact on a child's development including academic achievement and behavioural problems (Kelly et al., 2001; Barry et al., 2005). Preparation and degree of readiness are believed to smoothen the transition and family functions, and, indirectly influence the child's outcome (Yonezawa, 2000; Burrell, 2006; Dumka et al., 2009; Kiernan & Mensah, 2011).

Present Study

This study sought to investigate the impact of commuter lifestyle on adolescent outcome among commuter families in Malaysia. Four main objectives were addressed by this study: (1) To provide an overall description of parental readiness to commute (cognitive, emotional, behavioural); adolescent problems (internalising problem, externalising problem and other problems); and adolescent school performance (curriculum and co-curriculum) among commuter families in Malaysia; (2) To assess the relation and influence between

parental readiness, adolescent problems and adolescent school performance; (3) To determine if adolescent problems mediate the relation between parental readiness and adolescent school performance; and (4) To examine the effect of gender as a moderator in the individual paths of the model. Finally, a simple Model of Adolescent Development Among Commuter Families (MADCF) is proposed at the end of the study.

METHOD

Research Design

A quantitative research design, which included conducting a correlational study and path analysis, was used in this study. The study was based on data obtained from two sets of questionnaire to gather information from adolescents (Youth Self-Report, 1991) and parents (Parental Readiness Inventory). The Pearson correlation test (SPSS) and structural equation modelling (SEM) were applied in the data analysis. Data were randomly collected from public secondary schools in Selangor, Malaysia. Selangor has been identified as the state with a dramatic increase in the number of commuter families in Malaysia (MWFCD, 2010; Norlila, 2011). The participation of the subjects (adolescent and parents) was voluntary and all information was kept confidential and used only for the purpose of research.

Participants

To be eligible for the study, participants had to be from commuter families. They were identified by school administrators.

In this study, commuter families were defined as families in which either the father or the mother or both the parents stayed separately from the nuclear family for at least three nights a week because of career commitment, and the particular family must have practised the defined commuter lifestyle for at least one year before the date of data collection. A total of 376 families were identified as commuter families, of which 239 families were willing and agreed to participate. After excluding incomplete data and potential outliers, 217 families (434 samples; parent-child dyads) were confirmed as reliable and were considered for further analyses. The summary of the participants' demographics is presented in Table 1.

Table 1
Descriptive statistics of demographics

Item		Frequency	Percentage
Gender (Adolescent)	Male	116	53.5
	Female	101	46.5
Age (Adolescent)	13	39	18.0
	14	32	14.7
	15	61	28.1
	16	36	16.6
	17	49	22.6
Race	Malay	124	57.1
	Chinese	37	17.1
	Indian	56	25.8
Commuter	Father	141	65
	Mother	32	14.7
	Father & Mother	44	20.3

Table 1 *(continue)*

Item		Frequency	Percentage
Years of Commute	1-4	128	59
	5-8	59	27.2
	9-12	19	8.8
	13-16	7	3.2
	17-20	4	1.8
Monthly Income (Family)	Less than RM4000	81	37.3
	RM4000-RM6000	68	31.3
	RM6001-RM8000	30	13.8
	More than RM8000	38	17.5

N=217; RM=Ringgit Malaysia

Instruments and Measurement

Instrument: Parental readiness inventory.

Three indicators of parental readiness were evaluated: (1) Parental cognitive readiness; (2) Parental emotional readiness; and (3) Parental behavioural readiness. The data were collected based on 32 items, which were instrument specific and developed to measure the level of parental readiness to commute among commuter families in Malaysia (Prochaska & Diclemente, 1983; Price & Horning, 1994; Van Breda, 1997; Dieryek, 2003; Norlila, 2011). Five stages of change were suggested by Prochaska and Diclement (1984) through the Transtheoretical Model. The model illustrates each stage as assessing an individual's readiness to act on a new and

healthier behaviour for a better lifestyle (Figure 1). The validity and reliability analyses were examined. Confirmatory Factor Analysis (CFA) was applied to determine the Average Variance Extracted (AVE) and the Construct Reliability (CR) of the study instrument, as shown in Table 2. The instrument for parental readiness showed a high AVE (more than 0.50), indicating high convergent validity (Fornell & Larcker, 1981); the instrument is reliable with a CR and Cronbach's Alpha of more than 0.70 (Hair et al., 2005).
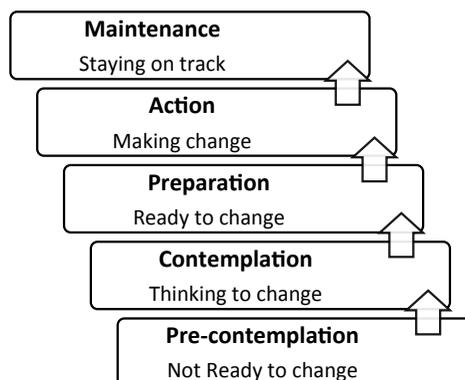
Figure 1. Stages of change (Prochaska & Diclement, 1984)

Table 2

Number of items, Cronbach's Alpha, Average Variance Extracted (AVE) and Construct Reliability (CR) of study instrument

Instrument	Indicator	No Items	Confirmatory Factor Analysis (CFA)-AMOS			SPSS
			Factor Loading	AVE	CR	Cronbach's Alpha
				0.564	0.792	0.734
Parental Readiness	Cognitive	12	0.61			
	Emotional	11	0.87			
	Behavioural	9	0.75			
				0.747	0.894	0.951
Youth Self-Report	Internalising	31	0.91			
	Externalising	30	0.76			
	Other Problems	30	0.76			

AVE=Average Variance Extracted; CR=Construct Reliability; N=217

Instrument: Youth self-report. The instrument for youth self-report, as developed by Achenbach (1991), was used to measure adolescents' problems, including 10 symptoms related to three major types of problem: (1) Internalising problem (anxious, withdrawn, somatic complaint); (2) Externalising problem (rule-breaking and aggressive behaviour); and (3) Other problems (social problem, thought problem and attention problem). The Youth Self-Report is a self-administered survey intentionally designed for adolescents aged from 11 to 18 for the purpose of measuring the emotional and behavioural problems among adolescents in a standardised format.

The Youth Self-Report is an established questionnaire and has been used in more than 23 countries represented by different cultural and socioeconomic conditions, such as Hong Kong, Australia, Iran, Japan, and Poland (Ivavova et al., 2007). There are a total of 112 items in the instrument of the Youth Self-Report, with 31 items assessing the internalising problem, 30 items assessing the externalising problem and 30 items assessing other problems. The confirmatory factor analysis (CFA) was applied to determine the average variance extracted (AVE) and the construct reliability (CR) of the study instrument, as shown in Table 2. The value of the validity and reliability of the construct was more than 0.70 and the factor loading for all the indicators was more than 0.50.

Instrument: School performance. School performance was measured based on the adolescent curriculum and co-curriculum achievement in school. The final examination marks (year 2012) and yearly average scores in the co-curriculum were kindly provided by the school administrator. The Malaysian Secondary School Grading System was used to measure adolescent school performance from Grade A to Grade E.

Confirmatory Factor Analysis

Validity and reliability analyses were used to determine the validity and reliability of the instruments. The confirmatory

factor analysis (CFA) was applied for each individual construct to determine the average variance extracted (AVE) and the construct reliability (CR) of the study instruments. Table 2 shows that both instruments had a high AVE (more than 0.50), indicating high convergent validity, and the instruments were reliable, with a CR of more than 0.70 (Fornell & Larcker, 1981; Hair et al., 2008).

Analytic Strategy

Analyses were conducted using the Statistical Package for the Social Sciences (SPSS) and AMOS (Analysis of Moment Structures). SPSS was first used for the reliability test, descriptive analysis and Pearson correlation test. The purpose of the correlation analysis was to confirm the significance of the relationship between each construct: parental readiness, adolescent problems and adolescent school performance. According to Baron and Kenny (1986), all the variables must be correlated with each other to establish a complete mediation effect among the variables. Therefore, the Pearson correlation test was used before the path analysis was employed to test the mediation effect.

Next, structural equation modelling (SEM-AMOS) was used for the second and third step of the path analysis. In SEM, the measurement model was developed based on the outcomes of the Pearson correlation test. The initial variable, mediator and outcome variable have to significantly

correlate with each other (Baron & Kenny, 1986). The discriminant validity and model fit were stated based on the measurement model. The purpose for testing the model fit was to confirm that the model proposed is acceptable with good fit and suitable for the hypothesis test. Lastly, the structural model was formed to examine the influence of parental readiness and the adolescent externalising problem on adolescent school performance and also to test the mediation (adolescent problem) and moderation (gender) effect on the Model of Adolescent School Performance Among Commuter Families (MASPCF).

RESULTS

Descriptions Analysis

We first present the results of the description analysis to provide descriptions of parental readiness, adolescent problems and adolescent school performance among commuter families in Malaysia. As noted in Table 3, 62.6% of the respondents' parents were in the preparation and ready-to-change stage; 33.2% were in the stage of making a change. Only a minority of the respondents' parents (4.1%) were still in the stage of contemplation and 0.5% of the respondents had adapted to the commuter lifestyle.

The descriptive table reveals that female adolescents scored higher for the internalising problem and attention

problem than the male respondents; this was expected for symptoms of somatic complaints, as illustrated by the mean and standard deviation value in Table 4. However, the male adolescents reported higher mean scores for the symptoms of the externalising problem, social problems and thought problems compared with the female adolescents. According to the results, only 28.6% of the respondents reported Grade A in the curriculum achievement and 31.8% reported Grade B (Table 5). For co-curriculum performance, Table 6 shows 50% of the respondents having achieved Grade B.

Table 3
Descriptive statistics for parental readiness

Descriptive Statistic	Score
Mean	84.99
Median	84.00
Standard Deviation	9.381
Minimum	60.00
Maximum	113.00
Percentile	
25th	79.00
50th	84.00
75th	91.00
Stages of Change	Frequency (Percentage)
Pre-contemplation	0 (0 %)
Contemplation	9 (4.1%)
Preparation	135 (62.6%)
Action	72 (33.2%)
Maintenance	1 (0.5%)

N=217

Table 4
Descriptive statistics for adolescent problem (Youth Self-Report)

Variables	Symptom	Male		Female	
		Mean	*SD*	Mean	*SD*
Adolescent Problem	Internalising Problem	17.3103	9.2890	17.7921	7.4998
	Anxious	8.0776	4.2038	8.8020	3.8653
	Withdrawn	4.8621	2.9632	5.1386	2.6155
	Somatic Complaints	4.3707	3.3765	3.8515	2.4265
	Externalising Problem	13.8190	9.7559	11.1782	5.7955
	Rule-Breaking Behaviour	4.9397	4.3862	2.9505	2.4429
	Aggressive Behaviour	8.8798	5.9112	8.2277	4.2588
	Other Problems	18.3276	8.7950	17.3960	7.7538
	Social Problems	6.5690	3.5928	5.7723	3.4231
	Thought Problems	6.8966	4.1439	6.4851	3.2973
	Attention Problems	4.8621	2.3844	5.1386	2.4901

N=217

Table 5
Descriptive statistics for adolescent school performance: Curriculum

Grade	Frequency	Percentage (%)
A (100 to 80)	62	28.6
B (79 to 60)	69	31.8
C (59 to 40)	64	29.5
D (39 to 20)	22	10.1
E (less than 19)	-	-
Total	217	100

N=217

Table 6
Descriptive Statistics for adolescent school performance: Co-curriculum

Descriptive Statistic	Score
Mean	70.29
Medium	70.00
Standard Deviation	5.157
Minimum	59.00
Maximum	83.00
Percentile	
25th	67.00
50th	70.00
75th	74.00

N=217

Correlational Analysis

A second series of analyses was conducted to evaluate the relationship between parental readiness, adolescent problem and adolescent academic performance. The Pearson correlation test was used to examine the relation between each indicator of the variables. A total of eight indicators were used to measure three variables in the study. The Pearson correlation test reported that two of the three indicators of parental readiness (emotional and behavioural) were not significantly related to the adolescent internalising problem (Table 7). In addition, the findings

revealed no significant relationship between adolescent other problems (social problem, thought problem, attention problem) with parental readiness and adolescent school performance. However, the adolescent externalising problem was significantly related to parental readiness and adolescent school performance and adolescent school performance was significantly correlated with parental readiness, as shown in Table 7.

Table 7
Correlation between parental readiness, adolescent behavior problem and adolescent school performance

Indicators	1	2	3	4	5	6	7	8
1. Cognitive (readiness)								
2. Emotional (readiness)	0.505**							
3. Behavioural (readiness)	0.451**	0.671**						
4. Internalizing Problem	-0.192**	-0.069	-0.062					
5. Externalizing Problem	-0.473**	-0.527**	-0.398**	0.479**				
6. Other Problems	-0.089	-0.063	-0.003	0.677**	0.411**			
7. Curriculum	0.298**	0.384**	0.299**	-0.191**	-0.364**	-0.059		
8. Co-curriculum	0.256**	0.362**	0.301**	-0.164*	-0.328**	-0.019	0.972**	

**correlation is significant at the 0.01 level (2-tailed)
*correlation is significant at the 0.05 level (2-tailed)

Correlation across sources was generally low (less than 0.49), except for the correlation between the adolescent externalising problem and parental emotional readiness (r=0.527), which was defined as moderate correlation according to Guilford's Rule of Thumb (Guilford, 1956). Although the adolescent internalising problem was significantly related to parental cognitive readiness and adolescent school performance, there was relatively low correlation (less than 0.20). In conclusion, based on the findings, it appeared that there was no appropriate relationship between parental readiness and adolescent school performance and two indicators of the adolescent problem (adolescent internalising problem and other problems). Therefore, the step to establish

the model for path analysis using SEM only focused on the relationship between three constructs: (1) Parental readiness; (2) Adolescent externalising problem; and (3) Adolescent school performance. Finally, the step to establish mediation was met since the initial variable (parental readiness) was correlated with the outcome (adolescent school performance) and mediator (adolescent externalising problem).

Measurement Model

Discriminant Validity. In the third step of the analysis, the measurement model was created by combining the three constructs (parental readiness, adolescent externalising problem, adolescent school

performance) with a total of six indicators (cognitive readiness, emotional readiness, behaviour readiness, aggressive behaviour, delinquency behaviour, co-curriculum achievement, curriculum achievement) in reference to the results of the correlational analysis. The measurement model is important for examining discriminant validity through the average variance extracted (AVE) and squared correlation coefficient. Discriminant validity refers to the extent to which a construct is truly distinct from other constructs and involves the relationship between a particular latent construct and other constructs of a similar nature (Brown, 2006). Table 8 presents the discriminant validity of the study instruments. The table shows that all the instruments had a higher average variance extracted (AVE) compared with the squared correlation coefficient (Hair et al., 2010). The correlation coefficient between the constructs was not more than 0.90 and the AVE for each construct was more than 0.50 (Fornell & Larcker, 1981; Hair et al., 2010).

Table 8
Average variance extracted and squared correlation coefficients

Construct	(1)	(2)	(3)
1. Externalising problem	0.700		
2. Parental Readiness	0.423	0.563	
3. School Performance	0.160	0.185	0.923

Average Variance Extracted (on the Diagonal); Squared Correlation Coefficients (on the off-diagonal)

Model Fit. A number of fit indices were used to test for the model fit (Byrne, 2001; 2010; Hair et al., 2010). The goal of examining the fit indices of a model is to determine how well it models the data. According to Hair (2010), a minimum of three to four fit indices are suggested for a model fit. Table 9 shows that all the values in the research model were reported to fit the recommended value. Therefore, the model suggested in this study is statistically accepted and indicates a well-fitting model.

Table 9
Fit indices

Fit Indices	Recommended Value	Model Value
Relative Chi-square	<=5.00	1.335
AGFI	>=0.90	0.951
GFI	>=0.90	0.981
CFI	>=0.90	0.996
IFI	>=0.90	0.996
RMSEA	<=0.80	0.039

Path Analysis

Structural Model. A similar analysis was conducted to examine the effect of parental readiness and the adolescent externalising problem with respect to adolescent school performance (Figure 2). Based on the analysis, parental readiness had a significant effect on the adolescent externalising problem (β=-0.65; p<0.01), and adolescent school performance (β=0.31; p<0.01),

whereas the adolescent externalising problem had a significant effect on the adolescent's school performance (β=-0.20; p<0.01). The findings indicated that the contribution of the adolescent externalising problem was slightly weaker compared with parental readiness. The model accounted for 21% of the variability in adolescent school performance explained by the model with the total effect being 0.44. The direct effect of the model was 0.31, while the indirect effect was 0.13.
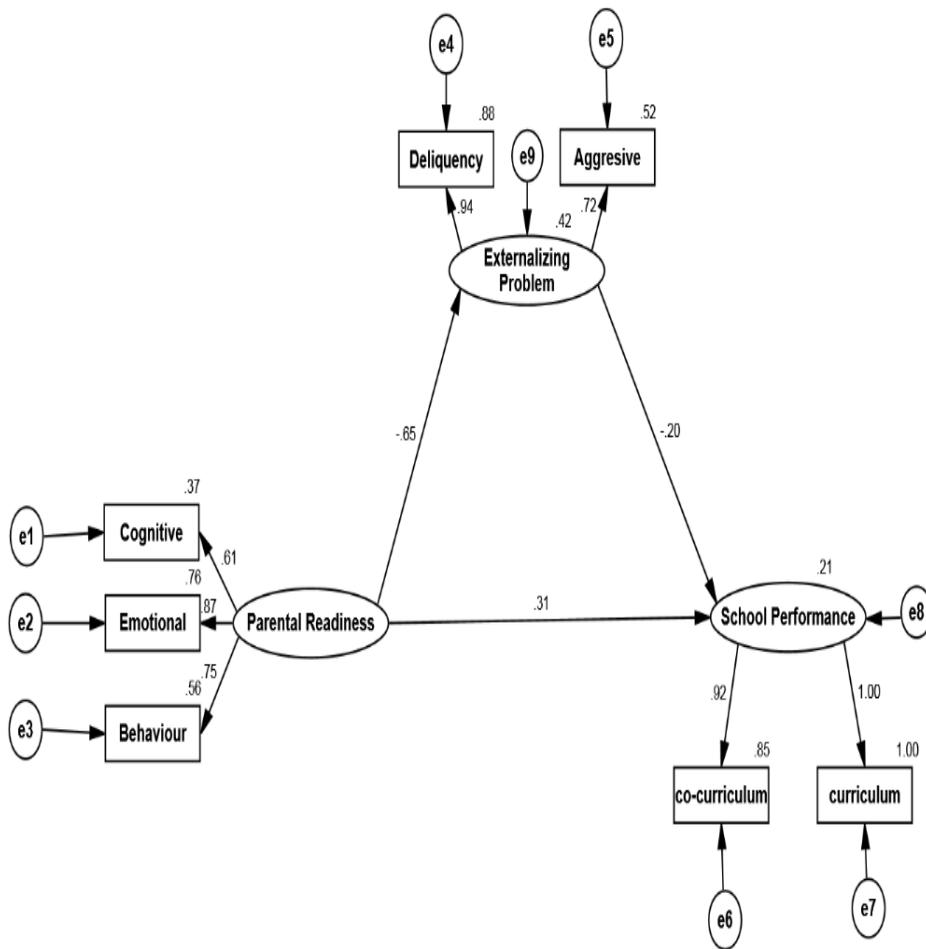
Figure 2. Structural model: Mediation model of adolescent development among commuter families (MADCF)

Mediation Model of Adolescent's School Performance. The objective of establishing the Mediation Model of Adolescent School Performance (MMASF) was to explore the role of the adolescent externalising problem as a mediator between parental readiness to commute and adolescent school performance (Figure 2). Table 10 shows that the standardised direct effect of parental readiness on adolescent school performance

in the direct model and mediation model were statistically significant (β=0.44 and 0.31, respectively). However, the effect of parental readiness on adolescent school performance in the mediation model was slightly less compared with the direct model. Therefore, we reasoned that the adolescent externalising problem partially mediates the relationship between parental readiness and adolescent school performance. Additional bootstrapping (AMOS) revealed that our results were in line with the research outcomes. The bootstrapping analyses showed that the adolescent externalising problem had a partial mediation effect on the relationship between parental readiness and school performance, strongly supporting the research outcomes. As shown in Table 11, bootstrapping for the mediation test indicated that the standardised direct effect of parental readiness on school performance in the direct model was significant and that the effect was significantly reduced in the mediation model with a significant standard indirect effect (SIE). Therefore, the partial mediation effect was accepted.

Table 10
Results of Mediation Test

Construct	Beta	p
Direct Model		
Parental Readiness → School Performance	0.44	0.00
Mediation Model		
Parental Readiness → School Performance	0.31	0.00
Parental Readiness → Externalising Problem	-0.65	0.00
Externalising Problem → School Performance	-0.20	0.04

Table 11
Bootstrapping for Mediation Test

Model	Beta
Direct Model	
Parental Readiness → School Performance	0.44**
Mediation Model	
Parental Readiness → School Performance	0.31**
Std. Indirect Effect (SIE)	0.13*

**significant at the 0.01 level (2-tailed)
 *significant at the 0.05 level (2-tailed)
 95% CI Bootstrap BC: LB=0.02; UP=0.27

Table 11
Moderation Test

Model	Beta
Parental Readiness → School Performance	
Male	0.36**
Female	0.19
Parental Readiness → Externalising Problem	
Male	-0.66**
Female	-0.38**
Externalising Problem → School Performance	
Male	-0.12
Female	-0.35**

** significant at the 0.01 level (2-tailed)

Moderation Test. The moderation test was used to examine the effect of gender as a moderator in the individual paths of the model. The results indicated that gender moderates the causal effect of parental readiness on school performance and the causal effect of the externalising problem on school performance, as shown in Table 12. According to the decision criteria recommended by Hair (2010), the findings showed that gender did not moderate the causal effect of parental readiness on the adolescent externalising problem.

DISCUSSION

The purpose of the study was to investigate the impact of the commuter lifestyle on the adolescent outcome among commuter families in Malaysia. To understand the impact of commuter families on adolescents, we first provided a description about the level of parental readiness to commute, adolescent development from the perspective of the adolescent behaviour problem and school performance. The findings suggested that the majority of the adolescents in this study scored B in their school curriculum and co-curriculum tasks. This was in line with the first study done in Malaysia, which reported that children in commuting families had been experiencing difficulties in co-curricular achievement since the family adopted the commuting lifestyle (Norlila, 2011). This clearly indicated that the lifestyle of commuter families directly and indirectly influenced adolescent educational achievement (Dumka, 2009). School performance and achievement are important in the development of youth to determine their future, especially their future career (Masten & Coatsworth, 1998; Elder & Conger, 2000). The study also argued that adolescents potentially experienced the externalising problem, internalising problem and other problems including social, attention and thought problems. The overall findings indicated that the mean scores of the adolescent

problem in this study were higher than in the referred samples provided by Achenbach (1991). A preview of the research showed that the lifestyle of commuter families had a negative impact on the adolescent problem (Kelly et al., 2011; Finkel et al., 2003). According to Norlila (2011), 80% of the commuters in Malaysia claimed that their children had been experiencing discipline problems in school since their commuter lifestyle started. Therefore, further investigation is warranted to ensure that the growing number of commuter families would not affect the development of adolescents and their school performance. In respect to the level of parental readiness to commute, our findings showed that the majority of the respondents (62.6%) were in the stage of preparation to change. Although they were prepared and willing to make changes for a better life, practical actions had yet to be taken; this is the stage defined as 'thinking but action not started' (Prochaska & DiClement, 1984). However, one should remember that family readiness to commute is important, especially parental readiness, for the management, development and well-being of the family (Palmer, 2008). Hofmeisfer (2006) emphasised that individuals, especially parents, have to adapt to changes in the lifestyle of the commuter family for success, not only in their career but also to improve the quality of family life.

Second, to examine the relation between parental readiness, adolescent problem and adolescent school performance, support was found for the notion that there were significant relations between parental readiness, adolescent externalising problem and adolescent school performance. However, the findings revealed that the symptoms of internalising problem and other problems were not significantly related to parental readiness and adolescent school performance. This is in line with previous studies that indicated that maternal separation was significantly correlated with the child's externalising problem but not with the child's internalising problem (Hewage, 2011). In addition, the Social Learning Theory (Bandura, 1976) states that people learn by observing others. The modelling processes introduced by Bandura (1984) described modelling as a general term that refers to behavioural, cognitive and attitude changes derived from observing one or more models. Children are responsive to parental psychosocial outlook and may easily mirror how parents respond (Fletcher, 1996; Pfefferbaum, 1997). Parental readiness is believed to be an important factor in adolescent academic performance. Palmer (2008) indicated that parents with low readiness would always express negative psychosocial behaviour, such as stress, aggression and depression, and that the psychosocial problem negatively affects the child's development and academic performance (Martin, 1999). Good adjustment and preparation to change among parental beliefs indirectly increases parental involvement and supervision of children's daily activities (Hardaway, 2004; Webb, 2004). A substantial body of research has documented the importance of parental practice in respect of a child's behaviour

and academic performance (Keith, 1994; Rodriquez, 2002; Ishak, 2004; Gershoff et al., 2007; Han et al., 2012).

Third, we explored a model to examine the contributions of parental readiness and the adolescent externalising problem towards adolescent school performance. The model suggested that parental readiness contributed more to the adolescent externalising problem compared with adolescent school performance. The overall model contributed 21% to adolescent school performance among commuter families in Malaysia. This finding supports the earlier studies that indicated that although parental role was important in adolescent development, adolescent academic performance required the cooperation of both the school management and parental practice (Epstein & Sander, 2002; Hill & Taylor, 2004). The relationship between school and parents' involvement positively affects a child's psychosocial development and academic achievement (Yonezawa, 2000). Our findings were consistent with previous research showing that a higher level of parental readiness was related to a lower level of the adolescent externalising problem (Qi & Kaiser, 2003; Barry et al., 2005) and a lower level of the externalising problem was related to a higher level of adolescent school performance (Windle & Wiesner, 2004; Bradshaw et al., 2010). According to the study conducted by Norlila (2011), in Malaysia, commuters with less preparation and a negative perception of commuting may experience psychosocial problems, such as stress, anxiety, emotional

behaviour and aggression. Parents showing negative psychosocial behaviour have less communication and involvement with their children; this is significantly correlated with a child's academic achievement. The results are in line with our findings showing that parental readiness may have a negative impact on adolescent school performance (Malecki & Elliott, 2002; Ronald, 2003).

Fourth, this study also contributes to the literature in its proposal of a simple mediation model to explore mediation effect on adolescent academic performance. The model suggested that the relation between parental readiness and adolescent school performance in this study was partially mediated by the adolescent externalising problem. Surprisingly, this finding indicated that the total effect of the mediation model was equivalent to the total effect of the direct model. This is inconsistent with the previous studies that indicated that the degree of preparation to move partly accounted for the family and child outcome (Martin, 1999; Palmer, 2008). One possible explanation is that the above research was carried out among commuter families from military parents. Although military families are also categorised as commuter families, the 'military family syndrome' (LaGrone, 1978; Jensen, Martin, & Watanabe, 1991) should be considered. The risk and resilience factors i.e. relocation, pre-deployment and deployment every two to three years may affect the development of military families and their child's outcome (Palmer, 2008). Our finding in the mediation model strongly suggested that parental readiness was an

important component in the adolescents' development. Finally, the moderation test carried out summarised that gender moderates the causal effect of parental readiness and the adolescent externalising problem on adolescent school performance. This result was in line with previous research, which reported that boys scored significantly higher than girls in the externalising problem (Rescorla et al., 2007), and that academic achievement among girls was higher in non-delinquent groups (Malinauskiene, Vosylis, & Zukauskiene, 2011). Most studies have shown that girls performed better in school than boys, and that girls graduated from high school with a higher grade than their male peers (Perkin et al., 2004). Gender as a predictor of academic achievement has been a controversial topic in the literature.

CONCLUSION

Generally, our study supported the mediation model proposed by this study. For the results of moderation, we would say that gender moderates the causal effect of parental readiness and the adolescent externalising problem on school performance. However, the importance of parental readiness should be highlighted in the children's outcome among commuter families, especially families with youth. The literature shows that the majority of previous studies were carried out in either Western countries or focused on military parents, but none of the reports according to the cultural and socioeconomic status (SES) were among commuter families in Asian countries, especially Malaysia. Therefore, the research is important for contributing new knowledge for future research in social sciences to ensure that the growth of commuter families in Malaysia is in line with positive family development and children's outcome.

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The Influence of Demographic Profile on Work Life Balance of Women Employees in Tannery Industry – An Empirical Study

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ABSTRACT

In the current scenario, the common news in newspapers is that many highly educated and dual income couples prefer to opt for divorce, separation or the partner may get killed by the spouse. The reason for this may be due to the immense stress they face at work and also due to the family environment. Their work-life balance is very poor, suffer high ego, unable to spend time with family members and are pampered children of their parents. If the person is highly educated, has high income, and also receives support from family members, he / she can face failure easily which is caused by family life; for others, they may end up making harsh decisions like committing suicide, lodging a report against their spouse, starting unhealthy habits which affect his / her health or harass their life partner. This motivated the researchers to carry out the study of less educated, lower income female employees who are working in the tannery industry. The researchers found that current experiences and dual earners are the most important independent variables in predicting stress, such as hypertension, obesity and gynecological problems. The researchers also found respondents with certain demographic profiles to work more productively than others. This study also reveals the most and least preferred attributes of work life balance.

Keywords: Stress, failure, productivity, attributes, family and work life balance

INTRODUCTION

Work life balance (WLB) of women workers has become a vital and often discussed matter, as women are also earning and equally sharing the responsibility for the betterment of their family. Work life balance means the individual's capacity to schedule the hours of personal and

professional responsibilities to lead a healthy and peaceful life. A woman when attains a successful WLB, she becomes highly committed, productive, satisfied with the job and succeeds in her career. Some women fail to achieve their work life balance due to incapability to set priorities (Santhana & Gopinath, 2013). A working woman enjoys her personal life and succeeds in her professional life which leads to positive work life balance. Work life balance of women employees differs from one another; the priorities differ based on their age, marital status, number of children, age of children, experience and emotional intelligence. In today's competitive scenario, the ability to work with emotion plays a key role in faculty members' performance. From many studies, it has been evident that faculty members who have higher emotional intelligence can perform better in both the working environment and family life, which leads to personal satisfaction. WLB is the assurance of emotional intelligence among faculty members (Sagaya, 2015).

Crompton (1999) described that in the beginning of the twenty-first century, work-life balance did not receive much attention and seemed to be less challenging due to two reasons. First, employment was limited only to a male full-time worker and they were considered as the bread-winner. Second, it was a traditional trend that women involved themselves in more unpaid work such as nurturing, caring and domestic work. The notion of work-life balance underwent a drastic change and gave rise

to work life balance issues, when increased number of women workers and dual-earner couples entered into workforce in various employment sectors (Burke & Greenglass, 1987; Lambert, 1990).

In the early centuries only few women had the access to higher education and many were forced to rely on their father's or husband's attitudes on the way to women employment. The fast growing knowledge economy has enlightened many women by higher education and has given them the opportunity for robust careers (Delina & Prabhakara, 2013). Women are now visible in those domains which were traditionally dominated by men. This has given a tough task for women to balance additional responsibilities related to work and family. Many mothers struggle to balance both the roles in a better way; especially for working mothers with young children it becomes a great challenge to fulfill the responsibilities. It acts as a boon for them to balance career and life (Sahana & Bagali). According to Greenhaus, Collins and Shaw (2003) WLB is defined as the extent to which an individual is similarly engaged and equally satisfied with his or her work and family role. Purohit (2013) refers to WLB as a situation where people have control over their work when, where, what and how they perform. Although women struggle to balance family and work roles, their participation in the workforce has led to many benefits like economic benefits to the organisations, involvement in decision making whether it is related to family or

work, increase in standards of living, social interaction, and increased competence (Cleveland, Stockdale, & Murphy, 2000).

In this rapidly growing competitive world, opportunity for job is increasing day by day, and organisations are required to create a congenial atmosphere where employees especially women and working mothers can balance their professional and family life. A successful work-life balance leads to achievement of personal and professional career goals (Matheswaran & Hemalatha, 2015). Bharat (2003) pointed out that demographic changes in women are seen to be increasing at the workplace and dual earner families have generated an increasingly diverse workforce and a greater prerequisite of employees to balance their work and non-work lives. Increasing work life balance issues of employees, increasing attrition rates, and absenteeism have forced organisations to revise and initiate practices such as flexible working hours, different work arrangements, supportive family-friendly policies like family care responsibilities, child care facilities, compensation packages, and employees' assistance programmes (Andukuri, Sagar & Deepa, 2013).

Rahul and Parvesh (2015) described WLB to mainly emphasise on two main features called achievement and satisfaction. This implies that a working woman should be able to have job satisfaction (enjoyment), and at the same time, be able to rise in her career (achievement). Balancing a successful career with family life can be challenging and has an impact on a person's satisfaction in their work and family role. A better work life balance will help to achieve professional satisfaction and personal freedom for employees (Sayers, 2007).

Research Objectives

The researchers have framed the following research objectives to find the work life balance of women employees in the tannery industry:

- To identify the most important independent variable in predicting the occurrence of stress when compared to other independent variables.

- To find out the association of demographic profile of the respondents and WLB determinants.

- To find the most preferred and least preferred attribute of WLB.

REVIEW OF LITERATURE

In recent years, WLB has drawn much attention in the modern management literature. Pandu, Balu and Poorani (2013) state that work life balance is all about framing a productive culture where the ability of the individual is maximised and the tension between work and other activities of people's survival is minimised. Participating in multiple roles can subsidise to good mental and physical health of an individual so long the degree of "fit" between work and family is acceptable (Bamett, Garies, & Brennan, 1999; Marks & MacDennid, 1996). The current knowledge economy has given adequate access to women who are combined with factors

like changes in marital arrangements and smaller families. This has led to an increase in the volume of working women especially working mothers.

Demographic Variables and Work life Balance

In the past decades, global demographic and personality fluctuations occurred, such as maximum participation of women in workforce, dual earning families, single parent earning families, child care, and elderly care resulted in greater tasks for women workers, who try to balance the needs of both work and family life (Tennant & Sperry, 2003). Researchers pointed out these kind of greater tasks and higher demands from work and family led to negative effects on the well-being of workers and causing family-work conflicts (Aryee, Srinivas, & Tan, 2005).

Age. Leger (2004) reported that most working women who belonged to the age group of 35 to 55 years were experiencing depression and generalised anxiety disorder; such symptoms emerged to be a hurdle in their success at the workplace and household lives. Dubey, Saxena and Bajpai (2010) found women belonging to the age group of above 40 years to maintain better work life balance by having control on their work-life responsibilities, when compared to their younger colleagues. Many researches have reported that working women of 25 to 50 years face the problem of work life balance (Desai, 2015).

Women's Marital Status. Balancing work and life has become difficult for a married working woman. Due to the transactional shift in the trend of society, families have started to move from joint to nuclear family, causing imbalance in work and family (Desai, 2015). Sahana and Bagali (2014) described that marital relationship, co-operation of husband and family members, and their attitudes are factors that impact WLB of women. Martins, Eddleston and Veiga (2002) pointed out that married women always give more importance and priority to their family than work. Barette (2009) also postulated that balancing work life is difficult for a single parent.

Educational Background and Income of Women. Chong and Ma (2010) found that higher education and more work experience boost the confidence level of an individual and increases self-efficacy. Ross and Huber (1985) predicted that education has a largest effect on reducing stress; it has a positive impact on WLB. Tausig and Fenwick (2001) described that work life balance is less among employees with undergraduate degree or with an advanced university degree and high among school leavers or below. Researchers argue that work place flexibility is limited to high income and position of women. It was also pointed out that women with high income were able to make some arrangements for domestic work (Kalpana & Kiran, 2014).

Personality. Researchers have identified five core personality traits : (1) Extraversion

(active, assertive, positive emotions,excited); (2) Agreeableness (kind, forgiving, straight forward, trusting, pro-social behaviour); (3) Conscientiousness (Competent, well organised, self-disciplined, achievement oriented, deliberated); (4) Neuroticism (self-conscious, impulsive, anxious, angry, tense, depressed); and (5) Openness (curios, imaginative, creative, aesthetic, inventive) (Judge & Higgins, 1999; McCrae & John, 1992). Responding emotionally to a role by a person influences their interpersonal availability and psychological presence in a different role (Rothbard, 2001). Crooker et al., (2002) found that individuals with conscientiousness (commitment, control and challenge) and kindness are most likely to achieve a better WLB. Kaur (2013) found that there is positive correlation between WLB, satisfaction with life and friendliness dimension of personality. Intrinsic work values make a person express openness for change - interest, growth, pursuit of autonomy and creativity in work. An employee with extrinsic work value orientation may be associated with lower job vitality, job commitment, job satisfaction and higher exhaustion (Van den Broeck, Vansteenkiste, & Has De Witte, 2010).

Caregiver and Work Life Balance. Giddens (l997) described that an increasing number of working women choose to put a hold on their career, when they become mothers. Another reason for women not to be in full time employment is because of their husbands who may be neglecting to take care of the children. Campbell et al.

(1994) studied women's job performance and work attitudes which were affected by family life. The results witnessed that women with children had less occupational commitment compared to women without children. Also, women who have younger children were better at balancing work and family life than colleagues with older children. Pew Research Center survey (2013) predicted that most working mothers with children under the age of 18 agreed that being a working parent made it harder for them to advance in their career, about 42% of working mothers reduced their working hours at some point of their working life in order to take care of the child or other family members. Working mothers who have children with some chronic illness or disability face more problems in balancing work and family, sometimes this leads to work life conflict (Emslie, Hunt, & Macintyre, 2004). Along with child care, working women also have the responsibility to take care of their ageing parents (elderly care). Elderly care differs from child care; the demands associated with elderly care increase over time and caring for them spans many years which is unpredictable and varies widely (Pavalko & Gong, 2005).

Household Responsibilities and Work Life Balance. Treiman and Hartman (1981) pointed out that married women, irrespective of their paid or unpaid employment, do double the amount of housework than their husbands. A married woman who is unemployed works 70 hours per week in carrying out domestic chores and taking care

of the children. In contrast to this married men only spend about 11 hours per week for doing house work and taking care of children. Hochschild and Machung (1990) illustrated that married women having families and careers dedicated an additional month to domestic chores. Nicolson (1997) described that working mothers often face health problems due to their family and work responsibilities. Makoswska (1995) studied the psychosocial factors of stress and well-being of employed women. The results revealed that the relationship between family functioning, well-being and stress was significant. However, work-related stressors were greater than family-related stressors.

Work Characteristic and Work Life Balance

Haworth and Lewis (2005) pointed out that many organisations are introducing new technologies, working practices and are also demanding greater flexibility due to their pressure of competition in the workforce. Geurts, Kompier, Roxburgh and Houtman (2003) put forward that higher workloads lead to negative spillover affecting both work and home. Butler, Grzywacz, Bass,and Linney (2005) found existence of positive relationship between job demands and work-family conflicts. Work demands and additional work hours minimise the time for home (White, Hill, McGovern, Mills, & Smeaton, 2003). McDonald, Brown and Bradley (2005) put forward five dimensions that affect organisational work-life culture: lack of managerial support, expectation of

organisation time, perception of negative career consequences, gendered nature of policy utilization, and perception of unfairness by employees with limited non work responsibilities. Employees with lower levels of observed control over their work are more probable to experience high role overload and high intervention between work and family roles (Baral & Bhargava, 2010). Improvements and introduction to new technologies have helped employers to progress in business more effectively, more accessible to clients as well as often reachable with employees. Technology has made working hours of an employee into 24/7 (Maxwell & McDougall, 2004).

Consequences of Work Life Imbalance

Low level of work life balance can lead to employees having less morale and more absenteeism (Brought, O'Driscoll, & Kalliath, 2005). Gambles (2006) discusses that work life imbalance of an individual is related to demanding and increased work practices followed at the workplace, work increasingly interfering with personal life, workplace being more efficient with labour regulations and constant changes. Stress stemming from higher demands from work or family has effects in family-work conflicts and work-family conflicts (Aryee, Srinivas, & Tan, 2005). Kofodimos, (1993) suggested that imbalance in particular causes great levels of stress, minimises the quality of life finally reducing individuals' performance and efficiency at work. Aziz and Cunningham (2008) narrated that work stress and work life imbalances are

correlated with workaholic behaviour. Malik, McKie, Beattie and Hogg (2010) found that imbalance in work-family life was caused by increased work needs and led to higher levels of stress. Long working hours force employees to flee many of their family responsibilities that create an imbalance in their work and family lives. Greenhaus et al. (2003) indicated that an imbalanced fulfillment between dual roles, work and family creates maximum stress as the disparity appears to be a perpetual reminder about one not meeting his or her desires or values in one role as the other.

Well-being

Well-being of an individual can be categorised into (a) subjective well-being that focuses on positive effects and the absence of adverse effects, and (b) psychological well-being, which focuses on achieving an individuals' full capacity. Subjective wellbeing is also known as emotional well-being (Ryan & Deci, 2001). According to Lazarus and Folkman (1984), stress is a relationship between a person and their circumstances which is evaluated as taxing and endangers his or her well-being. Well-being of a person can also be determined by their subjective judgment towards satisfaction with life, psychological health (Grzywacz, Almeida, & McDonald, 2002), and also by their objective evaluation of physical health (for example, blood pressure) (Broadwell & Light, 1999). For an individual, high stress may cause ill-being especially when a person lacks coping strategies or applies ineffective strategies

to cope with stress (Hardie, Kashima, & Pridmore, 2005; Lazarus & Folkman, 1984). Diener (1984) argued that positive effect, negative effect and satisfaction with life are important factors indicating well-being. Erlandson (2006) described that women with low complex pattern of occupations in a paid workforce have better health and well-being than women having medium and high complex pattern of occupation. For an individual, both family and work are vital elements in life (Clark, 2000).

Work and Family Support

Various studies suggest that there is a correlation between forms of social support which includes support from spouse, family members, superior, co-workers or colleagues and work/family conflict (Byron, 2005; Cinamon & Rich, 2005). Many studies discriminate the domain of work-based social support from individual social support, such that existence of correlations in one domain can attenuate adverse consequences or accentuate positive consequences from other sectors (Carlson & Perrewe, 1999; Greenhaus & Parasuraman, 1994). Allen (2001) found from the survey that types of occupations who alleged their organisations as minimally friendly and where their presence is required for family care, experienced more work-family conflict, which caused them to be less satisfied with their job, less committed to the organisation and showed greater intentions to turnover than those who alleged their organisation as more family supportive. Various forms of research has also suggested

that a friendly organisational environment and supportive relationships (the manager, supervisor, colleagues and co-workers) at work might have a significant association with the employee's work outcomes. The social support of peers actually facilitates job satisfaction of all workers (Ducharme & Martin, 2000). Social support outside the workplace or at home may come from women's spouse, parents, siblings, children, relatives and friends. Working women believe that support from spouse in various areas, which includes earnings, personal financial management (Kate, 1998), home and family responsibilities (Baron, 1987), career management and support (Gordon & Whelan-Berry, 2004; Hertz, 1999) and interpersonal support (Becker & Moen, 1999) helps them in balancing work and life. Greenhaus and Parasuraman (1994) found that the family relationships enhance support which minimises work-family conflicts by reducing their time demands and stress. Vasumathi, Sagayamary and Subashini (2015) found that majority of the faculty members' performance is affected by conflict / misunderstanding with the managers, while only very few have more conflicts / misunderstanding with the family members.

Work and Family Satisfaction

Various research projects have configured that work / family conflict is the reason for minimised satisfaction, including personal satisfaction, marital satisfaction and work satisfaction. Work family conflict and family work conflict are due to the strain framed by incompatible roles. Occurrence of work family conflict has shown to be relatively negative to family satisfaction and family work conflict due to lower job dissatisfaction (Netemeyer, Boles, & McMurrian, 1996). Various researches witnessed that job satisfaction produces many favorable organisational outcomes, like lower absenteeism, lower turnover rate, increased job performance, organisational commitment, customer satisfaction and organisational citizenship behavior (Kinicki, McKee-Ryan, Schriesheim, & Carson, 2002). Researchers and scholars have also reported that work-family conflict and family-work conflict are adversely associated with work satisfaction (Beutell, 2010; Netemeyer et al., 1996), family satisfaction and well-being (Beutell, 2010; Lu et al., 2010). Grandey, Cordeiro and Crouter (2005) pointed out that job and family roles are the key roles for many individuals. Literature suggests that an individual who considers work to be the source of interference may develop a negative attitude towards the job, resulting in lower job satisfaction. On the other hand, if an individual considers family as the source of interference and high value work role, it may result in family conflicts and lower family satisfaction (Beutell, 2010; Grandey et al., 2005).

RESEARCH METHODOLOGY

Type of Research

Descriptive research is followed in this study. Women workers working with the tannery industry in Tamil Nadu were considered as target respondents for this study.

Sample Size

The formula for deriving the sample size is as follows:

$n = (z\sigma / d)^2$

n = Sample size of the population

z = Value at a complete level of confidence

σ = Standard deviation of the population

d = Difference between the population mean and sample mean

The researchers approached the target respondents who were working in the tannery at locations such as Ambur, Vaniyambadi, Gudiyatham and Ranipettai. As per CLRI 2013 report, there are 42,000 tannery units in India. Out of that number, 1924 tannery units are located in Tamil Nadu. There are 314 units located in Vellore and Tirupattur districts. There are 63 units in Ranipet, 96 units in Ambur, 130 units in Vaniyambadi and 25 units in Melvisharam. It was a difficult task to identify the population mean and standard deviation, hence the researchers used convenience sampling method and the survey was conducted with women labourers working in the tannery industry. Hence, the researchers approached 500 respondents (250 from each district). In Vellore district, the researchers collected 250 questionnaires from women labourers who were working in Gudiyattam (125 questionnaires) and Ranipet (125 questionnaires). Similarly, the researchers collected questionnaires from 250 women labourers working at Ambur (125 questionnaires) and Vaniyambadi (125 questionnaires). The target respondents were selected based upon their interest and willingness to respond to the questionnaire and they were thus, considered as sample size for this study.

Research Instruments

This research is an empirical study; hence, questionnaire was used as the sole instrument for primary data collection for this research. The researchers drafted a structured questionnaire which consisted of second parts. The first part of the questionnaire consisted of demographic profile of the women labourers, in the second part, the questions were related to the WLB, occurrence of stress related disease, and other important attributes required for WLB. The researchers conducted a validity test for the variables in the questionnaire in order to measure the WLB practices, working hours related issues and important attributes of work life balance.

Sources of Data

The primary source of data was collected by distributing a well-structured questionnaire, while the secondary source of data were

Data Analysis Procedures

The primary data was collected by distributing questionnaires to the target respondents and their responses were keyed-in and analysed using SPSS (Statistical Package for Social Sciences). Multiple regression analysis is useful to identify the important independent variables among all other independent variables that predict the dependent variable. Therefore, multiple regression analysis was carried out to identify the occurrence of stress-related disease on independent variables such as age, marital status, educational qualification, current experience, current annual income, number of children, number of dependents excluding children, dual earning couple and time to reach the workplace from home. The authors found that current experience and dual earner couples are the most important independent variables in predicting the occurrence of stress when compared to other independent variables such as age, marital status, educational qualification, current annual income, number of children, number of dependents excluding children and time to reach the workplace from home. Discriminant analysis identifies the association between one dependent variable (dichotomous questionnaire) and many independent variables. Hence, the researchers used discriminant analysis which revealed a significant association between working hours and the demographic profile of respondents (age, marital status, educational qualification, current experience, current annual income and number of children). Weighted average method was adopted to find out the preferred work life balance attributes of women labourers.

DATA ANALYSIS AND FINDINGS

Regression Analysis

Regression analysis was carried out to predict the occurrence of stress related disease with the demographic profile of the respondents such as age, marital status, educational qualification, current experience, current annual income, number of children, number of dependents excluding children, dual earning couple and time to reach the workplace from home.

Table 1
Predicting the occurrence of stress related sisease with Demographic Profile Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.267	.071	.054	1.465

Table 2
ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	80.553	9	8.950	4.167	.000
	Residual	1052.349	490	2.148		
	Total	1132.902	499			

Table 3
Coefficients

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.171	.377		8.421	.000
Age	-.061	.081	-.043	-.750	.453
Marital status	-.159	.083	-.116	-1.928	.054
Educational qualification	-.121	.073	-.077	-1.653	.099
Current experience	.240	.090	.139	2.667	.008
Current annual income	-.038	.119	-.015	-.319	.750
Number of children	.156	.082	.124	1.897	.058
Number of dependents excluding children	.088	.055	.077	1.618	.106
Dual earner couple	.411	.139	.137	2.969	.003
Time taken to reach the workplace from home	.196	.089	.106	2.205	.028

Dependent variable: Stress related disease

From Table 1, we can see the R^2 value, 0.71, which shows that 7.1% of the variation in predicting the occurrence of stress can be explained by 10 independent variables such as age, marital status, educational qualification, current experience, current annual income, number of children, number of dependents excluding children, dual earner couple and time taken to reach the workplace from home.

From Table 2, the analysis of variance table shows that the significance of F is 0, which indicates that the model is statistically significant at a confidence level of 0%.

From Table 3, the equation can be written is as follows:

Y= 3.171- 0.061 (Age) – 0.159 (marital status) – 0.121(educational qualification) + 0.240 (current experience) – 0.038 (current annual income) + 0.156 (number of children) + 0.088 (number of dependents excluding children) + 0.411 (dual earner couple) + 0.196 (time taken to reach the workplace from home.

It is also clearly depicted from Table 3 that independent variables, namely age, current annual income and number of dependents excluding children are statistically significant since their p value is greater than 0.1.

Forward Regression Analysis

Table 4
Descriptive statistics

Particulars	Mean	Std. Deviation	N
Stress related disease	4.51	1.507	500
Age	2.31	1.073	500
Marital status	2.11	1.096	500
Educational qualification	2.04	.965	500
Current experience	1.94	.872	500
Current annual income	1.40	.611	500
Number of children	2.50	1.197	500
Number of dependents excluding children	2.88	1.322	500
Dual earner couple	1.56	.500	500
Time taking to reach company from home	1.87	.816	500

Table 5
Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.168	.028	.026	1.487
2	.208	.043	.040	1.477

Table 6
ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	31.845	1	31.845	14.403	.000
	Residual	1101.057	498	2.211		
	Total	1132.902	499			
2	Regression	49.144	2	24.572	11.268	.000
	Residual	1083.758	497	2.181		
	Total	1132.902	499			

Table 7
Coefficients

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.951	.162		24.317	.000
	Current experience	.290	.076	.168	3.795	.000
2	(Constant)	3.346	.269		12.456	.000
	Current experience	.301	.076	.174	3.967	.000
	Dual earner couple	.373	.132	.124	2.817	.005

a. Dependent Variable: Stress related disease

Table 5 shows the R^2 value as 0.028, which means that 2.8% of the variation in predicting the occurrence of stress can be explained by two independent variables such as current experience and dual earner couple.

From Table 6, the analysis of variance shows that the significance of F is 0, which indicates that the model is statistically significant at a confidence level of 0%.

From Table 7, using forward regression analysis, the regression equation of the occurrence of stress can be predicted by demographic variables such as:

Y= 3.346+ 0.301(Current experience) + 0.373 (Dual earner couple)

Backward Regression Analysis

Table 8
Descriptive statistics

Particulars	Mean	Std. Deviation	N
Stress related disease	4.51	1.507	500
Age	2.31	1.073	500
Marital status	2.11	1.096	500
Educational qualification	2.04	.965	500
Current experience	1.94	.872	500
Current annual income	1.40	.611	500
Number of children	2.50	1.197	500
Number of dependents excluding children	2.88	1.322	500
Dual earner couple	1.56	.500	500
Time taking to reach company from home	1.87	.816	500

Table 9
Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.267a	.071	.054	1.465
2	.266b	.071	.056	1.464
3	.264c	.070	.057	1.463

Table 10
ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	80.553	9	8.950	4.167	.000b
	Residual	1052.349	490	2.148		
	Total	1132.902	499			
2	Regression	80.334	8	10.042	4.684	.000c
	Residual	1052.568	491	2.144		
	Total	1132.902	499			
	Regression	79.124	7	11.303	5.277	.000d
	Residual	1053.778	492	2.142		
	Total	1132.902	499			

a. Dependent Variable: Stress related disease

Table 11
Coefficients

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.171	.377		8.421	.000
	Age	-.061	.081	-.043	-.750	.453
	Marital status	-.159	.083	-.116	-1.928	.054
	Educational qualification	-.121	.073	-.077	-1.653	.099
	Current experience	.240	.090	.139	2.667	.008
	Current annual income	-.038	.119	-.015	-.319	.750
	Number of children	.156	.082	.124	1.897	.058
	Number of dependents excluding children	.088	.055	.077	1.618	.106
	Dual earner couple	.411	.139	.137	2.969	.003
	Time taking to reach company from home	.196	.089	.106	2.205	.028

Table 11 *(continue)*

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	3.157	.374		8.448	.000
	Age	-.061	.081	-.043	-.751	.453
	Marital status	-.163	.082	-.118	-1.989	.047
	Educational qualification	-.124	.072	-.080	-1.717	.087
	Current experience	.235	.089	.136	2.652	.008
	Number of children	.156	.082	.124	1.907	.057
	Number of dependents excluding children	.090	.054	.079	1.658	.098
	Dual earner couple	.405	.137	.134	2.956	.003
	Time taking to reach company from home	.189	.086	.102	2.199	.028
3	(Constant)	3.096	.365		8.493	.000
	Marital status	-.173	.081	-.126	-2.150	.032
	Educational qualification	-.121	.072	-.077	-1.673	.095
	Current experience	.222	.087	.128	2.554	.011
	Number of children	.135	.077	.107	1.757	.080
	Number of dependents excluding children	.092	.054	.081	1.702	.089
	Dual earner couple	.419	.136	.139	3.086	.002
	Time taking to reach company from home	.182	.085	.098	2.131	.034

a. Dependent Variable: Stress related disease

Using backward and forward analysis, the researchers found that current experience and dual earner couples are the most important independent variables in predicting the occurrence of stress when compared to other independent variables such as age, marital status, educational qualification, current annual income, number of children, number of dependents excluding children and time to reach the workplace from home. It is also significant that the coefficient of current experience and dual earner couple are 0.222 and 0.419 respectively, which is higher than the coefficients of other independent variables.

Discriminant Analysis

H1: There is a significant association between working hours and demographic profile of the respondents (age, marital status, education qualification, current experience, current annual income and number of children).

Table 12
Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 2	.928	36.699	12	.000
2	.997	1.672	5	.892

Table 13
Standardised canonical discriminant function coefficients

Particulars	Function	
	1	2
Age	-.232	-.026
Marital status	.462	-.438
Educational qualification	-.058	.684
Current experience	-.755	.266
Current annual income	.730	.322
Number of children	.311	.769

Table 14
Classification Groups

Number of hours normally work in a day			Predicted Group Membership			Total
			5-8 hrs	8-9 hrs	above 9 hrs	
Original	Count	5-8 hrs	75	56	48	179
		8-9 hrs	77	172	48	297
		above 9 hrs	8	7	9	24
	%	5-8 hrs	41.9	31.3	26.8	100
		8-9 hrs	25.9	57.9	16.2	100
		above 9 hrs	33.3	29.2	37.5	100

51.2% of original grouped cases correctly classified

The classification matrix in Table 14 shows that the discriminant function obtained is able to classify 51.2% of the 500 objects correctly. The Wilk's Lambda value in Table 12 is 0.928, which is closer to 1. Hence it shows low discriminating power of the selected variables. The probability value of the F test indicates that the discrimination between working hours is highly significant. This is because P<0, which indicates that the F test would be significant at a confidence level up to (1-0) x 100 or 100%. Therefore, H1 is accepted. There is a significant association between the working hours

of the respondents and their demographic profile of the respondents (age, marital status, education qualification, current experience, current annual income and number of children).

Table 15
Functions at group centroids

Number of hours normally worked in a day	Function	
	1	2
5-8 hrs	-.337	-.028
8-9 hrs	.223	-.003
above 9 hrs	-.244	.253
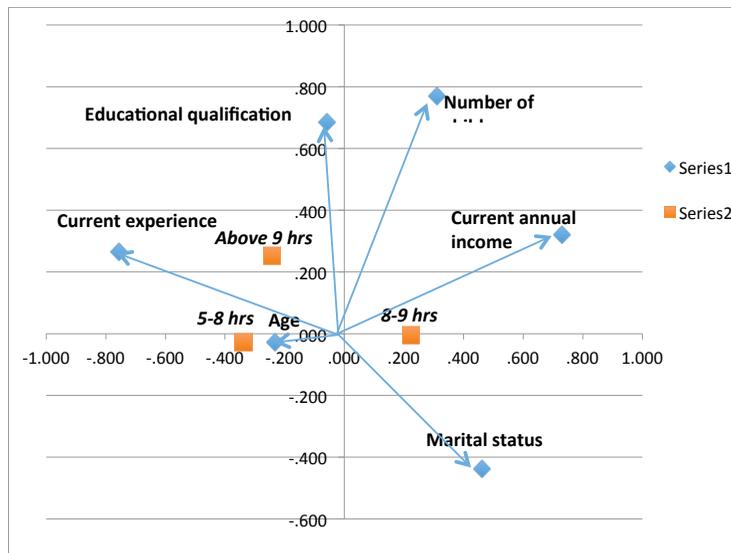
Figure 1. Attribute Based Perceptual Mapping

Figure 1 on Attribute Based Perceptual Mapping shows that all the three different working hours (5-8 hours, 8-9 hours and above 9 hours) have their individual positions. The same map also represents the plotted value of the attributes as well as two types of dimensions (each discriminant function is represented by a dimension). The map also indicates that dimension 1 comprises marital status and current annual income. Table 13 on standardized discriminant function coefficient appears to be significant for marital status (0.462) and

current annual income (0.730). Similarly, dimension 2 comprises educational qualification, number of children (0.311) and current experience (0.266). Respondents' age has no impact in defining any of the dimensions as its coefficient value from Table 5 is -0.232, -0.026 and its arrow is not close to either of the two different dimensions. Respondents who work for 8-9 hours are stronger on dimension 1 (marital status and current annual income). This analysis reveals that the respondents who are married and satisfied with their current

annual income are working 8-9 hours compared to other respondents. Respondents who have good educational background and excellent experience work beyond 9 hours. Respondents who work for 5-8 hours are low on both the dimensions compared to other respondents. It also proves that unmarried respondents, those who are unhappy with current annual income, the less qualified and less experienced ones who work for only 5-8 hours do not prefer to work more than 8 hours. Hence, their work life balance would is better than other respondents who work more than 8 hours in office.

Weighted Average Method

Table 16
Attributes of WLB

		More flexible hours	Time off during school holidays	Time off during sickness	Support from family members	Support from supervisors	Health care benefits	Social services	Job Sharing	Counseling service	Rest room	Picnic/ excursion	Medical claim for dependents	Education allowance for kids
N	Valid	500	500	500	500	500	500	500	500	500	500	500	500	500
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		5.38	5.38	5.20	6.53	5.67	5.09	6.38	9.24	8.42	8.60	8.82	8.95	6.49	5.33
Std. Deviation		3.338	3.338	3.739	3.429	3.582	3.125	3.169	2.890	3.144	2.896	2.995	4.098	3.737	3.697
Coefficient of Variation (%)		62.04	62.04	71.9	52.5	63.2	61.4	49.7	31.2	37.3	33.7	33.9	45.7	57.5	69.36

Table 17
Ranking of WLB attributes

Factors	Frequency Table															
	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Rank 7	Rank 8	Rank 9	Rank 10	Rank 11	Rank 12	Rank 13	Total	Weighted average	Rank
More flexible hours	15	112	80	54	25	48	31	24	44	4	22	40	1	4403	48.38	2
Time off during school holidays	46	91	100	71	26	2	32	26	1	46	4	15	40	4401	48.36	3
Time off during sickness	27	55	56	23	39	50	35	59	33	41	54	10	18	3736	41.05	8
Support from family members	63	39	74	70	39	33	22	16	37	44	25	26	12	4166	45.78	5
Support from supervisors/colleagues	78	43	14	113	50	86	32	4	13	18	25	18	6	4454	48.94	1
Health care benefits	64	16	23	20	63	52	83	34	56	51	18	7	13	3810	41.86	6
Social services	15	6	3	2	2	60	34	90	50	12	89	82	55	2380	26.15	13
Job sharing	17	20	7	29	20	36	34	50	60	67	89	48	23	2788	30.63	9

Table 17 *(continue)*

Factors	Frequency Table															
	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Rank 7	Rank 8	Rank 9	Rank 10	Rank 11	Rank 12	Rank 13	Total	Weighted average	Rank
Counseling service	2	8	2	40	37	11	86	63	54	59	38	34	66	2699	29.65	10
Rest room	6	1	26	12	47	5	71	62	43	24	72	104	27	2590	28.46	11
Picnic/excursion	20	35	35	10	15	33	25	35	5	72	22	6	187	2527	27.76	12
Medical claim for dependents	75	33	30	22	39	65	20	22	82	9	42	57	4	3754	41.25	7
Education allowance for kids	83	58	49	32	114	20	2	32	15	31	15	14	35	4333	47.61	4

From Table 17, it can be seen that the majority of respondents say support from supervisor / colleagues is the most important attribute for WLB. The next important attribute is more flexible hours, followed by time off during school holidays. The respondents ranked the least important attribute to be social service. This reveals that if respondents spend time on social service, they are unable to balance work and family environment. The respondents feel that going to picnic / excursion plays an adverse effect on WLB, since the respondents with lesser annual income would not prefer to go for a picnic or excursion arranged by the company, which would make them unable to spend time with family members, have financial problems and health issues. The respondents feel that they don't require restroom facility offered by the company which leads to an increase in non-productive hours at the work place. This would be accumulated for the next day and it ultimately results in poor WLB.

Table 16 shows the coefficient of variation for social service (31.2%), counseling service (33.7%) and rest room (33.9%) are lower than other determinants of WLB. There is more consistency among respondents towards the response of social service, counseling service and rest room facility. Their mean rank is higher than other attributes of WLB. Social service, counseling service and rest room facility would not help them for WLB, compared to other attributes.

CONCLUSION

The study has revealed that current experience and dual earner couple are the most important independent variables in predicting the occurrence of stress related diseases in comparison to other independent variables such as age, marital status, educational qualification, current annual income, number of children, number of dependents excluding children and time to reach company from home. Using discriminant analysis, the researchers found that the respondents' who are married and satisfied with current annual income work 8-9 hours compared to other respondents. This result is aligned with Barette (2009), and Kalpana and Kiran (2014). Respondents

who have good educational background and excellent experience work above 9 hours. Hence, the organisation should select female workers with good quality of education and experience, as they contribute more to the organisation. Also, the organisation should pay adequate salary to female labourers in an effort to increase productivity. This result is similar to the finding of Chong and Ma (2010), and Ross and Huber (1985). Respondents who work for 5-8 hours are low on both the dimensions compared to other respondents. It also proves that unmarried respondents, unhappy with current annual income, less qualified and less experienced respondents who work only 5-8 hours will not prefer to work more than 8 hours. This finding contradicts with White et al., (2003). Hence their work life balance would be better than the other respondents who work more than 8 hours in office. Using weighted average technique, the researchers have revealed that the majority of respondents feel support from supervisor or colleagues is the most important attribute for WLB. The next important attribute is more flexible hours; this result is aligned with Andukuri et al. (2013) and is followed by time off during school holidays. The respondents feel the least preferred attribute of WLB to be social service. This finding is against the result of Ducharme and Martin (2000). This research reveals that if the respondents spend time on social service, they are unable to balance work and family environment. The researchers also found that going to picnic or excursion plays an adverse effect on WLB, since the maximum number of respondents with less annual income would not prefer to go for picnic or excursion arranged by the company, as they are unable to spend time with family members, and have financial problems and health issues. The respondents say they don't require rest room facility offered by the company which leads to non-productive working hours at the workplace; and would be accumulated for the next day, which ultimately results in poor WLB.

IMPLICATIONS OF THE STUDY

The company should educate women employees that require adequate rest in between work hours. This may lead to more productivity and reduce fatigue of employees working for long hours at monotonous work. Women employees feel that going for picnic or excursion will create issues in WLB. Therefore, it is the duty and responsibility of the management to create awareness among employees about the recreation activities which would help them achieve greater WLB as well as present the opportunity to reduce conflicts among employees with supervisors or colleagues and family members. The respondents feel spending time for social work leads to poor WLB. The supervisor should encourage and motivate employees to work for society which will help them to burst or divert their work or family stress to pleasant work. This brings them more energy and positive attitude in both work and family environment. Policy creators should also spend money in creating crèche facility and counseling facility. The employees are dissatisfied with

the counseling facility available in their company, hence, the management should appoint properly trained counselors who can guide employees with respect to their work and family related issues.

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Rape Talks Louder Than Guns Feminising Men via Wartime Rape in Judith Thompson's *Palace of the End*

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ABSTRACT

Wartime rape is a widespread phenomenon that accompanies most wars and conflicts, especially contemporary ones, yet there is much misconception about it. Earlier studies done on war rape focused exclusively on the experiences of female victims. Men as victims of war rape is a topic not many are familiar with or even aware of. The inclusion of men as victims of rape is very rare in society. Moreover, the rape of women often finds its way to the stage, but not the rape of men. Thus, the rape of men in time of war has been overlooked due to unfamiliarity with the topic or to the myth of the invulnerability of man to rape. More importantly, wartime man rape is not taken into consideration as a strategic weapon. Thus, the present study aims to explore the sexual victimisation of men in times of war as an orchestrated combat tool. It investigates the reasons why American combatants raped Iraqi prisoners in Judith Thompson's play *Palace of the End*. Inger Skjelsbæk's Social Constructionist Concept is used to explain the rationale behind wartime man rape and to map out the mechanism of its victimisation and perpetration. The present study concludes that men can be victimised like women by rape. In addition, the present study contributes a new understanding of the strategic function of rape with the inclusion of male rape. More importantly, it concludes that the rape of male prisoners in this play is not a natural consequence of war stemming from sensuality or abnormality but a pre-planned institutional act to dominate the perceived enemy.

Keywords: Judith Thompson, *Palace of the End*, strategic weapon, social constructionist concept, wartime rape

INTRODUCTION

The horrors of rape are a well-known, widely discussed topic worldwide but the rape of men is rarely discussed openly. Even more so, the wartime rape of men is hardly ever discussed, even in literary works. Indeed, the use of male rape as a strategic weapon of war has been overlooked by literary works. Dramatic works usually portray wartime rape as a feminist issue by dramatising women as targets of rape, and men as rape perpetrators (Salih, Kaur, & Yahya, 2016). Wartime man rape was an issue disguised under catagories such as 'torture' (Blatt, 1991) and 'crime of violence' (Cleiren & Tijssen, 1994). Unlike the rape of women, man rape is neglected for various reasons, but mainly because it threatens the very fabric of masculinity that hinges on the myth of invulnerability of the hetero-normative man to rape. Moreover, there is the misbelief that only homosexual men are raped because 'they ask for it', whereas the hetero-normative man is not (Wakelin & Long, 2003). In fact, these assumptions enhance the submersion of this phenomenon. Although rape and sexual violence against men have been reported in 25 wars and armed conflicts around the world, including in the former Yugoslavia, Sri Lanka, South Africa and more recently, Iraq (Russell, 2007; Sivakumaran, 2007) and now Syria, these reports are categorically overlooked in the contemporary dramatic world. Equally, wartime man rape as a strategic weapon is overlooked and/or not considered as good fodder for the stage.

Most of the previous dramatic research on wartime rape failed to recognise man rape in wartime since women's victimisation has always been the sole point of research. These studies examined female victims-combatants and civilians and shifted the attention away from men. This is due to the typical discourse surrounding rape that casts the woman as the non-violent and the man as the perpetrator, by attributing it to misogyny and hegemony over women, as it would appear that "[war] provides men with the perfect psychological backdrop to give vent to their contempt for women" (Brownmiller, 1975, p. 32). To list some works, Ellen Mclaughlin's play *Ajax in Iraq* (2011) and Eve Ensler's *Vagina Monologue* (1996) both address these issues. Women, combatants or civilians in both plays, are depicted as victims of masculinity and the patriarchal military system. In both works, rape is depicted as a natural product of a biased society that considers women as weak and objects of rape, and man as powerful and a rapist by nature, either because of his sexual drive or hatred for women. Consequently, these studies draw no attention to man rape in a war context. By excluding man rape from dictionary definition, rape is associated synonymously with women.

Furthermore, dramatic studies tend to focus on man rape in peacetime only. Wartime rape of male civilians and its strategic function of humiliating and dominating the enemy are rarely tackled. Some of the research into man rape is stereotypic in its approach. First, it is

shown that the rape of man happens only in homosexual communities. One example is found in David Rudkin's The *Sons of Light* (1981) and Mark Ravenhill's *Shopping and Fucking* (1996). These plays depict man rape as a homosexual, queer act. Second, past studies dealt with only one type of man rape, that is male/male rape within a peace context, as depicted in James Dicke's novel *Deliverance* (1970). There is, however, a noticeable dearth of studies on the strategic function of wartime rape.

Accordingly, the present study aimed to explore the sexual victimisation of men in times of war as an orchestrated combat and political tool and to consider the motivations behind this act of violence and domination. The study does this by investigating the act of rape committed by American soldiers against male Iraqi prisoners in Judith Thompson's play *Palace of the End* (2007) as an exercise of power and humiliation. Since male rape has not come under any theoretical lenses in previous studies, Inger Skjelsbæk's *Social Constructionist Concept* (2001) is utilised as a framework to look at the process by which men are raped, with a focus on the reversal of the male-female power dynamics of wartime rape.

The current study contrasts sharply the feminist paradigm of 'male-female' that sets the male as the stereotypical rapist and the female as the ultimate victim of rape because of misogyny and gender conflict (Brownmiller, 1975). This study refutes all these assumptions and argues that man rape is a war tactic exploited to humiliate and emasculate men and dismantle and distort their ethnic and religious identity to achieve the essential aims of war. The analysis will focus on man rape enhanced by the political motives beyond their commitment in *Palace of the End*.

THE SOCIAL CONSTRUCTIONIST CONCEPT (2002)

Inger Skjelsbæk (1969) is a Norwegian psychologist and peace researcher specialising in sexual violence during war. Her Social Constructionist concept maps out the complex relationship between rape as a form of sexual violence and war. It also explains why men are targetted for rape in warfare although women constitute the largest group of victims. More importantly, it perceives rape as a weapon of war to achieve more of the strategic goals of war. Accordingly, it argues that both men and women can be victims and understands femininity and masculinity as malleable categories that could conceivably be applied to anyone within contexts of conflict.

However, Skjelsbæk's concept posits that the hierarchical power relationship between the genders is not perceived as fixed and universal but flexible. Thus, it revolutionises the traditional assumption that the woman is the only victim and the man is the ultimate rapist. Moreover, it emphasises that the hierarchies of power and dominance are constructed through social interaction and transaction between gender, ethnic, religious, political and other identities. Rape as a practice of political power and control is not a result of gender and patriarchy but a combination of many

social transactions, including gender and patriarchy. Consequently, the victim of sexual violence in the war zone is victimised by feminising both gender and the ethnic/religious/political identity to which the victim belongs; likewise, the perpetrator's gender and ethnic/religious/political identity is empowered by becoming masculinised. Briefly speaking, these positions under the Social Constructionist Concept demonstrate clearly that wartime rape is institutionalised violence deployed to realise far-reaching goals via planned political and military agenda. It is committed against and by both men and women, whose bodies are weaponised to achieve planned strategies.

Practising masculinity in international conflicts is not born of biological impulse; it is situational, governed by pre-determined outcomes. Skjelsbæk's Social Constructionist Concept refutes the static nature of war rape that posits women as mere victims and men as the sole perpetrator. It, however, expounds a dynamic theory that posits that the hetero-normative man is in the victimisation cycle and the hetero-normative woman is in the cycle of perpetration, respectively. In this case, the victims, the Iraqi prisoners, are feminised and the offender is masculinised, irrespective of their gender: "The base of violence against both men and women is not in hetero- or homosexuality of an individual male actor but in an inseparable construction of masculine = heterosexual = power" (Skjelsbæk, 2001, p. 225). This equation highlights masculinity as a core element, by having power enhanced by heterosexuality.

Thus, the concept of masculinity is related to heterosexuality, which means that the perpetrator, be it man or woman, will be masculinised. Thereby, a new perception of wartime rape is found by including men and women as both victims and perpetrators.

The goals of emasculation and feminisation underlying orchestrated wartime rape are clearly stated through the assertion that "the purpose behind targeting victims by sexual violence is to masculinize the identity of perpetrator and feminize the identity of the victim" (Skjelsbæk, 2001, p. 225). Actually, this argument includes men's victimisation in its theorisation and women in its perpetration. The occurrence of this reversal of gender roles is related to circumstantial and contextual factors such as war.

JUDITH THOMPSON'S *PALACE OF THE END* (2007)

Palace of the End is the play of the Canadian playwright Judith Thompson (1945). It is based on real-life persons and events dramatising the act of rape and sexual abuses committed against Iraqi detainees by American combatants in the Abu-Ghraib prison during the American war in Iraq. These highly publicised rape acts came to be known later on as 'the scandal of Abu-Ghraib' (Stemple, 2009, p. 605). Through the use of the monologue technique, the dramatist gives a straight and authentic record of what actually happened in this war, away from the falsified narratives presented by American policy. Thompson is inspired in naming and structuring content as well

as character by the atrocious photos of Lynndie England and other soldiers in the media as mentioned in her "Playwright's Notes" (Coates, 2015, p.169). She names her character 'Soldier' to give her a national and general identity. The play dramatises acts of rape in which the victims are men, making man rape no longer an anomaly (Cohen, 2013).

DISCUSSION

Feminising Men via Wartime Rape

To underline the mechanism of man rape and its perpetration alongside its strategic use as a war tactic in *Palace of the End*, there are some structures and dynamics to be first considered. There are certain structures of power and dominance as well as masculinisation and feminisation that are motivated by the dynamics of patriotism and national identity. Intentionally, these are adopted to humiliate the male prisoners and their national identity in order to realise far reaching purposes by subduing them to America's will. It can be claimed that the relationship between the two is that of colonisation. Thereby, the text analysis will be organised accordingly. These structures and motivations will be explored by examining acts of rape that are committed by American soldiers on Iraqi prisoners in Thompson's play, in light of Skjelsbæk's Social Constructionist Concept. They are posited through mapping out the mechanism of victimisation and perpetration as a practice of power and dominance. Thus, rape is not an end in itself to show

the perpetrator's sexuality but a tool of projecting violence (Seifert, 1993).

Structures and Dynamics of Wartime Man Rape

In Skjelsbæk's concept, the focal points in understanding the strategic rape are power, masculinity and femininity. They are different from the feminist approach, which focusses on the patriarchal victimisation of women. These points interrelate since the common meaning of masculinity includes having power, especially the physical power to attack and subjugate femininity. In the current study, power and subjugation are employed on the national and collective level. Man, like woman, is objected and feminised by rape in times of war. This means that there must be a masculine power in this process which is absolutely 'other' than the victimised man. In Thompson's play, the masculine role is exercised by the female character, Soldier, and the feminine role is taken by male figures, the prisoners. It is a reversal of the traditional masculine and power hierarchy that sets man at the top and woman at the bottom of social power relationships. Arguing that man, like woman, can be victimised in warfare and thus feminised introduces a new perception and explanation of this type of rape, which diverges from the feminist gender paradigm of 'male-female' (Skjelsbæk, 2001). Taking this into consideration, power, masculinity and femininity are not gendered, since gender is related to social and cultural roles. Therefore, the roles of 'powerful' and

'powerless' are flexible and not assigned to gender in wartime by the one who is more powerful and dominant (Skjelsbæk, 2001). They are the key elements in understanding the organised nature of war rape in Thompson's play, which highlights the complex perpetration and victimisation process of man rape.

Collective power and dominance. Wartime rape, in Skjelsbaek's concept, is a practice of power and dominance over the enemy in order to achieve strategic aims. Skjelsbæk stated that rape is "an exertion of control over the enemy's bodies and sexual entity driven by far reaching military and political goals" (p. 47). In Thompson's play, the hand of power is masculine in that the American combatants exert dominance over the feminised victims, the Iraqi prisoners, by perpetrating rape against them. Thompson names the perpetrator 'Soldier' to show that she is a representative of the American military institution in general. Skjelsbæk clearly stated that "the masculinized and feminized identities are situated in a hierarchical power relationship where masculinized identities are ascribed power and feminized identities are not" (p. 226). In a war context, where human relations are condensed into power hierarchies, rape becomes the means by which these hierarchies are intensified. Usually, when talking about rape, the victim is understood to be a woman and the aggressor, a man. However, in *Palace of the End*, the feminine individual is not a woman but a male

prisoner who is emasculated by rape and pushed into a position of powerlessness traditionally attributed to women.

In the play, different acts of rape are committed against the detainees. These acts indicate power and submission dynamics for strategic goals. One of these acts of rape is nakedness. Coercing the Iraqi captives into nakedness and herding them in a sexually abusing way is also considered an act of rape. Because rape includes in its meaning and definition nakedness and duress, the definition of rape and sexual abuse has been broadened by including "acts that did not constitute physical invasion of the body, penetration or even contact, such as forced nakedness" (Zawati, 2007, p. 31). Although the ideas for rape are the character, Soldier's inventions, these ideas are instructed implicitly if not directly by her military training for her to act upon, as she says in the play:

> Human pyramids WAS ALL MY IDEA. Actually, it's the first thing that come to my mind when I walked into that prison and seen all them men that look exactly alike. I know what might be fun: HUMAN PYRAMID WITH NAKED CAPTIVE MEN" (*Palace of the End*, p. 15)

She talks about one of her rapes, saying that she accumulated the naked male prisoners' bodies to form a human pyramid. She feels proud of her egocentric actions as she declares, "And I am very proud to say that" (p. 15). This incident of war rape both in

the play as well as in the actual photos of prisoners show how the victims were forced to undress while being sexually threatened (Sivakumaran, 2007). Soldier exploits her military power over the captives by forcing them to be naked and to shape a pyramid made by human bodies as an act of humiliation and emasculation. Emasculation occurs because nakedness, being a form of rape against men, "can reduce the targeted man's status to that of a 'de facto' female, which in turn sends the message that his community is 'lesser' as well" (Manivannan, 2014). This is what is meant by turning a man's body during war into a symbolic construction by which his community is shamed and emasculated.

In return, the abused prisoners are reduced to a feminine position characterised by powerlessness, which becomes the source of Soldier's amusement. Again, there is a relationship between amusement as a motive for humiliating the captives by rape and their humiliation by feminising them through rape. Thus, Soldier's exultation of power stems from "the coerced submission of the male prisoners" (Rajiva, 2007, p. 228). The point is that the actors in a real war scenario are neither feminine nor masculine but are placed in such position by the conditions of war. By remembering that a soldier is not an individual representation but stands for the policy of the nations at war, in this case, American policy, the study concludes that man rape in this drama is institutional since "men being raped by [a]

woman is an ultimate public humiliation and emasculation" (Couturier, 2012, p. 7).

Making fun of the prisoners "willies" is another case of rape practised by the character, Soldier, as rape is defined to include "any violence, whether physical and/or mental, carried out through sexual means or by targeting sexuality" (Lewis, 2009, p. 3). It is used in this context to humiliate and dominate the prisoners as Soldier directly confesses that "according to their culture, me laugin at their willies was worse than a beatin', way worse" (POTE, p.15). Clearly, the collective identity of the prisoners is set by the perpetrator. She is completely aware of the cultural considerations of sexual entity at play in the context of this conflict. Therefore, she attacks them sexually to show her American dominance over them. Actually, psychological degradation of the Iraqi prisoners through nakedness and ridicule is considered a plan for humiliating them and their nationality. Thus, male rape "attacks a man's personal and social identity, leaving long-lasting psychological consequences for the victim" (Russel, 2007, p. 27). In this context, empowerment and supremacy are extended to the American soldiers and their national and ethnic identity, while dehumanisation and humiliation extend to the prisoners' collective identity. In *Palace of the End*, the rape of the male prisoners functions as a means by which the combatants, male and female, show power and dominance, as well as their ethnically superior status to the victims.

The rape of the male prisoners is institutional, not a personal or natural product of war, as evidenced by the American claim that they are destroying terrorists. Prisoners are consistently labelled 'terrorists' in the play, as Soldier says:

> We was not entertaining ourselves. We was breaking down the terrorists.
>
> And it worked. We did attain information (POTE, p. 16).

The text clearly shows that these claims against prisoners were orchestrated in order to justify American brutality and violation of their enemies. Ethnic, racial, religious and nationalist hatred is the motive that aids in the dehumanising of the enemy's army and their civilian population through the act of rape as an effective warfare tool to achieve strategic aims (Skjelsbæk, 2001). Soldier insists that rape is a war tactic by which the army can get information from the enemy, obligatorily believing that these men represented the enemy who master-minded the attacks of 11 September, 2001 and other terrorist attacks against America. She clearly states that they are:

guys who had

> KILLED AMERICANS. GUYS WHO WERE
>
> PLANNING ANOTHER 9/11, dude, AND
>
> YOU ARE UPSET THAT I laughed AT
>
> THEIR WILLIES? (POTE, p.18)

These accusations expose the real motive behind the atrocities committed by the American soldiers. These violations are neither personal nor individual but institutional and pre-planned acts executed to dehumanise the Islamic and Iraqi identity (Holloway, 2006, p. 140). Thus, this form of rape is a violation, a means of interrogation that grants the perpetrators power to ridicule and weaken their victims. In other words, by practising this form of rape, Soldier acquires power and superiority over the prisoners, who are powerless. This inversion of power relations occurring in specific contexts is "a transaction of identities between the perpetrator and the victims i.e. how their social identities become situated" (Skjelsbæk, 2001, p. 226). This concept claims that wartime rape is a matter of acting, not being, which means that it is not about gender and sexuality but about the situation and circumstances; the latter are the conditions that decide who will be the victim and who will be the aggressor (Skjelsbæk, 2001). Thus, the perpetrator's sexuality is not an end by itself in the act of rape, but a means of projecting violence (Seifert, 1991).

In the text of the play, another reference to this strategic and collective power lies in Soldier's confession that:

> I was doin what had to be done,
>
> *to get the intelligence*…. I was softening them up; you might put out hard butter on the windowsill" (POTE, p. 15).

The American combatants integrate the motives of their rape of Iraqi prisoners with the collective conception of their own national and ethnic identities. Rape in this

war context is about power and dominance over the victim as a representative of his ethnicity or religion, and not done to realise for sexual or individual motives. Therefore, performing rape in public and against large numbers of people is intended to realise a further end other than sexuality, that is, it is to spread fear in the community (Oosterhoff et al., 2004). In fact, these acts of rape are perpetrated as part of a strategy to destroy a particular ethnic or religious group, which in this case, was the Iraqis. The feeling of having fun and of ecstasy arising from these acts stem from a political agenda that is based on dehumanising and despising the Muslim prisoners by attacking their sexual integrity.

Thus, this is clear evidence that the rape of the prisoners in this play is a strategic tool. Soldier declares this fact again when she states that she was trained to do what was supposed to be done. It can be said that "In moments of national conflicts, the formation of national identity and collective subjectivities involving acute power relations can occur in moments of exceptional physical violence and psychological upheaval" (Edkins, 2003). Thus, the prisoners are the victims of this war and the American combatants are the means of achieving the far-reaching goals of the conquering nation.

Engendered masculinity and femininity. In this play, American war leaders employed rape to humiliate and intimidate prisoners in order to discourage resistance to American forces. This strategic combatant tool

masculinises the perpetrator and feminises the victim. Men when victimised by rape, take the feminine position of women: "a man who is victimized though sexual violence in the war-zone, is also feminized" (Skjelsbæk, p. 225). The position of the perpetrator is also drawn as that of masculinisation, depending on the structure and dynamics of masculinity and femininity. Rape appears as a form of violence that best communicates these structures and dynamics of masculinisation and feminisation (Skjelsbæk, 2001). Masculinity as an expression of military dominance is heightened in times of war and conflict.

In *Palace of the End*, there are many forms of rape that demonstrate the mobilisation of masculinity and femininity in this process of organised sexual victimisation. The character, Soldier's, participation with another American soldier, Ronnie, in de-masculinising the prisoners by coercing a religious Iraqi prisoner, 'Sheikh', to have sex with another prisoner is also named rape. Thus, the forced sexual intercourse between the prisoners themselves is considered war rape as happened at Abu-Ghraib (Sivakumaran, 2007; Maier, 2011). Thompson depicts this act through Soldier's revelation:

One of 'em, who the other ones seem to look

up to? I think he was like, a holy man. Ronnie

goes to him: "Hey you. Wise Man. Mullah. Fuck him, fuck your friend in the butt, man! Do it now," (POTE, p. 21).

In so doing, the American soldiers deliberately impose the label of 'homosexual' on these prisoners even though they are not homosexual men, thereby bringing disgrace to the prisoners and their community. Talking about the psychological damage caused by this rape, these victims "struggle with the 'taint' of homosexuality attached to male/male rape," (Sivakumaran, 2007) which causes societal stigmatisation especially in Arabic Muslim societies. This is the far-reaching strategic intent of the perpetrator i.e. "to cast this emasculating 'taint' on the victim, his community and society, and simultaneously cast the role of masculinity onto herself and her nationality," (Vermeulen, 2011) as Soldier does in this rape incident. Skjelsbæk stated that the victim of sexual violence in the war-zone is victimised by feminising both the sex and the ethnic/religious/political identity to which the victim belongs; likewise, the perpetrator's sex and ethnic/religious/political identity are empowered by becoming masculinised (p. 225).

Masculine power here is associated with the dominant male and female combatants who are empowered to impose a weaker position on the prisoners. Accordingly, this form of rape de-masculinises the victims but masculinises the perpertrators through their domination (Lewis, 2009). Gender does not equate with the hand of power because the key element is power, not gender. This means that whoever wields power and dominance is the masculine, whether man or woman. Both men and women may be victims, and must understand femininity

and masculinity as malleable categories that can conceivably be applied to anyone within conflict contexts (Skjelsbæk, 2001). Thus, these ascriptions of power are not gender-related but power-related.

Yet another demonstration of masculinity and femininity behind institutional rape in the play is masturbation. Forcing one of the detainees to masturbate is considered rape (Peel et al., 2000). It is clearly revealed by Solider in the text:

> I will tell you something. We did a hell of a lot of
>
> Worse than what you seen. Or what you heard.
>
> What YOU seen is tiddlywinks: we made a
>
> man masturbate. Ohhhhhh. So SCARY!!!! SO?
>
> So WHAT?   (POTE, p.18)

This type of wartime rape, 'enforced masturbation', between victims or with perpetrators is also reported in Abu-Ghraib (Manivannan, 2014, p. 645). This type of rape of the prisoners denotes dehumanisation through sexual acts in a culture that considers a man's masculinity as the main element of his superiority and dignity. The character, Soldier, is ascribing masculinity to herself and femininity to the prisoner when she forces him to masturbate. Raping the captives in this way is not for sexual gratification, but to achieve a political agenda that aims to destroy the dignity of the enemy, the Iraqis, by arousing fear and shame in the community. Such acts

guarantee the supremacy and dominance of the perpetrators over the powerless (victims). Both victims and perpetrators are symbolic representations of their national and religious identities, masculinising the perpetrators empowers their identity, while feminising the victims weakens their identity.

Thus, humiliation resulting from rape in this context is a strategic weapon because "sexual violence is a weapon of war if the effects are so dependent on time and circumstance" (Skjelsbæk, 2001, p. 229). The captive in this case of rape is powerless and obligated to do whatever he is forced to do. In the play, whether rape is labelled as "intelligence" or "destroying the terrorist," its ultimate aim is to humiliate the enemy by denying them their humanity. In times of conflict, the structures of masculinity are more prominent, so the male victim is subjected more significantly to the contamination of feminine or homosexual characteristics (Seidler, 2006). Skjelsbæk thus maps out the perpetrator and victim's hierarchal power relationship and asserts that the perpetrator is masculinised, whereas the victim is feminised, irrespective of whether male or female. This claim refutes the universal assumption that the heterosexual man is invulnerable to rape and highlights male victimisation in a war context. The American war agenda on Iraq seen in this play supports the argument that men, like women, can be victimised by rape in wartime to achieve strategic national goals. Thus, masculine sexuality and violence are connected inextricably (Couturier, 2012).

The American war in Iraq was a geopolitical one in which America tried to impose its military control over Iraqi prisoners and their collective identity via rape. Thus, man rape is also centred on power and masculine domination as in the case of the raped of women; therefore, both forms of violence include similar constructions of masculinity and masculine-heterosexualised domination (Sivakumaran, 2007). The powerful position and myth of men being invulnerable to rape are diminished the moment a man is raped and rendered powerless. The normative belief is that the heterosexual man is not an object of rape but according to the present study, this belief is inaccurate. In return, Skjelsbæk's concept argues against the invulnerability of the heterosexual man and against the homosexual assumption of male war rape. A man raped by another man is stripped of his masculinity and is forced to take the feminine position. Thus, ascribing homosexuality on the prisoners by forcing them to rape each other is "largely an exertion of power and control through feminizing the other by forcing a man into the sexually submissive role of the female" (Skjelsbæk, 2001, p. 225). In this way, a man's body works like a means of communication by which many messages are sent from one side to the other in the conflict. The rape of their men relays to the Iraqi community that "their male members, their protectors, are unable to protect themselves …the manliness of the man is lost and the family and community are made to feel vulnerable" (Sivakumaran, 2007, p.

269). Accordingly, the male prisoner and his whole community are stigmatised and disempowered since rape has turned the male prisoner into a social body; symbolically, the victim's national identity is also feminised and humiliated. The demonstration of ethnic variants and the masculine military power of the American combatants over the identity of the Iraqi victims, who are predominantly Muslim, becomes public. American leaders tried to justify that the "[the] rapists are low-ranking personnel who represent only themselves and not America and whom they labeled 'the seven bad apples' who had to be punished for embarrassing the military and the administration" (Coats, 2015, p. 176).

By this feminised depiction of man in *Palace of the End*, the dramatist protests against the previous argument that war rape is a gender-based violence that targets only women because of misogyny and/or their ethnic and religious identity. Thus, man rape is acknowledged as "part of [the] backlash against feminism." (Stemple, 2009, p. 629). In this way, the present study presents a new strategic reading of war rape that is different from the feminist one.

CONCLUSION

The present study dealt with man rape in Judith Thompson's play *Palace of the End*. The rape of men is believed to be abnormal or invisible. However, the act of man rape as a strategic weapon of war has been overlooked under the guise of homosexuality, gender-based conflict and the invulnerability of man to rape. The dramatisation of rape against Iraqi male prisoners by American soldiers in Thompson's *Palace of the End* introduces new concepts to the understanding of wartime rape away from the labels of 'torture', 'crime of war' or 'natural consequence of war'. Thus, the study explored man's sexual victimisation in times of war as an orchestrated combat tool. Following Inger Skjelsbæk's argument in her *Social Constructionist Concept*, the act of raping men prisoners of war is an exertion of control over the enemy's body to achieve far-reaching military and political goals. In contemporary wars, men are the object of rape instead of the subject of rape. The present study proves that Thompson's play introduces rape as an exercise of power and dominance perpetrated against Iraqi prisoners by American troops. Rape functions to masculinise and empower the collective identity of the perpetrator, while simultaneously feminising and conquering the victim's collective identity. Therefore, the man's body is like that of the woman's in times of war; both are a symbolic construction through which many messages and meanings are delivered to the opposite side in a war. Finally, the study created awareness that man rape in *Palace of the End* is an intended act strategised to terrorise, dominate, emasculate and then defeat the collective identity as well as religion of the conquered by inflicting fear and shame on the captured Iraqi prisoners in order to end resistance and win the game of war.

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The Nature of 'Nature Tourism': Exploring the Role of Images and Imagination in Ecotourism

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ABSTRACT

In present day tourism, ecotourism has gained significant popularity and is an avenue to foster synergy between economic, cultural, and ecological growth. This paper attempts to demonstrate how the ecotourism industry uses the power of human imagination to generate tourism imaginaries. By employing these two tools, ecotourism industry plants a very unique notion of 'nature' in tourists' minds, in which nature remains pristine and immaculate. Although this notion hardly matches the actual reality, ecotourism showcases a fabricated reality of tourist spots to fulfil tourist demands. By drawing examples from the flourishing ecotourism industry of the Sundarbans, through in-depth interviews of tourists and analysis of tour brochures, the stark differences between imaginaries and actual reality are documented. Finally, this paper concludes that what ecotourism attempts to offer through imaginaries and the primary objectives of this industry are self-contradictory and can only be attained through the power of imagination.

Keywords: Ecotourism, imagination, imaginaries, nature tourism, Sundarbans

INTRODUCTION

India, blessed with rich geographical and zoological diversity, has always had a mixed relationship with the tourism industry. On one hand, tourism is one of the most important economic activities in a country like India, which is known for its biophysical as well as cultural diversity (Kakkar & Sapna, 2012). On the contrary, increasing number of tourists to a rather undisturbed natural region always brings anxiety to environmentalists and ecologists because of its projected impact on local ecosystems and biodiversity (Rizal & Asokan, 2014). Primarily, for this reason,

in the era of global warming and climate change, the tourism industry has modified the term 'nature tourism' to ecotourism to strike a balance between its economic benefits and socio-environmental impact. Firstly, it is important to clarify what is meant by nature tourism. It has a long history of meeting different purposes such as exploring nature for adventure, hunting or to engage in nature sports. In this context, nature tourism reflects the desire of humans to enjoy the beauty of nature as its ethereal beauty has always led people to explore and marvel at it. Natural aesthetic imagination plays a vital role in fuelling the interest in nature tourism (Denker, 2004). In order to satisfy their desire to experience the awe of nature through direct sense perception, humans travel all across the world.

The traditional mode of nature tourism creates a dualistic scenario altogether. On one hand, tourists prefer visiting unspoiled, pristine nature and also like to fantasise about the local inhabitants of a place. Nature-loving tourists tend to imagine that communities still do live in the past and strive to connect with the cultural aspects of local life. On the other hand, the natural landscape of tourist spots and its vicinity has been immensely transformed by tourism activities due to consumption-based modes of entertainment that are generally preferred by tourists. Therefore, owing to consumerism, tourists still remain as outsiders and fail to connect with the local lifestyle. Consequently, this type of tourism puts a huge toll on the local

environment as it slowly ruins the natural beauty of the place. In this day and age, although ecotourism influences every kind of tourism, in the case of nature tourism, it plays a crucial role in maintaining a balance of the socio-ecological fabric of tourist spots. In an effort to preserve the natural beauty and true essence of natural aesthetics, nature tourism is now synonymous with ecotourism, which is clearly revamping the idea of nature tourism at the very level of its scaffolding. It reduces the externalities of the tourism industry on local environments and on native communities, as well as promises to bring economic benefits to the host communities. Moreover, it also tries to provide experiential satisfaction to tourists by serving a holistic picture of tourist places, and creates an opportunity for tourists to connect with the local way of life.

Simply put, ecotourism is a broad term that attempts to explore the interaction between tourism and the environment. Naturally, when the environment is at the centre of attention, native people also become an integral part of ecotourism. Due to the wide range of possible interactions between these two terms (environment and tourism), the entire concept of ecotourism contains a significant amount of plurality. To just comprehend some bits of this plurality, World Conservation Union defines ecotourism as: "… environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature that promotes conservation, has low visitor

impact, and provides for beneficially active socio-economic involvement of local populations" (Lindsay, 2003).

Meletis and Campbell (2007) defined ecotourism as "responsible travel to natural areas that conserves the environment and improves the well-being of local people" (p. 851), as per the International Ecotourism Society. To capture this multiplicity of definitions, Gilbert (2007) highlights the manner in which the term ecotourism over time has become synonymous with terms like 'alternative tourism', 'environmental travel', 'green tourism', 'low-impact tourism', 'ethical travel' and 'soft-adventure travel'.

Through ecotourism, the tourism industry tries to fulfil its objectives by evoking a different realm of fantasy in the minds of tourists. To garner tourists' attention, this paper deposits that ecotourism uses images as a tool to conjure up fantasies. To create an avenue for green tourism, ecotourism industry uses the power of imagination to form an image of nature that needs to be protected or, at times an image of serene nature that must be experienced with care. Also, these carefully crafted images of nature create an own niche market which promises to strike an optimal balance between different types of tourists who either go through the hassle of exploring pristine, untouched natural spots or enjoy a comfortable and relaxing holiday - two supposedly contradictory demands.

In this context, this essay will particularly detail how imagination plays a central role in nature-based tourism in this age of ecotourism, and how nature has been 'imaged' to evoke certain kinds of imaginations and perceptions. Firstly, the role of imagination and images of nature will be reviewed and following that, the reciprocal relationship between tourism imaginaries and the tourism industry will be examined. In the final section, by analysing a case study of the thriving ecotourism industry in the Sundarbans, India, some real world evidence is presented to prove how these images and imaginations play important roles in ecotourism and how often that creates a lofty expectation of reality. In addition, this paper will attempt to demonstrate that the promises made by this ecotourism discourse are often contradictory and tend to obscure the actual reality of a place.

Role of Imagination in Nature Tourism or Ecotourism

Imagination is considered a precious gift of God to the human mind. As Reichling (1990) expressed, "imagination might be viewed as a power of the whole of human consciousness that employs intuition, perception, thinking, and feeling" (Reichling, 1990, p. 285). Perhaps due to our self-conscious state of mind, we, humans can experience the special ability of imagination. Imagination is an extremely liberating force that helps human beings overcome and figure out various difficult situations. It also unlocks the creative world to one's mind. However, the question 'what is imagination?' has always puzzled and divided humanity. An account of that is given in the context of

this paper. Imagination is a process whereby our self-conscious mind tries to fulfil our desires. It serves as an opportunity for us to place ourselves at a particular location where we would like to be. Imagination provides us a way to go beyond our everyday framework of time and space and to explore ourselves in a new spatial as well as temporal domain. Often, through this process of imagination, individuals directly connect with nature or natural objects. Most people during their childhood have visualised various kinds of imaginary objects in the clouds or on a damp wall. Beautiful natural objects play a vital role in evoking imagination in one's mind. It is a well-known fact that the aesthetic beauty of natural landscapes has influenced poets, writers or artists over the years in their creative endeavours. A natural landscape provides a sense of aesthetic beauty in our mind, and this aesthetic beauty provokes us to imagine ourselves in front of various beautiful natural landscapes. Thus, there is a cyclical process between the imagination of natural aesthetic beauty and gratification of that beauty that invokes further imagination. It could be perceived that people travel because they want to actually sense the aesthetic beauty of nature that they have imagined or because travelling to a new place induces the power of imagination through sensory perception of aesthetic nature. Hence, this paper posits that imagination acts as a critical link between these two domains - nature and tourism.

Schroeder (2009) illustrated five types of imagination to experience natural environment. One of the main reasons for a tourist to visit new places is to experience his or her imaginations. However, one can assume that these imaginations about a place may or may not match reality. In that case, tourists often imagine any missing components of their imagination and try to fulfil their desire of seeing a place in the exact way they imagined it. Schroeder named this phenomenon as mental editing. For example, in one scenario experienced by the researcher at a forest safari, the co-tourists had pre-conceived thoughts that they would see deer or elephants in the forest, but in reality it was not really easy to capture a glimpse of wildlife. However, some of them were so eager to experience their desires that they repeatedly claimed to see a deer behind the groves although in reality there were no deer present.

In addition, tourists often imagine themselves associated to their previous connection with similar types of landscapes. They attempt to exaggerate their past memories and imagine themselves as somehow connected with landscape in the past. Schroeder gives an example of this kind of imagination as he mentions, "Perhaps the wild garden means a great deal to me because it was my stepping stone into a bit of past, with the woodland flora of my childhood abundant" (Schroeder, 2009, p. 13). He termed this kind of imagination as time travel. In time travel, at times even tourists go beyond their actual life experiences and try to connect with the local communities of earlier times by imagining their presence at that particular landscape.

Not only do people travel through time, but on many occasions tourists travel through space as well. They are prone to imagining themselves in a place other than their present location. It happens particularly after a tourist returns from a tour. For instance, when idle at home or at the workplace, he or she goes back to the recently visited natural landscape and imagines himself or herself to be present there again. On other occasions, when tourists are in a natural landscape, fictional stories or fairy tales from their memories lead them to a completely different imaginary world. Schroeder addresses this as travel to other places. The last kind of imagination is quite anthropomorphic, as tourists try to impose a human character on nature such as when they refer to nature as 'mother nature'. This kind of imagination evokes a completely different type of aesthetic beauty and is called personification. All these categories show that by imagining natural landscapes and aesthetic natural beauty, tourists seek a state of mind in which they can position themselves in a virtual world. Kearney (1993) rightly captures the effect of imagination as follows:

> It wagers that imagination is the very precondition of human freedom-arguing that to be free means to be able to surpass the empirical world as it is given here and now, and in order to project new possibilities of existence. It is because we imagine that we are at liberty to anticipate how things might be; to envision the world as if it were otherwise; to make absent alternatives to be present to the mind's eye. (p. 6)

Along with the aforementioned mode of imagination, ecotourism has a recapitulatory attribute which can be termed as colonial legacy. Mostly, in countries like India or other developing nations, colonial legacy is considered the primary source of imagination which aids the success of ecotourism (Gilbert, 2007). In this context, Echtner and Prasad (2003) identified three recurring myths which are inevitably connected to imagination and are particularly essential for tourism in developing countries: the myth of the unchanged, the myth of the unrestrained, and the myth of the uncivilised (Salazar, 2012). These three myths are the prime drivers for ecotourism expansion which attract foreign tourists to developing countries. Tourists from developed nations with their own colonial legacy still imagine developing countries as a place where one can get a taste of unspoiled and untouched nature. History evokes nostalgia for various places, and for the nature and culture of these colonies. People readily imagine historical memories, and the consequently evoked nostalgia drives them to return to those same places as tourists to cherish similar experiences. Appadurai (1996, p. 76-78) called such nostalgia without lived experience as "armchair nostalgia" or "imagined nostalgia" (Salazar, 2012, p. 871).

To extend the type of imagination as discussed above, the researcher would like to

propose one additional form of imagination. In the age of ecotourism and consumerism-driven lifestyle, this imagination can be termed as intellectual imagination. This offers a fascinating mixture between the ideology of non-consumption and conservation of nature. Tourists create an altered image of themselves which does not match their typical daily image of a consumer. In the era of increased global warming, when environmental issues have become pertinent topics even in the socio-political sphere and in popular social discourse, this altered image helps to place oneself on a pedestal. It also grants mental satisfaction as one is transformed from being a tourist as a consumer to being a tourist as a conserver. Additionally, as ecotourism provides a platform to connect local people and the tourism industry through economic involvements, tourists gain a sense of fulfilment through involvement in philanthropic work. The imagination of this altered image is the source of intellectual satisfaction for thousands of tourists who not only desire a leisure holiday but also equally cherish any intellectual stimulation they can derive out of the experience.

To conclude, it can be said that human life is somehow bound by these inclinations for imagination, beauty, aesthetic nature which can extend beyond actual life. Some even argue that the specific purpose of human life is to make the world imaginative (Salazar, 2012). When one imagines visiting a beautiful place, it automatically reinforces the assumption that the current place where one lives in is not beautiful enough and

cannot evoke similar aesthetic sensations. This assumption converts someone into a tourist as travelling to new places offers the opportunity to access the material manifestations of imagination. Projecting artistic structures onto nature is possible because of imagination as it acts as the main link between these two domains. Our imagination enables us to appreciate nature as if it was a piece of art.

The following section will be an attempt to dissect the process through which the creation of imagination happens. The ways in which creation of imagination arises in the context of tourism through imaginaries will be demonstrated. For the tourism industry, imaginaries - in the form of posters, guidebooks, photographs, and blogs are used as a means to evoke imagination in the minds of tourists. Perhaps due to this reason, the tourism industry is marked as an "image production industry" (Harvey, 1989, p. 290 - 293).

Imaging Nature in Nature Tourism

Two main agents of tourism are tourists and the tourism industry. Often times, personal imagination interacts with institutional and industrial imaginations and in the process, both are influenced by each other. When we close our eyes and imagine ourselves before a spectacular natural landscape, the perception of nature as a source of aesthetic beauty evokes certain images. Various tourist guidebooks, posters, and tourism advertisements shape the imaginations tourists form of a tourist spot. This is an example of consumer-producer relationship,

where producers present certain images in front of consumers and these images together create the imaginations held by consumers. Through these means, the tourism industry tries to portray an aesthetic nature and their posters, leaflets as well as websites are very much inclined to this. Tourists tend to exaggerate this aesthetic sense through imaginations that are based on all these advertisements. In this manner, the industry presents a paradisiacal environment to prospective tourists and promises to fulfil dreams to consume the aesthetics of local landscape and population "through observation, embodied sensation, and imagination" (Salazar, 2012, p. 866).

To capture the attention of tourists, this industry strategically uses beautiful and visually appealing photographs of forests, seas, or mountains. They never expose the all-inclusive pictures of reality. "Eco tourists are often presented with sanitised or 'greenwashed' versions of destinations" (Meletis & Campbell, 2007, p. 864). For example, a photograph of a mountain landscape will neither capture the garbage heap in the valley nor the massive crowds that may be found due to presence of other tourists. This is because the photograph of a mountain landscape with only a partially highlighted reality can evoke the desired imagination in the human mind and the subsequent aesthetic desire, while the other mentioned attributes of the same landscape can act as repelling factors. The carefully chosen frame of the entire landscape is 'picturised' so dramatically that it feels like 'this is the heaven on earth'; nothing more can exist apart from this image of the landscape.

Our minds always imagine pictures of aesthetic nature which are pristine and full of wilderness. In this context, ecotourism raises the bar as it offers tourists the added satisfaction that they can exclusively be a part of the pristine nature, and at the same time, be able to contribute to the preservation of the same. On a critical note, Meletis and Campbell (2007) pointed out that ecotourism uses nature as a product and tries to go beyond 'natural' nature and imposes an artificial image of aesthetic nature in the minds of tourists. The idea of pristine nature or wilderness also acts as one of the steps to form an aesthetic component of nature. In this case, the researcher argues that this desire to see nature bestowed with an aesthetic essence is a consumeristic attitude but hidden behind a completely different veil. To fulfil the demands of tourists, local communities are sensationalised and the entire ecotourism experience is also packaged under the façade of greenery and pristine surroundings, as these are the main drivers behind romanticising nature. To meet the aesthetic wants of 'ecotourists', the ecotourism industry crafts a special kind of landscape that is portrayed differently from reality. It can be seen that the current concept of homestay is developed to exploit the same motivation. This idea specifically opens the door to relate and connect to local people and their culture. This kind of packaging also obscures the actual reality.

By romanticising nature this way and by perceiving nature as a beautiful object, a satisfactory subjective experiential memory of fabricated reality is generated.

In recent times, it can be observed that tourists enjoy the aesthetic beauty of a tourist spot mostly through the lenses of their camera rather than actually experiencing it through their eyes. Through photography, one can very easily capture an image of pristine nature or natural landscape and later on, these images are used as a tool for evoking one's imagination. Through this, photography becomes an integral part of the culture of tourism. This culture of photography however, portrays nature with attributes that are completely opposite to that of actual reality which Salazar (2012) states with reference to Barthes and Lowenthal:

> Still photographs stand diametrically opposite of the natural flow of life. The photograph is a silent, immobile rigor mortis of reality, a symbolic death (Barthes, 1972). This temporal ambiguity is of major significance for a great deal of tourist activities which are directed at experiencing the past (Barthes & Lowenthal, 1985, as cited in Salazar, 2012, p. 875).

Through this 'picture window', tourists perceive a serene view of nature which is aesthetically pleasing but is a 'frozen' and 'static' outlook. These kinds of images of landscapes create an ecologically deceptive perception (Bookchin, 1998). Ironically, to maintain this frozen, static view, people tend to exclude human beings or other tourists who are present at a tourist spot when capturing a photo. Human beings ultimately only appear in pictures when either the subject wants to place himself or herself in the photo or when one tries to capture an image of the local people. Individuals try to exclude other tourists from their photographs to highlight that the special moment only belongs to them and sharing a moment with others somehow makes it less exclusive.

Interestingly, in this context, Foale and Macintyre (2005) bring the attempt of Sontag to compare guns and cameras. In line with this comparison and consistent with current times, guns have been replaced by cameras because nature has become something which brings nostalgia rather than fear. This nostalgia creates stimulation for imagination to preserve the wilderness of nature. The idea of pristine nature is also directly connected to the idea of wilderness. Tourists find it extremely fascinating to imagine a part of the landscape being pristine, which means it is completely devoid of other human beings. Hence, the entire conceptualisation of wilderness is based on the drive for discovery which acts as the main source of motivation for many voyagers and explorers of the past. This drive of discovery can be justified by the thrill one experiences after discovering the landscape in a pristine state. This makes the experience exclusive as the individual imagines something that is to be seen only by himself or herself. This sheer

exclusivity of experience drives tourists to visit places they consider pristine in that sense. Unfortunately, this is not really the case for most places. Perhaps due to the difficulty of even imagining a place to be pristine, tourists are further motivated to locate comparatively unexplored places for exploration. However, in this case, the idea of pristine nature is solely dependent on the nominal presence of other tourists. Generally, the presence of local people does not affect the imagination of a place to be pristine. This also points to the notion that the local people are seen to be a part of the entire landscape and are viewed as 'pristine communities'.

Tourism Imaginaries and Impact of 'Imagination' on Tourism

The impact of imagination on tourism closely depends on how tourism imaginaries are circulated throughout society. Imaginaries drive tourists and the tourism industries in many ways. To become a passionate and an ardent tourist, individuals should employ the power of imagination in several daily activities such as reading novels, playing games, watching movies, telling stories, and daydreaming because planning a vacation and going on a holiday involve the human capacity to imagine or to enter into the imaginations of others (Salazar, 2012, p. 863). Imagination has a key role in a holiday experience as most holidays are lived before being actually experienced. Before visiting a place, one should undergo the phase of imagination that is gathered from various sources and this then builds an expectation

for the holiday. Looking at this process of imagination, it can be said that any form of tourism is completely meaningless if there are no expectations formed before the direct subjective experience. Various tourism agencies seem to clearly understand this and accordingly market their advertisement as:

> A holiday is not really a holiday unless you do something different … Getting away from the urban bustle into the lap of nature, in the midst of luxury, a face-off with the wild, a bit of challenge, a little adventure and loads of fun …That is what good holiday constitutes. (Mahua Tiger Resort, 2011)

A caption like this can often be found in many advertisements. The tourism industry creates a series of imaginaries based on a "complex system of presumption" (Salazar, 2012, p. 864). These presumptive imaginaries develop a desire for a set of experiences. Summarised in one sentence, "It is hard to think of tourism without imaginaries or 'fantasies'" (Salazar, 2012, p. 865).

Along with images and numerous discourses on places, host communities are also an integral part of the tourism industry today (Salazar, 2012). It could be asserted that the future of any tourism is solely dependent on generating these kind of images and discourses, along with ensuring their effective circulation. Considering the indispensable presence and importance of images in the tourism industry, Salazar (2012) introduced the analogy of 'mass production' in the context of creating images

in tourism sector. The mass production of images and various discourses are completely dependent on tourists and their fantasies. This complete dependence on the vast possibilities that imaginations offer allow tourists to experience every moment at tourist places. This phenomenon is akin to the opening of Pandora's Box, when anything and everything is possible at any moment. At this point, it is important to highlight that a positive feedback loop constantly works as diverse imaginations and diverse conceptualisations of a place occur in the mind of a person and in the process, unveils more avenues through which fantasies about a place can be shaped. If anything, tourism forms a vital part of the "image production industry" (Harvey, 1989, p. 290-293), in which identities of destinations and their inhabitants are "endless (re) invented, (re) produced, (re) captured and (re) created in a bid to obtain a piece of the lucrative tourism pie" (Salazar, 2012, p. 866). Tourism imaginaries seem to be primarily composed of various exclusive moments. The process of generating imaginaries is complex and extends not only to the spatial domain, but is equally present in the temporal domain as well. As Salazar (2012) states:

> Tourism images and ideas easily travel, together with tourists, from tourism-generating regions (which are also destinations) to tourism destination regions (which also generate fantasies) and back. However, tourism imaginaries do not float around spontaneously

and independently; rather, they "travel" in space and time through well-established conduits, leaving certain elements behind and picking up new ones along the way, and continuously returning to their points of origin. (p. 868)

In this context, it can also be seen that the very momentary nature of tourism imaginaries indicates its capacity for continual adaptation to new contexts and to new consumers.

Naturally, as local communities consider tourism as an alternative livelihood option, they get massively influenced by demands of tourists. To provide a romantic natural experience, native people drastically change their lifestyle, livelihoods, and depict themselves as being in tune with nature. As local communities use their cultural traits solely for the sake of business, it represents a very superficial set of practices carried out just to present an image of primitive harmony between nature and human beings. At the same time, tourists continue to enjoy various non-tangible objects like heritage, history, habitat, and handicrafts (Gilbert, 2007). The researcher emphasises that the consumeristic demands of tourists to meet their imagination has the ability to drastically change the entire community dynamics and can impact the way of life of locals to a large extent.

As described earlier, imagination is a self-liberating process and for tourists, this self-liberating urge acts as a guiding force to fantasise about natural landscapes. The

urge for liberation from modern day living, in terms of overcoming the monotonous aspect in most daily experiences, is one of the primary reasons for generation of these imaginaries. Tourism provides a window to temporarily escape this boredom and offers the opportunity to experience moments that are completely different and unique. Another motive behind tourism imaginaries, as put forward by the researcher, is somewhat more complicated as it is driven by a deep egoistic dissatisfaction which is entrenched in the modern way of living and pushes one to accumulate and consume in various forms. Tourism imaginaries also do the same by helping to create a self-image or by enabling an individual to satisfy his or her ego through mere accumulation and consumption of imaginaries. Dann (1976) distinctly mentioned these two underlying characteristics of tourist fantasies. There is an urge to overcome the monotony, anomie and lack of meaning of everyday life with a more satisfying experience - escapism and the desire for exoticism or difference. Besides, there is also the boosting of personality - ego-enhancement, leading to the accumulation of symbolic capital (as cited in Salazar, 2012, p. 871).

In this context, it can be concluded that tourism imaginaries can be considered as a set of tools which enable humans to expand their scope of imagination to multi-layered dimensions. However, in contrary, the presence of imagination in the minds of tourists also serves as a hindrance to experience the true essence of a tourist spot. In the next section, in order to make the claim more explicit, various ambiguities which have been discussed will be further explained with an example of the world famous ecologically-sensitive tourist spot, the Sundarbans of West Bengal, India.

An Illustration of Ecotourism in the Sundarbans

In this section, an illustration of the Indian Sundarbans ecotourism is provided to capture the way imagination and imaginaries influence ecotourism as well as to show how through these two tools, the tourism industry manipulates reality to grasp attention of tourists. During the field work[1] in the Sundarbans for her doctoral work, the researcher had scope of interactions and conversations with several tourists

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[1]The researcher has followed the phenomenological research methodology for conducting the field work for her doctoral research and that field research has yielded four articles published in various international journals: Baindur, M. and Paul, K. B. 2015. "Mapping the observer in the observation in Anthropocene: A Methodological Exploration". Humanities Circle, 3(2): 61–81. Paul, K.B. and Baindur, M. 2016. "Leopold's Land Ethic in the Sundarbans: A Phenomenological Approach". Environmental Ethics, 38(3), 307–325. Paul, K.B. 2017. "Introducing Interpretive Approach of Phenomenological Research Methodology in Environmental Philosophy: A Mode of Engaged Philosophy in the Anthropocene". International Journal of Qualitative Methods (SAGE), 16: 1–10. 1. Paul, K. B. 2017. "Towards a Community Based Ethic: A Phenomenological Account of Environmental Change from the Sundarbans's Islanders". Journal of Agriculture and Environmental Ethics, 30(5): 645–665.

who came from all over the world to visit the Sundarbans National Park. These casual interactions initially provided the impetus to explore the Sundarbans tourism industry and determine how imagination plays a significant role in the success of this industry. To systematically understand this, four random tourist boats were chosen from more than 35 boats visiting the Sundarbans and from each boat, interviews were conducted of five tourists who were chosen randomly, while keeping in mind not only the gender ratio but also from where these tourists were from. The tourists were mostly from Kolkata and other parts of West Bengal, as well as from Uttar Pradesh and Andhra Pradesh. A group of foreign tourists was also encountered, who came on a tour of India with the Sundarbans at the top of their list of places to visit in India. In total, interviews were held with 20 tourists and out of that, 12 in-depth interviews (seven males, five females, and among them, three foreign tourists, five tourists from West Bengal and four from other states) were selected to be analysed thoroughly to understand their experiences of and expectation from nature tourism in the Sundarbans. The researcher decided to go ahead with this number of interviews as saturation in terms of adding any new dimension to the concerned understanding was reached during the initial analyses of the 20 interviews. The interview was guided by questions like: "Why did you choose to visit the Sundarbans? How did you take the decision to stay at the particular island you are staying? How did you get to know about tourism in Sundarbans? Why

did you choose this time of year to travel here? How has your travel experience been?" Along with these questions, general enquiries regarding the socio-economic and demographic backgrounds of the participants were made. Moreover, a request was made that the participants share the photographs they captured during their travel, and based on the pictures, the researcher tried to discuss their experiences in depth. Evidently, the primary focus of the interviews was to document the experiences of the participants. The interviews were mainly conducted on tourist boats while a few were conducted in Godkhaali, which is the mainland area from where the boats depart and return. On average, the duration of the interviews was 30-45 minutes, audio-taped and verbatim transcripts were made. Close and detailed reading of these transcripts uncovered themes such as pristine nature, local culture, Royal Bengal tiger, waterscape, and freedom from mundane life. Through repeated readings of these themes, a better understanding of these interviews was obtained and based on that, conclusions were drawn as presented here. The experiences of the researcher in the Sundarbans islands for a period of one year provided interesting insights into how the tourism industry operates in this region. Moreover, examples of tour brochures and websites were perused to explain how imagination and imaginaries play an important role in the growth of the tourism industry in the Sundarbans. Also, to gain first-hand experience of traveling in the Sundarbans, the researcher was part

of a tourist group and experienced various aspects of the Sundarbans tourism as a tourist.

The Sundarbans is one of the central attractions in West Bengal and is a focal point of the Indian tourism industry. It attracts tourists from all over the world due to its geographical features and ecological diversity. In various tour posters and advertisements, it is easy to spot images of the Royal Bengal tigers, spotted deer, or crocodiles that are carefully positioned to portray the wildlife of this mangrove forest. These images of wild creatures have such a powerful presence in the outside world that even in the second decade of the 21st century, the Sundarbans is known as a 'man-eater's place'[2]. When interacting with travellers about their expectation from visiting the Sundarbans, most of them expressed that the Sundarbans provides a pristine natural environment full of colourful birds, mangrove forest, and exotic animals as well as the backwaters in the sketch of natural scenery in an open sky that meets the sea. These serene pictures

along with the images of exotic animals, especially tigers, incite imagination that makes people believe that wherever they go in the Sundarbans, they will encounter these creatures, as if the Sundarbans is the place for only these creatures. Contrary to this imagination, the official report by the Ministry of Environment and Forests (MOEF) in 2012 stated that the tiger population in the Sundarbans is sharply declining. In 2004, the number was 274 but it dropped to a range between 64 to 90 in the 2012 census (Indian Express, 2013). Judging by the finding of this report, the density of tigers in the Sundarbans and its surrounding area is 4.3 tigers per 100 sq. km. Moreover, according to a report by World Wildlife Fund (WWF) in 2013, 101 tigers were captured in the entire area of the Sundarbans. The same source acknowledges that in 1983, the population of tigers was 264, albeit the difference in survey methodology which should be taken into consideration. Hence, it is understandable that except in the core areas of the Sundarbans Tiger Reserve, it is almost impossible to catch a glimpse of a tiger. Most of the travellers expressed dissatisfaction as they were not able to encounter the Royal Bengal tiger and bewailed that one needs to have good luck to have a glimpse of a tiger in the wild. Still, in every advertisement of this tourism destination, the image of tiger is placed at the forefront.

Moreover, the creation of the Sundarbans tourism imaginaries in most travel brochures suppresses and hides the underdeveloped conditions of human settlements in this

[2]The Sundarbans is widely acknowledged as 'man-eater's place' in popular fiction and literary genre, for example see Montgomery, Sy (1995). *Spell of the Tiger: The Man-Eaters of Sundarbans*. Houghton Mifflin Company, New York; Ghosh, Amitava. (2004). The *Hungry Tide*, HarperCollins. This fictional and romanticised notion of the Sundarbans has been perpetuated to tourists coming from other countries as well as to Indians who are not aware of the present scenario of the Indian Sundarbans

area, but instead, highlights the imaginaries of isolated islands with exotic animals, waterscape[3] or just portrays intriguing pictures of the individual fisherman or a cluster of women carrying fuel-wood. Many of the advertising agencies emphasise and highlight that the Sundarbans is home to 334 species of plants, 49 species of mammals, 320 species of birds, 53 species of reptiles and 400 species of fish while the elusive keystone species of the Sundarbans Mangrove Forest, the Bengal Tiger ranges in 440 tigers only, according to the Forest Department census.

Ironically, most tour organisers avoid revealing in their brochures or advertisements the fact that the Sundarbans is also densely populated by another species, that is, humans, along with all the other types of media previously mentioned. For that matter, it is one of the most densely populated areas with an average density of 925 persons/km², based on 2001 census (WWF, 2013), whereas, the average density for the entire state of West Bengal is 903 persons/km² which is the highest[4] in India (Census, 2001). To put this estimate into perspective, the population density for the whole of India is just 325 persons/

km². Although population density directly influences the rest of the claims made by these tour organisers such as the existence of isolated islands or pristine nature, this region is exclusively marketed in advertisements, either as the home of Royal Bengal tigers or as a haven for bird watchers[5]. At most, references to the islanders are limited to some tribal cultural performance by Munda or the unique way of escaping tigers in the forest by honey gatherers[6]. Tour organisers strategically bypass these facts by organising their trips through motorised boats. This then creates a distance between the tourists, and the local life and the actual reality faced by local communities. Furthermore, to sustain the constructed images of the sea, tigers, crocodiles, deer, birds, and mangrove forests, these organised tours cleverly ignore islands which are mainly inhabited by humans.

As discussed in the preceding section, the current trend of ecotourism emphasises on building a relationship between local inhabitants and tourists as well as trying to provide alternative livelihood options for the local people. However, in the case of the Sundarbans, the situation is quite different. The primary means of tourism here is through motorised boats, and most of the time these boats come from outside

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[3]Please see various websites on Sundarbans' tourism such as: *Denzong Leisure* (http://www.denzongleisure.com/packages/jungle_safari_sundarban_1); *Tour De Sundarbans* (http://www.tourdesundarbans.com/gallery.php?page=1)
[4]Though in overall ranking West Bengal is ranked 6th, all of them before West Bengal are union territories.

[5]See http://www.travelchhutichhuti.com/sundarban-tour-packages.html
[6]See *Denzong Leisure* (http://www.denzongleisure.com/packages/jungle_safari_sundarban_1) and *Tour De Sundarbans* (http://www.tourdesundarbans.com /gallery.php?page=1)

the Sundarbans, mainly from Kolkata or Diamond Harbour, or Namkhana, which are the nearest major towns or cities. As most travel agencies are located outside these islands, the organised trips also procure resources from outside. In the case of individual tourists, there is an income opportunity for local boatmen who transport tourists to the surrounding areas. This study puts forward two main constraints faced by tourism in the Sundarbans region that make it tough to rely heavily on outside resources. Firstly, its uncertain climate condition makes it difficult to provide assurance of hosting tourists each and every year, so islanders cannot entirely be dependent on tourism. Secondly, the unavailability of electricity stands as a major obstacle in making all the necessary local arrangements. In this regard, it is reasonable to expect that tourists would not get much exposure to the lifestyle of the locals. Through the understanding obtained by the researcher from this study, it can be seen that negating the reality of the human settlements and present infrastructural barriers of the Sundarbans are two main reasons why the tourism industry constructs a different world based on landscape and biodiversity, which is far from the existing true essence of the Sundarbans.

On a more critical note, the researcher finds that the inhabitants of the Sundarbans are not treated as an integral part of tourism as they do not belong to any recognised ethnic group and are not labelled as 'tribal', except for the Mundas. Hence, their lifestyle and culture also do not evoke any kind of romanticism. As a matter of fact, these areas are predominantly occupied by migrants from Bangladesh, Jharkhand or other districts of West Bengal. Hence, owing to this reason, they do not obtain any indigenous status, and somehow are deliberately ignored by the tourism industry.

By assessing these facts, it can be claimed that mass production of images creates a particular notion about various tourist places. At times, these public images become so widely circulated that they completely invade the private or personalised images of a place, and subsequently, public notions percolate into personal expectations.

CONCLUSION

The objective of this study is to explore the role of imagination and images in the discourse of nature tourism. To achieve this, throughout the entire study, the key role that imagination holds in the vast and growing tourism industry was fully explored. Various manifestations of imagination were given due importance and consideration. An attempt was also made to illustrate the means through which the tourism industry employs images as an essential tool for their business and portrays nature in a distinct manner to evoke imagination in minds of tourists. However, the questions arising here are: why has this discussion been limited to only the context of 'nature tourism' and also why is the concept of ecotourism mostly expanding in the case of 'nature tourism'? It is important to address these two questions at this stage. Pragmatically, the definition of 'nature' has so much of variation that it is quite difficult to fix a particular definition

to it. Although theoretically, nature is everywhere, still the discourse of 'nature tourism' places an emphasis on a special kind of conception of 'nature' and this gets altered depending on the situation. On the contrary, for any other type of tourism, such as religious or historical, tourist hotspots already possess certain intrinsic values. However, in the case of nature tourism, this value has to be ascribed by the tourism industry. There is little doubt that the concept of ecotourism has uncovered a completely new range of possibilities where the tourism industry can easily transform an ordinary place to a popular tourist spot. In this process of creation, the role of images, as extensively described in this study, is absolutely central. Without the portrayal of these images, it is almost impossible to draw attention of tourists to a rather unexplored tourist place.

Moreover, with ecotourism being a watershed event in the tourism industry, it attempts to go beyond the socio-environmental externalities commonly associated with tourism. Ecotourism is seen as capable of providing a win-win situation for all stakeholders - tourists, host communities, the tourism industry, and the environment. This study thoroughly analysed how a dialectical process between tourists and the tourism industry actually helps to solidify a fresh new concept like 'ecotourism'. On one end of this dialectical process, tourists are eager to take a break from their mundane life and want to experience exotic places

with the incentive of aesthetic as well as philanthropic satisfaction. On the other, the tourism industry promptly uses various constructed images as an essential tool for their business and portrays nature in a very unique manner to facilitate imagination in the minds of tourists. However, in this dialectical process, the significant role of imagination on the part of tourists is viewed as the primary initiator of this process. In this relationship, the question arises as to whether it is ethical to commoditise nature for the sake of economic and industrial gain. This question becomes more complex, when to accomplish this 'commoditisation', the reality on the ground gets obscured with a rosy and distorted image perceived of a tourist destination. Nevertheless, it would be absolutely hypocritical to put the entire blame for creating this imagination on the tourism industry. It is posited that the driver of this is primarily from the fundamental human nature. Here, it is argued that the main factor behind the imaginative minds of tourists stems from the proverb, 'the grass is always greener on the other side'. This proverb also rightfully captures the basic nature of human beings. To provide this greenery, the tourism industry continuously does a 'green-wash' especially with the support of 'green' images. Hence, tourism as an activity, opens up a unique avenue to study various subtle demands and conceptions of human minds and how they can act together to perceive reality out in an entirely different manner. This also feeds into the age-old debate that reality is what

one wants to perceive through the eye of the mind rather than what is actually present before the observer.

Lastly, on a critical note, the definition of ecotourism explicitly highlights its two fundamental attributes. Firstly, it provides the platform to interact and commune with the host community to offer a 'true' experience of the place. Secondly, it tries to conserve the host environment which also encompasses the local community. This study has explored the manner in which images and the entire ecotourism packages aid the tourism industry to portray a glossy-rosy image of nature which fits in with the imagination of tourists, and in the process, hides the actual reality on the ground. Therefore, this research emphasises that it is fundamentally impossible to capture the true essence of a place as generally, reality and imagination contradict each other. To reflect on this through an example, if the images of tourist spots show unmanaged garbage heaps or concretised local areas, then it will obviously negatively affect the imagination of tourists and subsequently, destroy tourism in that area as tourists always search for 'greener grasses' compared to their mundane reality. This kind of reality is always supressed and hidden by the tourism industry as throughout this study, it has been clearly established that without images and imaginations, the entire tourism industry cannot sustain itself. Hence, it can be concluded that the claims made by ecotourism are not only implausible, but also in a way, are self-contradictory in their very formulation.

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Gender Differences in Behaviourally Fractionated Omitted Stimulus Reaction Time Task using Visual, Auditory and Somatosensory Stimuli

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ABSTRACT

Although most studies in the field agree on gender differences regarding reaction times, disagreements also remain about this trend. This is a replication study with a large sample size designed to verify the consistency of a prior result that showed an absence of gender differences in omitted stimulus reaction time (OSRT) task using behavioural criteria to fractionate reaction time into Premotor (cognitive) and Motor components. A total of 112 healthy participants (56 males) responded to the termination of a train of visual, auditory, or somatosensory stimuli. The results did not support the previous finding and showed that men have faster Premotor and Motor responses on each of the three sensory modalities. Faster responses were obtained with auditory rather than visual or somatosensory stimuli. These results are relevant to developing a better understanding of the different time processing capabilities of the male and female brains.

Keywords: Cognitive, movement, multisensory, omitted stimulus, reaction time

INTRODUCTION

Time estimation is considered an important control mechanism in the behaviour of organisms and is an indirect index of the processing capabilities of the brain. It helps in determining sensory-motor associations and the alertness of a person because how quickly a person responds to a stimulus

depends on his/her reaction time (RT). A number of papers have found significant differences between men and women in distinct time estimation tasks (Bell, 1972; Delay & Richardson, 1981; Eisler & Eisler, 1992; Hancock, Vercruyssen, & Rodenberg, 1992; Rammsayer & Lustnauer, 1989). Others report no gender differences (Ayala, De Ste Croix, Sainz de Baranda, & Santonja, 2014; Hong et al., 2014; Marmaras, Vassilakis, & Dounias, 1995; Roeckelein, 1972; Teleb & Al Awamleh, 2012). One way to assess the time estimation is through the measurement of RT to sensory stimuli, which is considered to reflect the sum of the duration of a series of mental and motor processes, requiring stimulus perception, cognitive selection, and response execution (Welford, 1952). Much research has been published about RT, and it is clear that RT is influenced by several factors, such as age, practice, and drugs (Kosinski, 2013). Although gender differences in RT have been demonstrated in several studies (Adam et al., 1999; Dane & Erzurumluoglu, 2003; Der & Deary, 2006; Landauer, Amstrong, & Digwood, 1980; Riccio, Reynolds, & Lowe, 2001; Sherman, 1978), it is still a controversial issue (Teleb & Al Awamleh, 2012). Some authors have argued that males have faster RT than females (Barral & Debu, 2004; Dane & Erzurumluoglu, 2003; Der & Deary, 2006), even in animals (Bayless, Darling, Stout, & Daniel, 2012). Others suggest that the speed of response is a function of the type of stimuli presented (Burnstain, Bank, & Jarvick, 1980) and men have an advantage over women when

spatial or visual stimulus is presented, but women are faster when they must react to an auditory signal (Lahtela, Niemi, & Kuusela, 1985). Nevertheless, Spierer, Petersen, Duffy, Corcoran and Rawls-Martin (2010) found faster responses in men than women presented with auditory signals. Still other studies have found no gender differences in RT tasks (Teleb & Al Awamleh, 2012).

A different type of RT occurs when a task presents a recurring stimulus that requires an immediate response to the omission of the stimulus. This is known as an omitted stimulus reaction time (OSRT) task. Although the OSRT paradigm is somewhat uncommon, it bears a resemblance to some real-life situations such as those requiring reaction to the cessation of a flashing stoplight, or to a missing beep on a heart monitor. It is considered additional cognitive processes, such as sustained attention and mental chronometry to determine when the next stimulus is expected and discrimination of the cessation of a temporal stimulus sequence, that are not involved in choice RT tasks (Hernández, Huchin-Ramirez, & Vogel-Sprott, 2005; Bullock, Karamürsel, Achimowicz, McClune, & Başar-Eroglu, 1994). Most importantly, the trigger for the behavioural response is an internal cognitive process and not an external event. This task is also of considerable interest because the omitted stimulus potential (OSP), a special form of event-related potentials (ERPs), accompanies the cessation of a train of stimuli that lasts a few seconds (Bullock et al., 1994). Previous research has shown that the OSP and the OSRT share some qualities

(Hernández & Vogel-Sprott, 2008, 2009, 2010).

Research has shown that the total RT can be partitioned into Premotor (cognitive) and Motor (movement) components to determine the source of the timing delay related to a process (Botwinick & Thompson, 1966a). This procedure of fractionating RT to the presentation of a stimulus has been applied to simple and choice reaction time tasks (Botwinick & Thompson, 1966a; Ito, 1997; Raynor, 1998; Simmons, Wass, Thomas, & Riley, 2002) and also to the OSRT task, using behavioural fractionation (Hernández, et al., 2005).

Gender differences in the Premotor and Motor components of RT are also controversial. Botwinick and Thompson (1966b) found that these two components do not differ among men and women. Conversely, Ervilha, Fernandes Da Silva, Correa Araujo, Mochizuki and Hamill (2014) found faster Premotor fraction RT for athletic women, but faster Motor RT for athletic males, with no gender differences in the total RT. Hong et al. (2014) reported Motor fraction to be longer in elderly women but not in elderly men, with no gender differences in the Premotor component.

The only study of OSRT comparing the two fractionated measures in men and women was published by Hernández et al. (2005), in which a paradigm of lateralised stimuli and responses was used. In that report, analysis of variance (ANOVA) showed that men were faster than women in the Premotor time, but this difference did not reach any significance. Although this was a statistically non-significant result, the observed male advantage motivated the researchers to conduct a further study to ascertain possible gender differences in the OSRT task in order to ratify or rectify such results. In this study, the number of males and females was more than twice those previously reported, and used only their dominant hand in responses with no lateralised stimuli. Gender differences in the OSRT are important because they show that the brain works differently in men and women to handle internal information such as the timing and expectation. Gender differences in the OSRT are particularly important to drug studies. Some cognitive information about the effects of acute doses of alcohol on the Premotor and Motor fractions of the OSRT in men has already been published, but the equivalent information in women is missing (Hernández, Vogel-Sprott, Huchín-Ramirez, & Aké-Estrada, 2006).

This study is an extension of a previous work on behaviourally fractionated RT to an omitted stimulus with the aim to verify the lack of gender differences previously reported. The main objective is to determine if gender influence exists in college students´ responses to visual, auditory, and somatosensory stimuli in omitted stimulus reaction time (OSRT) task using behavioural criteria to fractionate reaction time into Premotor (cognitive) and Motor components.

METHODS

Participants

A total of 112 healthy college students volunteered for the study, 56 of whom were females with regular menstrual cycles. Although the cyclic hormones have no influence on the OSRT (Hernández, García-Martínez, Monteón, & Alfonso-Arguello, 2013), they were asked to arrive at the lab when they were in days 1-5 of the menstrual cycle. Right-handedness was assessed and confirmed using the Annet (1970), and Shimizu and Endo (1983) tests. All the participants were aged between 17 and 26 years (mean of 20.4 ± 2.1 years), and none reported having any history of nervous system diseases or motor disability. Subjects with well-defined premenstrual syndrome, any gynaecological problems, irregular cycles, or any drug consumption (such as hormonal treatment and psychotropic drugs) were excluded from the study. The subjects were instructed to abstain from consumption of any stimulant drink or alcohol for at least 24 hours before their arrival at the lab. All the participants were informed of the procedures before completing an informed consent form and reported their age and health history. The protocol was reviewed and approved by the Ethics Committee of the university.

Apparatus and Materials

This task was similar to that used in prior research to test the Premotor and Motor RT to visual, auditory, and somatosensory stimuli (Hernández et al., 2005). A pattern generator (Grass mod. 10VPG) presented the visual stimuli on a monitor. The monitor presented a black and white checkerboard with 16 squares (5×8 cm each). The centre of the monitor was placed 30 cm in front of the participant's eyes. The generator, hidden from the participant's view was triggered and stopped by an electrical stimulator (Grass S48), which released a pulse every two seconds (0.5 Hz) that reversed the black and white squares. The electrical stimulator also triggered the auditory stimuli, which were presented as 10 ms ´clicks´ at 2-second intervals to both ears through headphones. The auditory thresholds were determined by reducing the output voltage to a minimum and gradually increasing the voltage until the person detected the clicks. The stimulus pulse was then set at 20 times the threshold so that they would be clearly heard. The somatosensory stimuli were also administered at 2-second intervals by two disc electrodes (Grass F-E5SH) placed on the medial finger of the right hand. These electrodes were connected to the electrical stimulator (Grass S48) through a stimulus isolation unit (Grass SIU5). Somatosensory thresholds were also determined and set at 1.2-times the threshold, which was well below the pain threshold.

The responses to the termination of a train of stimuli in each sensory modality were measured. At the outset of the trial, a response key (Key 1) was depressed

with the thumb until the train of stimuli ceased. At this time, Key 1 was released and Key 2, placed 10 cm in front of Key 1, was depressed. Key 2 was large enough to avoid sacrificing speed for accuracy. Both response keys were connected to AC amplifiers (Grass P511). Each stimulus and the release and the press of the response keys generated clear changes in the voltage relative to the baseline that were collected online using a computer fitted with an analogue-to-digital converter (Biopac, Inc.,) and analysed using AcqKnowledge software (Biopac Inc.). The computer recorded the time (in milliseconds) between the changes in voltage associated with each stimulus in the train of stimuli and the Key 1 and 2 responses. Premotor time (PM) was measured as the time between the first missing stimulus and the release of Key 1. Motor time (M) was measured between the release of Key 1 and the pressing of Key 2. A participant's PM and M were recorded for each trial, and separately for each sensory stimulus (visual, auditory or somatosensory) in the omitted stimulus task.

Experimental Procedures

The participant was seated in front of a table where the two response keys were in easy reach. The task instructions were identical for each sensory modality. Participants were told to hold down Key 1 at the beginning of each trial and immediately release the Key 1 and press Key 2 when the train of stimuli ceased. Each trial was preceded by a verbal 'ready' signal. The number of stimuli in a train on a given trial varied between five and 10 in a predetermined pseudorandom fashion and was ignored by the participants. A test included 30 trials, with 10 consecutive trials administered with each type of stimulus. Trials with a given stimulus were completed in approximately 10 minutes and were immediately followed by trials with a different sensory stimulus. The order in which the sensory stimuli (visual, auditory or somatosensory) were presented during the test was counterbalanced in the groups. A test with all three sensory stimuli was completed in approximately 30 minutes. The administration of additional trials would extend the duration of a test and possibly result in restlessness and fatigue effects.

Data Analyses

The scores of any trial in which the response occurred before or coincided with the first missing stimulus in a train were discarded. In total, 0.8% of the trial scores were rejected. On each test, a participant's PM and M times were averaged using the trials with each sensory stimulus. SPSS software (SPSS, v.18) was used to analyse the OSRT measures using a 2 (gender, that is, men and women) × 3 (sensory, that is, visual, auditory, and somatosensory) ANOVA. A partial Eta-square value (η_p^2) provided the ANOVA effect size. To correct the chance occurrence of a result with p<.05

for repeated tests, a Bonferroni correction was used to adjust the alpha level. The assumptions of normality and equal variance were tested by the Kolmogorov Smirnov test and the Levene test, respectively.

RESULTS

The average age of the men was 20.1 ± 1.9 years and was 20.8 ± 2.2 for women, with no significant difference (p>.66). A 2 (Gender) × 3 (Sense) repeated measures analysis of variance (ANOVA) for the Premotor OSRT yielded main effects on Gender (F(1,110) = 10.2, p<.002; η_p^2 = .085) and Sense (F(2,220) = 38.5, p<.0001; η_p^2 = .259), but not in their interaction (F(2,220) = .027; p>.584; η_p^2 = .005). In the same way, the 2 (Gender) x 3 (Sense) ANOVA for the Motor OSRT yielded main effects on Gender

(F(1,110) = 11.3, p<.001; η_p^2 = .093) and Sense (F(2,220) = 9.87, p<.0001; η_p^2 = .082), but not in their interaction (F(2,220) = 1.376; p>.255; η_p^2 = .012). Comparisons with Bonferroni test indicated that the auditory modality was faster than the visual and somatosensory modalities (p<.0001), and the visual modality was faster than the somatosensory modality (p<.002) in the Premotor component (Table 1). The Motor component did not have any main differences between the visual and auditory systems, but these were both faster than the somatosensory modality (p<.002) (Table 1). Separate paired t-tests for each stimulus modality verified that the men's responses were faster than the women's responses in both the Premotor (p<.011) and Motor (p<.021) fractions of the OSRT (Figure 1).

Table 1

Comparison of the Premotor and Motor times in the sensory modalities for the sample

Times	Sensory Modality		
	Auditory	Visual	Somatosensory
Premotor (ms)	665.1 ± 237.7*	809.4 ± 304.4	915.1 ± 360.6
Motor (ms)	506.8 ± 166.8	501.9 ± 158.1	553.6 ± 181.1**

*p<.0001 compared to visual and somatosensory
**p<.002 compared to auditory and visual
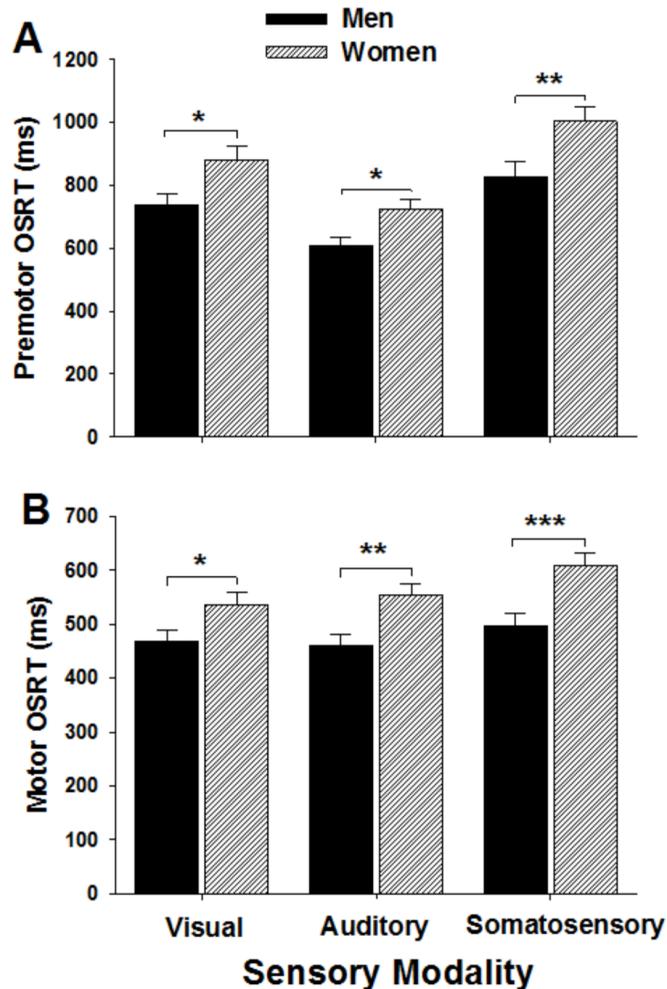
Figure 1. The Premotor (A) and Motor (B) Fractions of the Omitted Stimulus Reaction Time (OSRT) Task according to sensory modality separated by gender *p<.03; **p<0.01; ***p<0.001

DISCUSSION

The main findings of this study indicate that men are faster than women in both the Premotor and Motor components of the OSRT and in the three sensory modalities, suggesting a male advantage in neural mechanisms involved in timing. This advantage could be more relevant to him for

hunting, than to her, dedicated to planting and harvesting in the ancient times.

The results are not in agreement with the only other study that has compared the OSRT fractions between men and women (Hernández et al., 2005). Nevertheless, it should be highlighted that in the previous study, although not significant, women had

consistently longer Premotor and Motor OSRT than men using lateralised stimuli. This finding motivated the researchers to carry out this study with the main goal of verifying whether any gender differences exist in this task. The present work has several methodological improvements relative to the previous study: the number of participants was more than double, the stimuli were not lateralised but were central, and the tasks were performed only with their dominant hand.

The faster responses for men than women are consistent with the findings in simple and choice RT tasks when fine or gross movements are performed (Sherman, 1978; Adam et al., 1999; Dane & Erzurumluoglu, 2003; Barral & Debu, 2004; Der & Deary, 2006; Spierer et al., 2010; Karia, Ghuntla, & Mehta, 2012). But as it was mentioned before, others report no gender differences (Marmaras, Vassilakis & Dounias, 1995; Roeckelein, 1972; Teleb & Al Awamleh, 2012; Ayala et al., 2014; Hong et al., 2014). The gender differences in the Premotor fraction could be explained as changes in brain function between men and women, who employ different information and processing strategies to measure time (Adam et al., 1999; Spierer et al., 2010). An understanding of gender differences is of value in many ways. It is interesting to test the acute effects of alcohol in the Premotor and Motor fractions of the OSRT in females, as they were reported in males (Hernández et al., 2006). However, before female alcohol experiments are developed, baseline (free-drug) values must be defined

to provide guidance in deciding whether an observed change due to alcohol is within the boundaries of assessment error or is a true change. In other real life situations, differential reactions to an omitted stimulus could help music band directors select better music players under scientific bases or coaches design strategies to optimise athletes´ training.

The Premotor times of the OSRT were slower than those found in the traditionally simple or choice RT tasks. This is consistent with the fact that response time increases with higher cognitive loads (Kosinski, 2013). In the OSRT task, a person must not react when a sudden stimulus appears but only when the next stimulus fails to arrive. Thus, the triggers of the behavioural response are internal cognitive processes related to attention, mental chronometry, and decision making. All these triggers lead to higher cognitive load of the OSRT task. Moreover, difficulty determining that the expected stimulus did not occur is likely to increase as the stimulus takes place at a slow rate (2 seconds).

This paper is in agreement with the study of Hernández et al. (2005), which used the OSRT task, and also with many other studies (Brebner & Welford, 1980; Kosinski, 2013) which used conventional simple and choice RT tasks in showing faster responses when auditory stimuli were applied. Sanders (1998) reported this pattern persists, regardless of whether the subject is asked to provide a simple response or a complex response. Unfortunately, comparison with other OSRT results is not

possible as no further studies have examined the Premotor and Motor fractions of OSRT with multisensory stimuli.

The male advantage in the Motor fraction demonstrated in this paper is consistent with other results (Blackburn, Riemann, Pauda, & Guskiewics, 2004). Gender comparison Blackburn, et al., 2004; Granata, Wilson, & Padua, 2002), and the idea that motor time is related to the rate of muscle force production and indirectly measures muscle-tendon unit stiffness (Blackburn, Bell, Norcross, Hudson, & Engstrom, 2009) is similarly consistent with the literature. Men have larger motor units due to their larger muscles, which generate a higher force and movement velocity. Male athletes´ and trained individuals' faster responses support this assumption (Arito & Oguri, 1990; Ervilha et al., 2014; Hascelik, Basgoze, Turker, Narman, & Ozker, 1989; Spierer et al., 2010). The results found slower responses to somatosensory stimuli but no differences between the visual and auditory stimuli. The longer duration of the Motor fraction based on behavioural criteria may be attributed to its inclusion of the time to complete a precise key press response. This measure of Motor time assesses the speed and adequacy of the motor response itself, and does not distinguish the onset of a muscle action potential.

One of the potential limitations of the current study is the age distribution of the participants, which was very narrow. Thus, the generalisability of the findings to a broader population must be explored. It is also important to reproduce this experiment using the left hand and the EMG to separate the Premotor and Motor fractions. Additionally, further studies comparing gender changing stimulus parameters, health conditions, previous training, and drug use, will provide new knowledge to the omitted stimulus task.

CONCLUSIONS

In conclusion, the main finding of this replication study was that gender differences do exist in response to auditory, visual, and somatosensory stimuli in the omitted stimulus reaction time task. The men were quicker to respond to both Premotor and Motor fractions than women in the three sensory modalities with the dominant hand. This suggests that the male and female brain employs different strategies to drive some internal process such as timing and expectation in order to trigger a behavioural reaction.

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Effect of Phase-based Instruction Using Geometer's Sketchpad on Geometric Thinking Regarding Angles

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ABSTRACT

Teaching and learning geometry is not merely about memorising geometrical properties but about grasping the conceptual understanding of geometry as well. Students, however, face challenges in the classroom trying to develop their geometrical thinking. The purpose of this study is to identify whether phase-based instruction using Geometer's Sketchpad helps primary school pupils develop their Van Hiele levels of geometric thinking regarding angles significantly. Eight different pre-sketched activities were designed based on Van Hiele's five phases of learning to guide the students in learning about geometrical angles. Pre and post Van Hiele Achievement Tests were given to both the experimental and control groups before and after the intervention. Inferential statistics such as Mann-Whitney test and Wilcoxon signed-rank test were used in analysing the quantitative data. Results of the pretest indicated no significant difference between both groups of students in their Van Hiele levels of geometric thinking. After the intervention, the findings showed that students in both the experimental and control groups have improved significantly in terms of their Van Hiele levels of geometric thinking. Additionally, results of the Mann-Whitney test revealed that the difference in Van Hiele levels of geometric thinking between students in both groups was significant during posttest. In short, phase-based instruction using Geometer's Sketchpad has helped the students to develop their Van Hiele levels of geometric thinking and provided an insight for the educators to further utilise the software.

INTRODUCTION

Battista (2007) stated that "Geometry is a complex interconnected network of concepts, ways of reasoning, and representation systems that is used to conceptualize and analyze physical and imagined special environments" (p. 843). Teachers should stimulate the students' geometric thinking and develop their reasoning skills about geometry that can enable them to carefully analyse spatial problems and situations (Battista, 2002) by preparing meaningful tasks to allow exploration of geometric concepts. Erdogan, Akkaya, and Celebi Akkaya (2009) stress that geometrical thinking is not only limited to mathematics but plays an important role in students' cognitive development in all courses. Therefore, it is important for pupils to develop their own geometrical thinking in the elementary level so that they can progress further at secondary level.

Crowley (1987) emphasise that appropriate instructional guidance is the key to helping students master geometrical thinking based on Van Hiele theory. Abdullah and Zakaria (2013) suggest using various approaches in imparting geometrical knowledge, specifically using Geometer's Sketchpad software based on Van Hiele's phases of learning geometry. Some researchers have conducted studies to develop students' geometrical achievement and geometric thinking using technology tools, specifically the Geometer's Sketchpad. They found that students were motivated to learn geometric concepts through Geometer's Sketchpad, resulting in significant improvement in geometrical achievement as well as Van Hiele levels of geometric thinking (Abdullah & Zakaria, 2013; Chew & Idris, 2012; Chew & Lim, 2013; Dimakos & Zaranis, 2010; Idris, 2009).

Prescott, Mitchelmore, and White (2002) conducted an exploratory research on Year Three pupils to study their difficulties in abstracting angle concepts from physical activities with concrete materials. In short, Prescott et al. (2002) suggested that the concept of angle seems difficult for Year Three pupils. The pupils faced some difficulties in learning angles, which could be classified into four categories: matching, measuring, drawing, and describing. Shoval (2011) also found that the achievement of second and third grade pupils in angles improved after cooperative learning using mindful movement. It seems that the difficulties faced by primary school pupils in learning angles could be overcome through instructional activities that involve frequent interaction.

Research Purpose

This study aims at determining whether phase-based instruction using Geometer's Sketchpad helps primary school pupils develop their Van Hiele levels of geometric thinking regarding angles. The study intends to answer the following research questions:

1. Is there any significant difference in students' Van Hiele levels of geometric thinking between the experimental group and the control group before

the phase-based instruction using Geometer's Sketchpad?

2. Is there any significant difference in students' Van Hiele levels of geometric thinking regarding angles before and after the phase-based instruction using Geometer's Sketchpad?

3. Is there any significant difference in students' Van Hiele levels of geometric thinking regarding angles before and after the instruction using traditional approach?

4. Is there any significant difference in students' Van Hiele levels of geometric thinking between the experimental group and the control group after the phase-based instruction using Geometer's Sketchpad?

Significance of the Study

This study contributes to mathematics teachers by providing insights into teaching primary mathematics using technology tools to enhance pupils' Van Hiele level of geometric thinking. The mathematics teacher can try to teach geometry in a sequential way using phase-based instruction to enhance students' Van Hiele levels of geometric thinking as well as guide students' learning through exploration to achieve specific academic goals.

Theoretical Framework

Van Hiele Theory of Geometric Thinking. Van Hiele theory is "an idea that systemizes the experience of mathematical thinking processes" (Lee & Kim, 2012, p. 4088). Van

Hiele theory explains the problems which students face and when applied it helps them progress to higher levels of geometrical thinking (Usiskin, 1982). Erdogan et al. (2009) suggest the use of Van Hiele levels in geometrical instruction as it enhances the role of teachers in managing instructional activities.

Van Hiele theory proposes five distinct levels for categorising students' geometric thinking, namely Level 1 (visualisation/recognition), Level 2 (analysis) Level 3 (informal deduction), Level 4 (formal deduction) and Level 5 (rigor). Clements and Battista (1992) suggest an indicator of Level 0 (precognition) for the students who have not mastered Van Hiele Level 1 of geometric thinking. This study involves two of the five levels of geometric thinking, which are covered in Year Four Mathematics curriculum:

(a) *Level 1: Visual/Recognition.* The students in Level 1 should be able to recognise, name and sort shapes based on the physical appearance of the shapes but cannot identify a figure based on its properties (Crowley, 1987; Erdogan et al., 2009; Van Hiele, 1986).

(b) *Level 2: Analysis.* At this level, students should be able to differentiate the geometrical figure based on their characteristics through observations and experiments. In addition, students should use the properties learnt to solve problems. (Crowley, 1987; Erdogan et al., 2009; Lee & Kim, 2012; Van Hiele, 1986).

Van Hiele Phase-Based Instruction. Van Hiele theory also proposes five sequential phases of learning to guide students to develop their geometric thinking. The five phases of learning include:

(a) *Phase 1: Information / Inquiry.* Teachers and students engage in conversation and activities such as questioning, observations and vocabulary. From the activities, teachers may know about students' prior knowledge regarding the topic and the direction of further studies as well (Crowley, 1987).

(b) *Phase 2: Guided / Directed Orientation.* Students explore the geometrical concepts using the materials carefully sequenced by the teacher (Crowley, 1987; Van Hiele, 1986) with minimal guidance from the teacher (Clements & Battista, 1992).

(c) *Phase 3: Explicitation.* Students explain their views about geometrical concepts learnt by combining new knowledge with prior knowledge. The activities in this phase should be done with minimal teacher guidance, specifically only on the use of accurate and appropriate language (Crowley, 1987).

(d) *Phase 4: Free Orientation.* Students are challenged with more complex tasks, such as those involving more complicated solution steps and open-ended tasks (Crowley, 1987). "By orienting themselves in the field of investigation, many relations between the objects of study become explicit to the students" (Hoffer, 1983, p. 208).

(e) *Phase 5: Integration.* Students summarise what they have learnt and generate their own understanding about geometrical concepts.

Review of Related Literature

Dimakos and Zaranis (2010) conducted a quasi-experimental study on how integrating Geometer's Sketchpad into high school geometry teaching affected students' achievement and proof writing ability. A total of 79 grade seven students participated in this study (40 students were assigned to the experimental and 39 to the control group). A Van Hiele based pretest was given in the first week. Subsequently, students in both groups were taught about triangles and quadrilaterals for six weeks. One or two hours of computer activities using Geometer's Sketchpad per week were carried out for experimental group students. Posttest was given to evaluate students' geometry achievement after the instruction. The t-tests results indicated that students in both groups improved significantly after the instruction. The difference in geometry achievement between the two groups was not significant during the pretest but showed marked difference during the posttest, whereby students in the experimental group scored significantly better than the students in the control group during the posttest.

Poh and Leong (2014) also conducted a quasi-experimental study to investigate the usage of Geometer's Sketchpad in the teaching and learning of angles for Year Three pupils in a rural school in Pahang. A total of 31 students from an intact

mixed-ability classroom participated in the study (16 of them were assigned to the experimental group and the remaining 15 to the control). Three sets of pre and posttests were developed based on the content of right angles, acute angles and obtuse angles. The posttests were administered immediately after the instruction on the specific types of angles. Results of the paired samples *t*-tests showed that the Van Hiele levels of geometric thinking among students in both the experimental group and the control group improved significantly after the intervention. Although the result of the independent samples *t*-tests for three posttests indicated that the Van Hiele levels of geometric thinking did not differ significantly, it is interesting to find that the significance value of the difference reduced over longer duration.

In the following year, Poh and Leong (2015) improvised the instructional tasks and carried out another quasi-experimental study involving 30 Year Three students in a rural school in Pahang to examine whether Geometer's Sketchpad could be used to enhance the Van Hiele level of geometric understanding regarding angles among primary school students. A Van Hiele Achievement Test, consisting of 10 multiple choice items was constructed to assess students' Van Hiele levels of geometric understanding regarding angles. The students in the experimental group underwent six sessions of phase-based instruction on geometrical angles using Geometer's Sketchpad whereas the control

group students learnt geometrical angles using the traditional approach for six sessions. After the intervention, the students in the control group obtained higher Van Hiele levels of geometric understanding regarding angles, on average, compared to the students in the experimental group during post Van Hiele Achievement Test, but the difference was not significant. The researchers concluded that the students might be unfamiliar with the software and instructional method because of time constraints. Hence, the instructional activities have been modified once again for the current study to allow sufficient time for students to explore the geometrical concepts on their own.

In a related study, Siew and Chong (2014) conducted a single group pre-test and post-test experimental design study to foster pupils' creativity in terms of Torrance's Figural Test of creative thinking through Van Hiele's five phase-based tangram activities. A total of 144 grade three pupils taken from five mixed-ability classrooms participated in their study. Three hours of phase-based intervention was given to the pupils regarding two-dimensional shapes and symmetry.

In another study, Abdul Halim and Effandi (2013) disagreed with the traditional teaching approach, which encourage pupils to memorise facts and algorithms without understanding the underlying concepts. They used quasi-experimental research design and developed activities for form two students based on the topic of

transformations, which aimed to identify the effectiveness of Van Hiele phases of geometry learning using the Geometer's Sketchpad on the geometric thinking among form two students. The results implied that instruction using Van Hiele phases of learning geometry through Geometer's Sketchpad is more effective compared to the conventional way of learning for improving students' geometric thinking. Based on their results, the researchers suggested that teachers should introduce new approaches in their geometry teaching such as utilising Geometer's Sketchpad software since its benefits had been affirmed by previous studies.

Similarly, Chew and Lim (2013) also conducted an exploratory case study to enhance primary school pupils' geometric thinking through phase-based instruction using Geometer's Sketchpad based on the Van Hiele theory of geometric thinking about equilateral triangle, square, regular pentagon, and regular hexagon. Their sample involved a class of 26 mixed-ability Year Four pupils from a primary school in Selangor. Their results indicated that 84.6% of the pupils' improved their Van Hiele levels of geometric thinking from either Level 0 to Level 2 or from Level 1 to Level 2. At the same time, 15.4% of the pupils improved their Van Hiele levels of geometric thinking from Level 0 to Level 1. There was a significant difference in the pupils' Van Hiele levels of geometric thinking for all the regular polygons after the phase-based instruction using Geometer's Sketchpad.

Chew and Idris (2012) in their case study also explored whether pupils' geometric thinking and achievement in solid geometry regarding cubes and cuboids could be enhanced through phase-based instruction using manipulatives and the Geometer's Sketchpad based on Van Hiele theory. The results of the post-interview suggested that phase-based instruction using manipulatives and Geometer's Sketchpad had enhanced achievement in solid geometry.

Hence, based on previous studies, Geometer's Sketchpad could enhance secondary students' geometric thinking but research using Geometer's Sketchpad as an instructional tool for primary school pupils is insufficient (Chew & Lim, 2013). Moreover, the mathematical content of geometrical angle was first introduced in the current primary mathematics syllabus. So far, no research has been done on teaching geometrical angles to Malaysian primary school pupils, specifically by using phase-based instruction aided by Geometer's Sketchpad. The current study adds to the existing body of research.

METHOD

Research Design

A quasi-experimental study of non-equivalent pretest-posttest design was conducted in one of the primary schools in Pahang, Malaysia. By using non-equivalent pretest-posttest design, the researcher can determine the improvement of pupils in terms of Van Hiele levels of geometric

thinking within the intervention period. The research design is shown as follows:

Experimental group	O1	X1	O2
Control Group	O1	X2	O2

O1 represents the pre Van Hiele Achievement Test

O2 represents the post Van Hiele Achievement Test

X1 represents the phase-based instruction of geometrical angles using Geometer's Sketchpad

X2 represents the instruction of geometrical angles using traditional approach.

Population and Sample

The population of this study includes all Year Four pupils in the national type primary Chinese schools in Malaysia. There are 74 national type primary Chinese schools in Pahang. The researcher employed purposive sampling of the Kuantan district to select one of the national type primary Chinese schools in Kuantan area because the school has sufficient personal computers for pupils' use. A total of 74 Year Four pupils (ten years old) participated in the study. The students were chosen from two intact mixed-ability classrooms. The researcher used coin-toss and assigned a class of 38 students as the experimental group and another class of 36 students as the control group.

Instrumentation

The Van Hiele Achievement Test was developed by the researcher to gather information about 74 Year Four pupils' Van Hiele levels of geometric thinking regarding geometrical angles. It consisted of twenty multiple choice items. Sample items for each level of geometric thinking regarding angles are illustrated in the following Figure 1.

Sample items

Van Hiele Level 1 of Geometric Thinking

Van Hiele Level 2 of Geometric Thinking

3. What type of angle is shown on the clock in Diagram 1?

Diagram 1

A   Acute angle
B   Right angle
C   Obtuse angle
D   Straight angle
E   Reflex angle

18. Based on Diagram 11, which statement is correct?
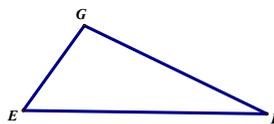
Diagram 11

A $\angle E$ is $30°$ and it is a right angle.
B $\angle E$ is $80°$ and it is an acute angle.
C $\angle F$ is $25°$ and it is an acute angle.
D $\angle G$ is $55°$ and it is an obtuse angle.
E $\angle G$ is $100°$ and it is a right angle.

Figure 1. Sample items for each level of geometric thinking regarding angles

The students in both the experimental and control groups were allowed to use Geometer's Sketchpad as another choice in answering the test besides paper and pencil so that they possessed the same condition and environment during the assessment. They were also provided with a protractor and virtual protractor to help them visualise the angles.

Mayberry's (1981) scoring criterion suggest that the students master one Van Hiele level of geometric thinking if they can answer at least three out of five items correctly. In this study, the researchers assumed that the students who answered seven out of 10 items correctly for item 1 to item 10 mastered the visualization level of geometric thinking (Level 1). If the students could answer seven out of 10 items correctly for item 11 to item 20, they were assumed to have mastered the analysis level of geometric thinking (Level 2). The students who were unable to answer seven out of 10 items correctly for item 1 to item 10 were graded as Level 0.

Reliability and Validity of Instrument

The content validity and translation validity of the instrument was confirmed by several experienced senior mathematics lecturers from the local universities in Malaysia. The Cronbach's alpha internal consistency score procedure for the Van Hiele Achievement Test instrument was performed using the Statistical Packages for the Social Sciences (SPSS) version 20.00 and generated Cronbach alpha value of .737. Nunnally (1978) suggested that an instrument with an alpha value above .7 would have sufficient internal consistency.

Procedures

The research procedure for this study is shown in Table 1. First of all, a Van Hiele Achievement Test was administered to the students in both the experimental group and control group to determine the students' initial Van Hiele level of geometric thinking. Next, an introductory lesson on the Geometer's Sketchpad was given. During the lesson, the researchers demonstrated how to use the basic features in the Geometer's Sketchpad such as rotating, drawing segments and drawing lines. The experimental group students were then paired up based on their initial Van Hiele levels of geometric thinking and left to explore the software on their own for 30 minutes. From the following week, the students in the experimental group underwent eight sessions of phase-based instruction on geometrical angles using Geometer's Sketchpad whereas the students in the control group were taught using the traditional method. At the end of the treatment, post Van Hiele Achievement Test was given to students in both groups to gather information about their post Van Hiele levels of geometric thinking.

Table 1
Research procedures

Groups	Research procedures
Experimental Group	1. Pre Van Hiele Achievement Test
	2. Introductory lesson of the Geometer's Sketchpad
	3. Phase-based instruction using Geometer's Sketchpad
	Lesson 1: Knowing about angles
	Lesson 2: Comparing angles
	Lesson 3: Identify the right angles through visualization
	Lesson 4: Identify the acute angles through visualization
	Lesson 5: Identify the obtuse angles through visualization
	Lesson 6: Identify the properties of the right angles
	Lesson 7: Identify the properties of the acute angles
	Lesson 8: Identify the properties of the obtuse angles
	4. Post Van Hiele Achievement Test
Control Group	1. Pre Van Hiele Achievement Test
	2. Instruction using traditional method
	Lesson 1: Knowing about angles
	Lesson 2: Comparing angles
	Lesson 3: Identify and measure the right angles
	Lesson 4: Identify and measure the acute angles
	Lesson 5: Identify and measure the obtuse angles
	Lesson 6: Identify and measure the right angles in polygons
	Lesson 7: Identify and measure the acute angles in polygons
	Lesson 8: Identify and measure the obtuse angles in polygons
	3. Post Van Hiele Achievement Test

Data Analysis

Mann-Whitney U test and Wilcoxon signed-rank test were used to analyse the students' pre and post Van Hiele levels of geometric thinking using SPSS software version 20.00 since the data violated the assumptions of normality and homogeneity of variance.

FINDINGS

The frequency and percentage of students in the experimental group and control group who acquired Level 0, Level 1 and Level 2 in the pretest and posttest regarding the topic of geometrical angles are shown in Table 2.

Table 2
Frequency and percentage of students at different levels in the Pre and Post Van Hiele Achievement Test

Van Hiele Achievement Test		Van Hiele levels of geometric thinking					
		Level 0		Level 1		Level 2	
		f	%	f	%	f	%
Pretest	Experimental (n = 38)	27	71.1	10	26.3	1	2.6
	Control (n = 36)	27	75.0	9	25.0	0	0.0
Posttest	Experimental (n = 38)	1	2.6	4	10.5	33	86.8
	Control (n = 36)	9	25.0	2	5.6	25	69.4

Before intervention for the experimental group, the pre Van Hiele Achievement Test was administered to enquire the initial Van Hiele levels of geometric thinking among the students. In the pretest, 27 (71.1%) , 10 (26.3%) and one (2.6%) of the students in the experimental group were found to have acquired Van Hiele Level 0, Level 1 and Level 2 of geometric thinking respectively. On the other hand, 27 (75.0%), 10 (25.0%) and 0 (0.0%) students in the control group had acquired Van Hiele Level 0, Level 1 and Level 2 of geometric thinking respectively. It was found that students in the experimental group performed slightly better than students in the control group in the pretest.

After the phase-based instruction using Geometer's Sketchpad, 33 (86.8%) students in the experimental group acquired Van Hiele Level 2 of geometric thinking but one (2.6%) of the students was still at Level 0. On the other hand, 25 (69.4%) students

in the control group had achieved Van Hiele Level 2 of geometric thinking after the instruction of angles using traditional approach. However, nine (25.0%) of them were still at Level 0. In general, the students in the experimental group performed better than the students in the control group in the post Van Hiele Achievement Test.

Question 1: Is there any significant difference in the pupils' Van Hiele levels of geometric thinking regarding angles between the experimental group and the control group before the intervention?

Results of the Mann-Whitney test (as shown in Table 3) for pre Van Hiele Achievement Test indicate that there is no significant difference in Van Hiele levels of geometric thinking between the experimental group (*Median* = 0) and the control group (*Median* = 0), U (n_1 = 38, n_2 = 36) = 652.50, z = -0.44, p = 0.66 at the significance level of 0.05.

Table 3

Result of Mann-Whitney U Test (U) and Effect Size (r) for experimental and control groups in pre Van Hiele Achievement Test

Group	Mean	Median	Mean rank	z	U	p	r
Experimental (n = 38)	0.32	0	38.33	-0.44	652.50	0.66	-0.05
Control (n = 36)	0.25	0	36.63				

The mean rank of the experimental group (38.33) was slightly higher than the control group (36.63) indicating that the students in the experimental group possessed slightly higher Van Hiele levels of geometric thinking at the initial stage than students in the control group. The effect size is -0.05, which shows that both the groups had only a small effect on the students' achievement in pre Van Hiele Achievement Test according to Rosenthal (1991). Using Rosenthal's (1991) interpretation of the effect size, ±0.1 and below, a small effect size, ±0.3 and below indicates a medium effect size while ±0.65 and below reflects a large effect size.

Question 2: Is there any significant difference in the experimental group pupils' Van Hiele levels of geometric thinking regarding angles before and after the phase-based instruction using Geometer's Sketchpad?

Results of Wilcoxon signed-rank test analysis using SPSS (as in Table 4) showed that the students' Van Hiele levels of geometric thinking regarding geometrical angles after phase-based instruction using Geometer's Sketchpad (*Median* = 2) were significantly higher than their Van Hiele levels of geometric thinking before the instruction using Geometer's Sketchpad (*Median* = 0), z = -5.42 with a p-value smaller than 0.01. The difference in Van Hiele level of geometric thinking of the students before and after the intervention period was significant at the 0.05 level of significance as $p<0.05$. The effect size for the phase-based instruction using Geometer's Sketchpad was -0.63 which was large, based on Rosenthal (1991).

Table 4
Result of Wilcoxon Signed-rank Test for difference in Van Hiele levels of geometric thinking for the experimental group

Post VHAT – Pre VHAT	N	Mean Rank	Sum of Ranks	z	Asymp. Sig. (2-tailed	r
Negative Ranks	0[a]	0.00	0.00	-5.42[d]	0.00	-0.63
Positive Ranks	36[b]	18.50	666.00			
Ties	2[c]					
Total	38					

Note: [a] PostVHAT < PreVHAT; [b] PostVHAT > PreVHAT; [c] PostVHAT = PreVHAT; [d] Based on negative ranks

Question 3: Is there any significant difference in the control group pupils' Van Hiele levels of geometric thinking regarding angles before and after the instruction using traditional approach?

Based on the results of Wilcoxon signed-rank test as shown in Table 5, the students in the control group acquired significantly higher Van Hiele levels of geometric thinking in post Van Hiele Achievement Test after the instruction on geometrical angles (*Median* = 2) compared to their Van Hiele levels of geometric thinking before the instruction of geometrical angles (*Median* = 0), $z = -4.65$ with a *p*-value smaller than 0.01. The result shows that students in the control group had progressed significantly after the traditional instruction on geometrical angles. The difference in the Van Hiele levels of geometric thinking of the students before and after instruction was significant at the level of $\alpha = 0.05$ as $p < 0.05$. The effect size for the traditional instruction of geometrical angles was -0.54 which was large based on Rosenthal (1991).

Table 5
Result of the Wilcoxon Signed-rank Test for difference in Van Hiele levels of geometric thinking for control group

Post VHAT – Pre VHAT	N	Mean Rank	Sum of Ranks	z	Asymp. Sig. (2-tailed	r
Negative Ranks	1[a]	6.00	6.00	-4.65[d]	0.00	-0.54
Positive Ranks	27[b]	14.81	400.00			
Ties	8[c]					
Total	36					

Note: [a] PostVHAT < PreVHAT; [b] PostVHAT > PreVHAT; [c] PostVHAT = PreVHAT; [d] Based on negative ranks

Question 4: Is there any significant difference in the pupils' Van Hiele levels of geometric thinking regarding angles between the experimental group and the control group after the intervention?

The Mann-Whitney test analysis using SPSS (as shown in Table 6) showed that the difference in Van Hiele levels of geometric thinking between the students in the experimental group (*Median* = 2) and the students in the control group (Median = 2) was significant, $U(n_1 = 38, n_2 = 36) = 548.00$, $z = -2.05$, $p = 0.04$ at the significance level of 0.05. The mean rank of the experimental group (41.08) was higher than the mean rank of the control group (33.72), indicating that students in the experimental group possessed higher Van Hiele levels of geometric thinking than students in the control group after the intervention period. The effect size is -0.24, indicating only a small effect on the students' Van Hiele levels of geometric thinking in post Van Hiele Achievement Test according to Rosenthal (1991) as the r-value is below the 0.3 criterion for a medium effect size.

Table 6
Result of Mann-Whitney U Test (U) and Effect Size (r) for the experimental and control groups in post Van Hiele Achievement Test

Group	Mean	Median	Mean rank	z	U	p	r
Experimental (n = 38)	1.84	2	41.08	-2.05	548.00	0.04	-0.24
Control (n = 36)	1.44	2	33.72				

DISCUSSION

Result of the Mann-Whitney *U* Test revealed that the Van Hiele levels of geometric thinking among students in the experimental group and control group did not differ significantly during the pretest. This means that the students in both groups had similar Van Hiele levels of geometric thinking before this study was conducted.

After eight sessions of phase-based instruction using Geometer's Sketchpad, the students in the experimental group improved significantly in terms of their Van Hiele levels of geometric thinking regarding geometrical angles. This result implies that phase-based instruction using Geometer's Sketchpad is useful as an approach for guiding primary school pupils to progress to higher Van Hiele levels of geometric thinking.

On the other hand, students in the control group also improved significantly in their Van Hiele levels of geometric thinking regarding geometrical angles after instruction using the traditional approach. Based on this result, we can see that the students gained higher Van Hiele levels of geometric thinking after traditional teaching of geometrical angles.

By comparing the post Van Hiele levels of geometric thinking among the students in both groups using Mann-Whitney *U* Test, it is clear that students in the experimental group acquired significantly higher Van Hiele levels of geometric thinking compared to students in the control group. Based on this data, it is concluded that the phase-based instruction using Geometer's Sketchpad is more effective than the traditional approach in enhancing students' Van Hiele levels of geometric thinking.

Results of the Mann-Whitney test on pupils' post Van Hiele Achievement Test suggest that pupils who underwent phase-based instruction of geometrical angles using Geometer's Sketchpad performed significantly better than the pupils who underwent instruction using traditional approach at the 5% level of significance. It seems that phase-based instruction of geometrical angles is more effective than the instruction of geometrical angles using traditional approach in improving pupils' Van Hiele levels of geometric thinking.

This finding is consistent with the studies conducted by Chew and Lim (2013), and Chew and Idris (2012) which reported that phase-based instruction using Geometer's Sketchpad is effective in enhancing pupils' Van Hiele levels of geometric thinking. This result also concurs with the study conducted by Dimakos and Zaranis (2010) where the experimental group pupils performed significantly better than the control group pupils in the posttest compared to their pretest after involvement in inductive Geometer's Sketchpad activities.

CONCLUSION

In conclusion, phase-based instruction using Geometer's Sketchpad has helped Year Four students in this study to acquire significantly higher Van Hiele levels of geometric thinking in the topic of geometrical angles. Although it may not be easy for primary school students to utilise the Geometer's Sketchpad well on their own as a tool for learning geometry, well-designed pre-sketched Geometer's Sketchpad activities (Idris, 2009) as well as proper guidance and facilitation from the teacher (Chew & Lim, 2013) may be helpful for students to overcome the difficulties. .

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SOCIAL SCIENCES & HUMANITIES

Overcoming The Shadow and Achieving Individuation through a Hero's Journey in Tunku Halim's "A Sister's Tale"

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ABSTRACT

In Jungian psychology, Individuation is the process of achieving psychological maturation wherein individuals are able to integrate their conscious and unconscious mind to create a balanced psyche. One aspect of the unconscious mind that needs to be integrated with the conscious is the Shadow, a psychological component consisting of all rejected and repressed aspects of one's personality. The process of dealing with the Shadow aspect is analogous to the journey of the Hero archetype, and the goal of this journey is Individuation, whereby one becomes connected to their Self, an archetype that represents wholeness and totality. In Tunku Halim's "A Sister's Tale" (1999), Jessica has been pulled into a Hero's journey because of an unaddressed repressed guilt that ultimately becomes her Shadow. This paper aims to examine Jessica's Heroic journey in attaining her Self through the integration of her unconscious component, the Shadow, with her consciousness. To achieve this objective, the text is analysed through Jungian's concept of the Shadow and Hero archetypes. The findings reveal that Jessica's Shadow had become too dense for a successful integration to occur and therefore, she failed to achieve Individuation.

Keywords: Archetypes, hero, individuation, Jungian, self, shadow

INTRODUCTION

The concept of the Self as the centre of human psyche was developed by Carl Jung in analytical psychology. Considering Jung's history and apprenticeship under Sigmund Freud, this concept is noticeably distinctive from Freudian psychoanalysis which proposes that the centre of the

psyche is the Ego. While the centre of the psyche in Freudian theory mediates one's instinctive uncontrollable desire (id) and acquired societal rules (superego), Jungian centre of the psyche lies on a deeper level. The Self needs to be discovered through a process called Individuation. Once the Self is discovered, the individual is considered to have attained a wholesome personality, thus becoming complete.

The process of achieving Individuation mimics the Archetype of Hero and Hero's journey. Archetypes are collective images shared among people regardless of their cultures. These images imprint themselves onto folklore, myth, fairy tales and such. In almost every heroic cultural tale, the heroes share similar characteristics, going through similar patterns or stages. While not all tales may follow the exact same patterns, they are generally similar in outline (Johnson Jr., 1973). The heroes will go through a journey, complete tasks, and achieve their goal. For this reason, the journey of Individuation is equated with the Hero's journey - an individuating person needs to address the elements of their unconscious in order to discover their Self, thus receiving enlightenment at the end of their journey.

One element of the unconscious that needs to be addressed is the Shadow. The Shadow refers to all thoughts and traits rejected by the conscious mind which are then repressed in the unconscious mind. Shadow that is not addressed will eventually become dangerous to an individuals' psychological health and may lead to neurosis (Jung, 1958). In mythology,

the Shadow is often represented by the villainous monster that the Hero needs to defeat (Jung, 1959b). Only through a triumphant battle against the monster can the hero gain his boons and return as a wiser person. Similarly, individuals who have successfully integrated their Shadow will reach Individuation and gain access to their Self, thus achieving psychological maturation.

A similar journey can be traced in Tunku Halim's "A Sister's Tale" (1999) which tells the story of guilt and overcoming the said guilt to achieve enlightenment. The short story narrates the tale of two sisters, Jessica and Anna, fighting for the love of one man, Kia Seng. Kia Seng, who was initially Anna's romantic partner, left her to marry Jessica. In a fit of rage, Anna decided to avenge Jessica's betrayal by poisoning her, but accidentally poisoned herself instead. Moments before her death, Anna told Jessica that she will return to kill her if she does not remain faithful to Kia Seng. After years of being loyal to her husband, Jessica started having an extra marital affair which thrusted her into a psychological journey for Individuation, wherein she has to deal with her repressed guilt that has become her Shadow. While undergoing this journey, she had to assume the role of a Hero in order to slay her inner demon, her Shadow, to achieve psychological maturation or in Jungian term, Individuation. This paper aims to examine Jessica's Heroic journey in order to determine whether her Individuation journey is successful. Being unwittingly pulled into a psychological journey akin to

a mythical hero's adventure, Jessica must face and deal with her version of mythical monster, her Shadow, in order to achieve psychological victory, which is the balance in her psyche and psychological maturation.

LITERATURE REVIEW

For this paper, Jung's concepts of Shadow and Hero archetypes are applied to study the character of Jessica. In previous studies, Tunku Halim's works have been analysed through the lens of the gothic and the grotesque theories. His novel, Dark Demon Rising (1997) has been assigned with the characteristics of global gothic, which is defined as a national, regional or localised version of Gothicism (Byron, 2015). Byron asserts that the portrayal of the supernatural in this novel is an amalgamation of the local and Western images. Meanwhile, the grotesque is observed in the act of deviant sexuality through which the characters engage in sexual relationships that defy both cultural and religious norms (Ahmad Jafni, 2015). Psychological interpretation of Dark Demon Rising was suggested by Byron (2008) who pointed out certain ambiguities in the narrative. Even though Byron's comment was in regards to Dark Demon Rising, other Tunku Halim's works, like "A Sister's Tale", also shared similar narrative ambiguities that may be best tackled through psychological reading.

In Jungian depth psychology, the archetype of Self represents wholeness and completeness. In an individual, the Self can only be attained through Individuation. The process of Individuation can be associated with the archetype of Hero, in which the Hero has to undergo a journey and complete tasks to achieve victory. In this case, victory represents the attainment of Self, and the tasks are linked to the integration of the elements of the unconscious into the conscious - the elements being the Shadow, which is the core element employed in this study, and the Anima (feminine aspect in men) or Animus (masculine aspect in women), two other other unconscious elements that are outside the scope of the current study.

The Hero's journey has been observed in Henry James' short story "The Great Good Place". Three main stages of a hero's journey as described by a Jungian-influenced mythologist, Joseph Campbell, in The Hero with a Thousand Faces are highlighted in this short story (Herx, 1963). The stages are departure, initiation and return. The character George Dane, who felt he was losing his spiritual identity, departed on his heroic journey with the assistance of a young man. Herx claimed that Dane had lost his life in the real world when he was transported into the dream world, suggesting that death and rebirth are common themes in heroes' journeys. This marked the beginning of the initiation stage. In this dream world, Dane was able to discover his Self. Upon returning to the real world, he was reinvigorated and began to see the world anew. Dane's new outlook, according to Herx, resulted from his ability to illuminate his soul, and restored what he had gained from his journey in the fantasy world into the real world.

Herx's study, however, had failed to pinpoint any specific actions that can be equated to the integration of the unconscious elements with consciousness. As previously mentioned, the Shadow and the Anima or Animus are the unconscious archetypes that are usually addressed in order to reach the Self. The failure to individuate has been observed in regards to the Shadow in Dana Brooke Thurmond's (2012) analysis of Henry James' The Turn of the Screw. She pointed out that strong rejection of the Shadow may aggravate the condition of the Shadow. In this novella, the protagonist of the story projected her Shadow as the ghosts of Peter Quint and Miss Jessel, the deceased employers of the house. The more she rejected the apparitions, the more they took control of her life. Indeed, when the Shadow leaked into the consciousness, it usually appeared in the form of projection. As observed in Edgar Allan Poe's "The Cask of Amontillado", Montresor, an unreliable narrator, described Fortunato as the bad person when in fact, he was projecting all his own negative attributes onto his friend to maintain the idea that he is the nice one (Lau & Wan Yahya, 2013).

Meanwhile, Taghizadeh (2015) explored the role of the Shadow in the hero's journey through Joseph Conrad's The Heart of Darkness. He examined two characters from the novella, Marlow and Kurtz, to explain the role of the Shadow in the attainment of the Self. While Taghizadeh described both characters as being on their respective hero's journey, it was Marlow who had to face his Shadow to achieve Individuation. Marlow's Shadow is projected as Kurtz.

Taghizadeh argued that by meeting with Kurtz, Marlow was able to gain self-knowledge which helped him achieve a whole new personality—the wholeness of his Self. He had achieved his heroic goal, namely to understand the human nature. Kurtz had also achieved similar goal although Taghizadeh mentioned that the nature of their enlightenment differed. He played the role of a sacrificial hero in order for Marlow to receive enlightenment.

CONCEPTUAL FRAMEWORK

In psychology and alchemy, Jung (1953) described the Self as the circumference encompassing both the conscious and the unconscious. As an archetype, it represents totality and wholeness. This totality is achieved when there is unity of both the conscious and the unconscious, thus creating a complete human personality which is balanced in all aspects of the psyche. The conscious is represented by the persona which consists of behaviours that conceal one's true nature (Jung, 1966b), and the ego which is the centre of the consciousness (Jung, 1954a). The unconscious is represented by the Shadow which is the collection of repressed desires (Jung, 1989) and the Anima or Animus, the image of one's opposite sex (Jung, 1954b). In the centre of all these elements is the Self. To tap into the Self, one has to go through a quest, similar to the journey of a Hero archetype, in a process called Individuation.

Individuation is a process in which the individual recognises his / her own individuality and becomes a whole,

integrated personality (Jung, 1959a). This was echoed by Jacobi (1973) who explained that Individuation occurs when the individual "know[s] himself for what he naturally is" and not "what he would like to be" (p.132). It involves conscious effort on the part of the individuals who want to come to terms with the Self (Von Franz, 1964). The process is usually jumpstarted by conflicts before the individual becomes conscious of it. When conflict arises, the individual is thrusted into the journey. This is in accordance with Jung's idea that individuation is developed through conflict between two fundamental psychic facts—the conscious and the unconscious (Jung, 1959a). Therefore, it can be observed that there is a parallel between the process of Individuation and the archetype of Hero. Both require the individuals to undergo a quest in order to be transformed and reborn.

Connolly (2002) mentioned that during the quest of Individuation, individuals will encounter several images that correspond to their unconscious elements. In fiction, these images are usually the projection of either the character's Shadow or Anima/Animus. It is therefore, necessary to trace these unconscious aspects which will usually create significant challenges for the character. For this study, the Shadow will be examined as a part of Jessica's Heroic quest.

SHADOW

The Shadow represents the repressed aspects of one's personality that are not allowed to surface onto the conscious mind (Jung, 1989). Most humans are unaware

that they are suppressing these thoughts and desires into their unconscious, or that they even have a dark component in their psyche. Indeed, Jung mentioned that humans are rarely aware that they have a Shadow, thereby suggesting that the mere existence of the Shadow is frightening (Jung, 1966a). The act of continually repressing or ignoring the Shadow may cause even the "little weakness" and "foibles" (Jung, 1966a, p. 30) to become "blacker and denser" (Jung, 1958, p. 76) and grow into "a raging monster" (Jung, 1966a, p. 30). In fact, the more aggressively the Shadow is rejected, the more destructive it becomes. Human's rejection of the Shadow is aligned with Whitmont's (1979) notion of the Ego ideal. The Ego has an ideal personality; by ignoring the weakness or unwanted aspects, the Ego ideal is satisfied.

In the quest for Individuation, the Shadow is one of the aspects that needs to be addressed. The individual becomes whole only when their unconscious is integrated with the conscious and when they come to terms with the disowned facets of themselves. In this aspect, the Shadow can be described as being the opposite of, yet compensates the archetypes of the Persona (Trouba, 2002). In dealing with unwanted aspects of oneself, the Persona and the Shadow both play a role. The Persona works by masking the rejected desires away from the public eye through conscious and deliberate actions. In contrast, the Shadow works at a deeper level. These undesirable characteristics are repressed into the unconscious involuntarily, becoming

the Shadow that remains hidden until it is acknowledged and dealt with.

Dealing with the Shadow involves moral effort. Jung (1959c) explained that the Shadow is a moral problem and becoming conscious of the Shadow requires significant moral effort. The relationship between the Shadow and moral is deeply interwoven. Jung further commented that to become conscious of the Shadow, one must be willing to recognise the dark aspects of oneself. This involves confronting the thoughts that are against one's moral beliefs, for the Shadow itself was born out of moral constraints created by society. Dealing with the Shadow also involves moral efforts because it is one's moral responsibility to become conscious of one's Shadow—failure to do so would result in "negative projection into the social world" (Leibing & McClean, 2007, p. 4). Projection is a defence mechanism that refers to the psychological reaction towards anxiety involving the projection of the said anxiety onto external objects (Freud, 1911). Jung claimed that individuals who are not aware of their Shadow have a tendency to project their unconscious traits onto others (Jung, 1967). With this understanding, one can concur that projection occurs when the Ego feels threatened by the Shadow and therefore finds comfort in ascribing one's Shadow characteristics onto others instead. By doing so, it creates an illusion that one is a nice person. Therefore, by projecting these traits onto others, one inadvertently reveals one's Shadow—the part of oneself which one refuses to acknowledge but projects onto others. When individuals are

able to withdraw all their projections, it means they are conscious of their Shadow. Becoming conscious of the Shadow is the initial step in managing it. When individuals realise that their Shadow is dangerous, they can learn to control it and therefore, be able to accept their weaknesses and anxieties without relying on psychological projection to comfort their Ego.

The Shadow, consisting mostly of dark desires, also has positive aspects that contribute to the development of the psyche, if dealt with properly. This notion was noted by Jung's follower, Von Franz, who pointed out that it is one's own decision to make the Shadow one's enemy or one's friend. Halverson (1963) elaborated that the Shadow initially is frightening to the Ego because it consists of ideas that the Ego has repressed. However, once the Shadow is accepted, it becomes a "helpful friend, helping bring up to consciousness those elements of the unconscious … necessary to the wholeness and health of the self" (p. 438). Jung (1959b) also stated that a hero's main accomplishment is to overcome the monster of darkness. In this aspect, the Shadow, despite its monstrous attributes, is a necessary component in the quest for Individuation. A hero needs to defeat the monster to achieve his goal; an individuating person needs to deal with his Shadow to achieve enlightenment. Without the villain, there will be no hero.

ARCHETYPE OF HERO

A Hero is an individual who undergoes a life-changing journey and successfully

completes the said journey. The universality of this image can be traced throughout the ages, from the ancient myths like the Epic of Gilgamesh, to modern day entertainment figures like Superman. Jung (1956) said that the Hero is the symbol of the unconscious Self and that several other archetypes can be subsumed into the role of the Hero. To name a few, the archetype of the Father can assume the role of a Hero and the archetype of the Wise Old Man can be the result of a completed Hero's journey. In this fashion, the Hero can be considered as almost divine in nature. The divine characteristic of the Hero has been discussed by Jung who further explained that the Hero has a higher stature than a human, and has a godlike quality. This godliness results from the Hero having attained the Self, which is in itself, numinous.

A Hero's main purpose is to triumph over the monster of darkness, or for individuating individuals, the triumph of integrating the unconscious and the conscious (Jung, 1959b). Interestingly enough, Jung mentioned that humans are unconsciously inclined towards the journey of discovering the Self. The quest for Self attainment and the Hero's quest parallel each other in that both involve heroic struggle to bring forth a state of wholeness. The struggle is a major component of being a Hero, as Jung (1963) asserted that individuals are not a hero if they have not faced any challenge or refuse to acknowledge the challenge. Moreover, overcoming challenges would have to be followed by victory before one can be considered a Hero. Achieving

Individuation means to face, acknowledge, and integrate one's Shadow and Anima or Animus—the Ego's villains.

The hero's journey has been described by Joseph Campbell in The Hero with a Thousand Faces. Beforehand, it is worth noting that Campbell's idea is the expansion of Jungian Hero archetype, being described as "the kindred soul of C.G. Jung" (Segal, 2000, p. 12) and a classic of the Jungian analysis of the Hero. While current analysis will not focus much on Campbell's expansion of the Hero archetype, his three stages of hero's journey are significant enough to be foregrounded. Campbell (2008) asserted that every heroic tale followed the separation-initiation-return outline. Separation occurs when the hero is called away to adventure, initiation follows when the hero faces trials and challenges, and finally the hero returns after ending his journey and gaining new knowledge. Johnson Jr. (1973) stated that a hero begins his adventure in a normal world before being transported into a realm of supernatural wonder. Through trials and tribulation, the hero will return a victor, bringing with him something beneficial. This general pattern can be traced in almost every heroic tale even though there may be slight variations among them.

Upon finishing the journey, a hero will acquire self-confidence and have the right to feel confident about tackling future problems because he has experienced the journey before (Jung, 1963). Therefore, individuals who have experienced Individuation will gain self-confidence from having

encountered the worst of themselves—the manifestation of their personal Shadow or Anima/Animus and integrated these elements with their conscious Ego and Persona to create a wholesome, united personality.

ANALYSIS

What appears to be a classic story of jealousy and rivalry among siblings which ends in tragedy can be interpreted differently using Jungian concept of the archetype. Jessica is depicted in the short story as a conflicted character who is pulled into a journey similar to the journey of an archetypal Hero. The source of her mental conflicts can be traced to her Shadow— her repressed thoughts that she refused to acknowledge. True to Jung's description, a Shadow that is continually ignored will grow into a monstrous form and damage the person's psyche. For Jessica, her Shadow manifested into a grotesque vision of her deceased sister, Anna, who supposedly came back from the dead to exact revenge. Jessica was haunted by the guilt she experienced after leaving Anna to die in an incident that had happened 17 years before. However, her refusal to acknowledge her guilt resulted in the thoughts to fester in her unconscious mind. The more adamant she was in ignoring this Shadow, the stronger it became until it manifested into her conscious mind as a monster. Similar to the Hero's journey, her personal psychological journey required her to slay this monster in order to attain victory—which is to her, a psychological maturation, or the Self.

Jung mentioned that a person with dense Shadow will use projection to channel out their undesirable thoughts. This behaviour is observed in Jessica who was dissatisfied with her married life. She felt that "her sister's words had kept her faithful to Kia Seng, the sister that tried to kill her, the one that wanted Kia Seng to herself. What a joke!" (Tunku Halim, 2016, p. 404). Jessica blamed her dead sister, Anna, for her dissatisfied life even though she herself had made the decision to marry Kia Seng. She claimed to only love Kia Seng even though she knew she could never be faithful to him. She projected her own failure onto Anna. It is hinted here that Jessica had a fixation towards Anna even before she started having an affair with her new lover, Weng Feh. She had remained faithful to her present husband, Kia Seng, because of Anna's presence in her mind. It appeared to be a relatively harmless form of projection since her anxiety was projected towards a dead person. However, by refusing to let go of the memory of Anna, Jessica unwittingly allowed Anna to linger in her unconscious mind, and slowly it turned into a formidable Shadow.

Once her affair with Weng Feh started, Jessica began experiencing more intense disturbances which can be attributed to the Shadow leaking into her conscious mind. It was subtle at first, taking the form of a shadowy twisted face in a painting and a whisper in the wind. Jessica chose to reject the tell-tale sign of a festering Shadow in her psyche. Her rejection of the Shadow is evident in her claim that "she wasn't going

to let Anna curse her. So she bought [the painting] from the hotel to show she wasn't afraid. Anna was dead and she would stay dead" (p. 403). Her defiance in refusing to address the Shadow stems from her denial of guilt—she had deliberately let her sister die. Jessica's actions illustrate Jung's notion that humans are rarely aware they are carrying a Shadow that can be of a "positively demonic dynamism" (Jung, 1966a, p. 30). Jessica's Shadow was beginning to assume a demonic form and her decision to ignore it might have stemmed from the fact that she was oblivious to its danger.

Jessica's next encounter with her Shadow is a pivotal part of the story. This is when the Shadow appeared before Jessica as a tall, shadowy feminine figure. This figure fits the description that Jung had ascribed to the physical manifestation of Shadow in one's dream. He said that the Shadow often appears in dreams as an actual shadow and more commonly of the same sex as the dreamer (Von Franz). Despite having had a face-to-face encounter with her Shadow, Jessica continued to reject the Shadow, claiming that "she must have imagined the woman-thing" (Tunku Halim, p. 404) and resumed her evening seemingly undisturbed, albeit briefly before another encounter propelled her into a Hero's journey.

The main purpose of a Hero's journey is to defeat the "monster of darkness" (Jung, 198, p. 167). Jessica was pulled into this journey by a monster of her own creation and once she embarked on her journey, her main goal was to overcome this monstrous

Shadow. Initially, she did not show any intention in undertaking the journey. The initial awareness of her distress can be traced to her dissatisfaction even though she was "seemingly contented with life" (Tunku Halim, p. 388). This is also the point in which Tunku Halim introduced symbols which illustrate the condition of Jessica's psyche. It was dusk, there were overhanging branches (p. 388) and "heavy threatening clouds hanging low in the sky" (p. 390). All these images conjure the sense of darkness and shadow which culminate in the appearance of the shadowy figure.

Despite the destructive nature of the woman-thing entity, it plays the role of an usher for Jessica into the realm of adventure. In myths, this role is usually played by a crone, a godmother, hermit or a ferryman (Herx, 1963). The usher is the agent that carries the Hero into the spiritual world. Aided by the entity, Jessica drifted into the world of a Heroic adventure. In reality, she was comatose after the encounter with Anna the woman-thing, and she experienced her Heroic journey in a dream state. In contrast to most myths wherein the adventure is commenced by the aid of a character with the specific role as an usher, Jessica was pulled in by her Shadow—her enemy. As Von Franz had pointed out, the Shadow is not always evil and can also take on a friendlier role. In this case, the woman-thing plays the positive function by jumpstarting Jessica's journey through the attack.

The readers' insights into Jessica's journey can only be observed through an external perspective. Falling into a

stupor throughout the psychological Heroic journey, the plot focus shifted to Kia Seng, her husband. Even though the journey was not explicitly narrated because of the shift in focus, the readers are given several tell-tale signs of the battle with the Shadow through Jessica's autonomous actions as witnessed by Kia Seng. These signs follow two of the three steps of dealing with the Shadow: acknowledging the Shadow, mastering the Shadow, and finally assimilating with the Shadow. This is in agreement with Henderson (1964), one of Jung's immediate disciples, who stated that Heroes must acknowledge that the Shadow exists and they must be able to master and assimilate the Shadow in order to achieve victory.

The first step is to acknowledge the Shadow and this occurred before Jessica was pulled into the dream world. Jung mentioned that the Shadow is a moral problem—it takes considerable moral effort to face one's dark side in order to acknowledge the Shadow. This posed a challenge for Jessica because she was unable to embrace her dark side. Her mind had "strayed many a time" and "thought never become action" even though "there was the odd remark, the odd look, the odd touch," she dismissed them as "nothing" (p. 404). This exemplified that Jessica knew that she could not remain faithful to her husband and she was not willing to address that. Furthermore, she did not feel guilty about her extra marital affair with Weng Feh. When she thought, "Damn Weng Feh! Damn that wife of his!" (p. 404), she was unconsciously refusing to address her guilt by projecting it onto Weng Feh and

his wife instead. These examples show that she did not have enough strength to face her own morality. Jung (1964) mentioned that healing will not come as long as individuals try to convince themselves that only their opponents are wrong. In Jessica's case, she was unwilling to acknowledge her Shadow until the Shadow pulled her into the journey.

The next step is to master the Shadow. This step occurred after Jessica entered the dream world when she was in a vegetative state. Even under partial wakefulness, Jessica was psychologically deep in her Heroic adventure, trying to master her Shadow by learning its behaviour. This psychological action was sometimes translated onto bodily movements which Kia Seng took special interest in. The first of these episodes was her physical response to the sounds of gecko. The doctor who was tasked to treat Jessica had mentioned that it could be a reaction towards the "high pitch of [the sound] or maybe that particular sound" itself (p. 411). Jessica responded to the sound because the woman-thing produced high-pitch giggles similar to the sound of the gecko. "…She heard high-pitch giggling" (p. 406) right before she was attacked and knocked herself out. Her reaction towards the sound indicates that she was trying to face her Shadow, actively searching for its presence.

Later, Jessica began to actively re-enact her fight against her Shadow. She was actively killing mosquitoes even though she was still unconscious. The mosquito, being a blood-sucking creature, represents the woman-thing which Jessica believed to

be a blood-sucking monster. The woman-thing was described as having a "cavern of sharp teeth punctuated with two long ugly fangs" (p. 391). The readers are also led to believe that the creature had killed Weng Feh because of the "two dark gaping puncture marks sat on his neck" (p. 406). Therefore, the blood-sucking characteristics of mosquitos and the high-pitch sound came to represent the woman-thing in the real world. This episode illustrates that Jessica's inner battles with her Shadow in her dream world were translated into her actions in the real world.

The final step in coming to terms with the Shadow is assimilation. The Shadow is assimilated when individuals accept the Shadow as a part of themselves. In myths, the slaying of Dragons or other monsters signifies the assimilation of the Shadow (Henderson). Upon successfully slaying the monster, the hero will complete his goal. Therefore, assimilation of the Shadow will bring individuals closer to Individuation and the attainment of Self. This would have been Jessica's last trial in her Heroic journey. The process of assimilation is translated into Jessica's struggle to integrate her consciousness with her Shadow. Similar to the previous step, the inner battle manifested into the real world through physical actions. It is a violent struggle, as Kia Seng noted "her eyes were wide open, staring blankly at the ceiling, lips twitching" (Tunku Halim, p. 416). Subsequently, Jessica woke up from her stupor, seemingly gaining her consciousness. At first glance,

the assimilation process appeared to be successful.

However, Jessica's behaviour afterward indicates otherwise. There was "a strange expression in her eyes," she looked at her sons "awkwardly" (p. 417) and refused to have ice cream, her favourite food (p. 418). She had assumed a different personality. Therefore, it can be concluded that Jessica failed her Heroic journey. In the dream world, she was defeated by her Shadow and she failed to become a Hero. The consequence in the real world is she had fallen into a psychosis. Psychosis is an extreme dissociation of the personality which is caused by the activity of the unconscious complexes (Jung, 1976). For Jessica, it is her unresolved Shadow complex that caused her to become psychotic. Falling into psychosis, she failed to achieve Individuation because she had created a potent and formidable Shadow in her unconscious mind. A Shadow that is continually suppressed and ignored will erupt in period of extreme duress and Jessica's refusal to acknowledge her Shadow became the cause of her destruction. Her Shadow proved to be an indomitable adversary and she was ill prepared for the journey. This is in accordance with Jacobi's statement that any solitary attempt at Individuation is "extremely dangerous" (p. 107). Jessica's fate in the end concurred with this statement.

CONCLUSION

The attainment of the Self is an ideal, which humans instinctively strive for. To

be reborn into a new, whole personality is considered a victory that only a few humans accomplish. Treading the path of Individuation is often an arduous and perilous task which requires heroic effort. The most challenging part of the journey is having to face one's dark side, the Shadow which is every part of oneself rejected by the conscious mind. Meeting face-to-face with the disowned parts of oneself requires tremendous effort, especially after the long ignored and suppressed Shadow becomes a monstrosity. However, once individuals are able to overcome these trials and successfully integrate their unconscious and conscious, they will achieve totality and wholeness in character.

Unfortunately, not all individuals who embark on this Heroic journey succeed. Jessica in this short story is an example of an individual who failed to achieve Individuation. Her failure was caused by her unwillingness to face her Shadow. Due to her insatiable sexual desires and promiscuity, and wilful act which led to her sister's death, she had formed immense guilt which she constantly ignored. The repressed guilt decayed into a dark and sinister Shadow.

Her Shadow grew in intensity until it finally manifested as a demonic entity that threatened to kill her. This catapulted her onto a journey of Individuation. However, by that time, her Shadow had grown too strong for her to overcome. Moreover, her refusal to acknowledge the Shadow right before she was pulled into the quest did not give her much time to mentally prepare herself. It was only during the quest that she began to acknowledge and tackle her Shadow. Unfortunately, her attempt to assimilate the Shadow failed and the Shadow took over her psyche. Towards the end, Jessica's personality was consumed by her Shadow, and she fell into psychosis due to her unresolved Shadow complex. In a nutshell, Jessica was not able to overcome her Shadow and therefore had failed in her Heroic journey towards Individuation.

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Integration of Values and Culture in Malay Folklore Animation

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ABSTRACT

This study focuses on the integration of values and culture in the Malay folklore animation. The objectives of the study are to rank and discuss the values and culture in the Malay folklore animation. The study adopts the values incorporated in the Malaysian National Education Philosophy (1996) to analyse the values and culture in the animations. The philosophy consists of 16 values, which are understood by all students in Malaysia. The values stated are related to the culture among the community, with 10 animations from *The Kingfisher Stories*. The results of the study reveal that the folklore *Leader* and *Palm Tree* contain the most number of values, that is, 10 values, while the folklore *Crow*, with two values, is ranked the lowest. The results show that values and culture are important in folklore. It is hoped that further studies will focus on values in Malay short stories.

Keywords: Values, culture, folklore, animation

INTRODUCTION

Animation has played a major role in children's education, besides giving children the opportunity to interact with other children. Also, animation allows creativity in storytelling and helps to create new stories that are related to the ones that they have heard or read. Good animation will create good atmosphere among children. Due to a strong preference for animation, many forms of animation are published or available on the Internet and movies. Animation like *Frozen* has shown that it is appreciated not only by children but

by all age groups. *Frozen* is adapted from folklore and therefore, the storyline or plot can be remembered by children and adults. As such, it is appropriate for folklore to integrate values and culture (Md Ishak, 2005; Rahmat, 2006) in animation so that the animation can be understood and can demonstrate all the good values in children's or adults' everyday lives (Hassan, 2010). Values are important in our everyday life (Abd Rashid, 1993), so in order to share values, a person needs to understand the meaning. Awang Pawi (2011) adds that the existence of Malay folklore has given a big impact to the community and can be integrated into new technology.

VALUES, CULTURE AND FOLKLORE

Saidin and Abdul Majid's (2012) study discussed children's identity development via Malay reading materials. The study believed that Malay literature materials play a role in forming children's identity. According to the study, there are many moral values in the Malay literature which are able to mould the identity and personality of children. Therefore, this study focused on the outcomes and engagement of these materials on children's self-esteem. Here, it can be seen that self-esteem, that is, confidence in doing something is one of the values and cultural practices mentioned in the Malaysian National Education Philosophy (1996). This study was a combination of library methods and field methods. The research instruments applied were interview, observation and content analysis. The result of the study

demonstrated that Malay reading materials have constructed a positive impact on children's identity development. The study yielded similar results with the study of Sujud and Nik Muhammad Affendi (2011) and Awang Pawi (2015), where children would prefer to read stories that consisted of values in order to integrate the culture within them. Husin (1989) claimed that values could be integrated with the formation of character and identity of the child. Therefore, the integration should start as early age as possible.

Sujud and Nik Muhammad Affendi (2011) claimed that children's emotion can be identified through literature reading materials. Most of the reading materials consisted of stories from folklore. The study involved students from the age of seven to 12 years. A total of 30 students from three schools in Malaysia were selected at random. The students were interviewed and observed. The result of the study revealed that the students were content with the reading materials and were also able to identify the values and culture from the reading materials. Further, Mahmor and Hashim (2015) concurred that the evolution of children literature in Malaysia can be seen through animation stories on television and the web. Besides, animation can be easily accessed at any time. The television channels listed are TV3, TV9, Astro Ceria and Disney Channel. Although some of the channels have animations that are not related to the Malay folklore, the Malaysian community can relate to these stories with elements from folklore that they know.

Mahmor and Hashim's (2015) study focused on feminism in the animation *Upin and Ipin*. It was found that the creator of *Upin and Ipin* portrayed women's characters as humble, passive, and submissive to fate. However, in the same regard, the study also found that women characters in the animation showed positive vibes and had high moral values.

The integration of values plays a major role in helping children become aware of the meaning of each value in their everyday lives. Che Yaacob and Abd Rahim's (2016) study on the value of kindness in the Malay folklore revealed that values are embedded in the stories in order to be shared with readers. The finding of the study was parallel to their own previous study (Che Yaacob & Abd Rahim, 2014) which also depicted other types of values. It can be seen that values have been important in the Malay folklore for a long time, as it is the only way to disseminate values to the younger generation. Folklore is not only known and spread through stories of folklore, which are read but also through songs of folklore. Che Yaacob and Abd Rahim (2016) focused on folklore songs and students' perception of these folklore songs. It was found that the students were able to share their stories and identified the values in the stories. Other studies by Awang Pawi (2015, 2011) also claimed that folklore has become dynamic and relevant when used as a toll in the political propaganda in Malaysia. There are also movies based on folklore like *Bawang Putih Bawang Merah*. There is also new and modern folklore which has been filmed like Magika in 2010, therefore showing that the Malay folklore has been a preference among the community. The aspect of intellectuality includes stories like *Badang, Bawang Putih Bawang Merah, Pak Pandir, Mak Mandir, Mahsuri, Hang Tuah, Puteri Gunung Ledang* and *Batu Belah Batu Bertangkup*.

There are also other studies on animation that involve values. Studies on awareness of folklore in animation that involve children show that children prefer animation for better understanding of the folklore (Abd Rahim, 2014a; Abd Rahim, Abdul Halim, & Mamat, 2014); studies on folklore songs have found that children are interested to story tell folklore by using their own words (Abd Rahim, 2014b; Abd Rahim & Harun, 2016; Che Yaacob & Abd Rahim, 2014; Sulong & Abd Rahim, 2015). Other studies on perception of animation also found that children and adults give positive feedback on animation related to folklore, are interested to rewrite the stories, and explain and discuss the main characters in folklore (Abd Rahim, Mamat, Ab Halim, Sujud, & Roslan, 2013; Mamat, Abdul Halim, Mansor, & Abd Rahim, 2016; Mamat, Abdul Rashid, Abd Rahim, & Abdul Halim, 2014; Mamat, Mansor, Abdul Halim, & Abd Rahim, 2015; Rosly, Abd Rahim, & Abdul Halim, 2016, 2015). Studies on perception towards folklore using rewritten folklore have also been found to be interesting, easy to understand, consisting of

interesting settings and plots (Abd Rahim, Abdul Halim, Mamat, & Mansor, 2016; Che Yaacob & Abd Rahim, 2016, 2014).

Hence, the objectives of the present study are to rank and discuss the values related to culture in the Malay folklore animation.

METHOD

The study adopts the values embedded in the Malaysian National Education Philosophy (1996) to analyse the animations. The philosophy consists of 16 values known to all Malaysian students. The values stated are related to culture among the community. These values are kindness, self-reliance, good manners, respect, affection, justice, freedom, courage, physical and mental hygiene, honesty, hard work, cooperation, awareness, gratitude, rationale and community spirit. However, the value of freedom is not analysed due to irrelevance in the animation. Freedom is subject to the rules and laws prescribed by religion, society and country. It is related to freedom in the legal aspect and freedom in democracy. As such, the stories from these animations are non-related to freedom.

The Kingfisher Stories consist of 10 animations. These animation stories were used to analyse the values and culture in the stories. The stories were based on the Malay folklore which was rewritten by Abd Rahim (2016) and copyrighted by *Dewan Bahasa dan Pustaka*.

SUMMARY OF 10 ANIMATIONS

Leader

The story is about a group of birds in the forest. They try to elect a leader among them since there have been incidents of baby chicks taken away by other birds. In the beginning, they elect the eagle. But the next day, there are birds missing, as they are eaten by the eagle. Then, they elect the hawk and the same thing happens the next day. Finally, they decide not to have any bird as the leader. The chicken then decides to help by waking them up every morning to avoid any danger.

Jalak and Biring

Jalak and Biring are two roosters. They live in a village with other chickens. Jalak is strong but arrogant towards other chickens while Biring, which is also strong, is a good rooster. One day, Biring invites Jalak to its barn. Biring puts a mirror in the barn. When Jalak comes, it is surprised because there is another rooster that looks like Jalak. Jalak is actually fighting with its own self thinking that it is fighting with another rooster. It becomes tired. Eventually, Biring comes out and informs Jalak that there is a mirror in the barn. Jalak feels embarrassed at itself.

Bird of Paradise

The bird of paradise lays an egg in the nest. It then flies away. A sparrow sees the egg and helps to care for the egg till it is hatched. The

sparrow tries to call the bird of paradise but it has flown away. Soon the egg is hatched and the chick learns how to fly. The sparrow leaves after the chick knows how to fly.

Fox

A number of foxes live in a cave. They live together happily. At night, they hunt for food. During the day, they go back to the cave and sleep. The villagers become angry when they find that most of their chickens are gone. They ask a hunter to find the foxes. The hunter finds a cave full of foxes. The foxes run away when they see the hunter.

Mermaid

A group of mermaids live in the sea happily. One day, they decide to move to another place. They find a river and live there happily. Suddenly, two men see the mermaids. The mermaids get scared and swim away.

Clove

Long time ago, there were people in the kingdom that had the problem of bad breath. Even the king had bad breath. They did not talk to each other. The ladies would use a mask in order to talk. The king tried so many ways to solve the problem but failed. One day, a bird was trying to talk to the princess. The princess stopped playing and listened to the bird. The bird gave the princess a clove. The princess ate the clove and she was surprised that her bad breath had gone away. The princess told the king. The king ordered the villagers to plant a lot of cloves. From that day onwards, the kingdom felt so happy that they could talk to each other again, without any bad breath.

The Stork and the Mouse Deer

The stork and the mouse deer are best friends. One day, they find a big rice crust. They decide to eat the rice crust. However, the mouse deer is clever, so it cheats the stork by telling it that there is a nice place full of food across the river. The stork believes the mouse deer and they both climb up the rice crust and go across the river. The mouse deer keeps eating the middle of the crust and is reprimanded by the stork since it would make them sink. The mouse deer does this again, so the stork flies away. The mouse deer panics as the rice crust sinks. The mouse deer swims to the river bank. It regrets its own behavior.

Crow

One day, a crow and a peacock are talking to each other. They decide to paint themselves so that they would become more beautiful. The crow starts to paint the peacock. It is beautiful. Then, it is the peacock's turn to paint the crow. At that moment, the crow sees a dead animal in the river and wants to eat it. However, the peacock has not completed the painting. Since the crow is too impatient, it tells the peacock to colour its feather with only one color. The peacock manages to colour the crow only black. The crow then flies away to get the dead animal.

Brilliant Akim

Long time ago, there was a village with many people. Every year, the village would be flooded when it rained. The crops and animals died and the villagers had nothing to eat. One day, a boy came to the village. He wanted to help the villagers, so he called his friends, that is, the elephants and other animals to help with the river and the village. The village improved and there was no flood anymore. All the crops could be eaten and the animals survived.

Palm Tree

Once upon a time, the palm trees talked to each other. They would talk about their family and friends. Every day, the palm trees would cry because their bodies were chopped and cut by humans. Humans needed their body parts for everyday use. The palm trees would smile again every time they talked to their family and friends because they knew that they would help humans with their body parts.

RESULTS AND DISCUSSION

In accordance with the Malaysian National Education Philosophy (1996), values should be integrated among Malaysian students. Hence, values are related to the cultural factors in understanding Malay literary texts.

Kindness, Self-Reliance and Good Manners

The first value related to culture is being kind. Kindness towards others means showing a person's care and sincere feelings for the welfare of others. Kindness can be seen by evaluating and looking at the behaviour of others. These include aspects of mercy, consideration, generosity, mutual understanding and readiness to forgive. Here, it can be seen that kindness is integrated in the Malay culture and therefore in folklore, being kind is said and written to illustrate the importance of this value to listeners and readers. For instance, in Malay literary text, kindness is also shown through folklore stories. For example, in the folklore story, *The Stork and the Mouse Deer*, the stork is a kind bird that helps the mouse deer to cross the river with the rice crust as a boat. The stork shows virtues of mercy, consideration and mutual understanding towards the mouse deer. Another example is from *Bird of Paradise*, where the sparrow is a kind bird and helps the bird of paradise to care for its young. The sparrow looks after the bird of paradise's young until it can fly. The sparrow demonstrates mercy, consideration and readiness to forgive the bird of paradise.

The impact of the study is that it will give children the opportunity to identify aspects of mercy, consideration towards others and readiness to forgive others. The values in *Bird of Paradise* are congruent with the study by Abd Rahim (2014a) where children understand the values and culture through the Malay folklore and are able to display these values in their everyday lives.

Next, is the value related to culture of self-reliance. Self-reliance is the ability and willingness to do something without

depending on others. Self-reliance in this context means that a person or animal is responsible, has the ability to act alone and possesses confidence and belief in himself or herself. Here, it can be seen that this value is present in the Malay culture and hence, in literary texts, such as folklore. For instance, this can be witnessed in the story, *Leader*, where the chicken takes the responsibility of waking up all the birds in the forest and ensures their safety against the eagle and hawk. The chicken has the ability to act alone and it believes that taking care of all the birds is a good virtue. Besides that, in *Brilliant Akim*, Akim has taken the responsibility of helping the villagers from the flood. Akim also helps in the process of reconstructing the village after the flood. The impact of the study from the story *Brilliant Akim* shows the culture of self-reliance in order to be responsible and Akim believes that his hard work will ensure the safety of the people in the village.

The third value is the culture related to good manners. A well-mannered demeanor is noble and gentle which should be practised by individuals in their interaction with other community members. The virtues of a well-mannered person include courtesy, acknowledging mistakes and friendliness. Here, it can be seen that all the features are included in folklore. The value and culture of courtesy have been seen among the people since a long time ago. Therefore, it is included in folklore so that the value can be passed down from generation to generation. Courtesy can be seen in the folklore *Brilliant Akim* where he is seen to be courteous

among the older generation. He is also careful when he speaks to the elderly. The culture of acknowledging mistakes can also be seen in folklore. *Brilliant Akim* shows that the villagers acknowledge their mistake of leaving the place in flood without doing anything. Also, in the folklore *Jalak and Biring*, Jalak admits that it has been mean to other animals and arrogant towards others. Similarly, the culture of being friendly is also shown in most folklore. The folklore, *Leader* shows that most of the birds in the forest are friendly with each other. Also, the folklore *Fox, Mermaid* and *Palm Tree* show that the animals are friends with each other and live together in harmony. In the same way, the folklore, *The Stork and the Mouse Deer* also shows that the stork and mouse deer have been friendly with each other.

The impact of the study shows the value of kindness, self-reliance and good manners where the values can be practised among family members at home and students at school. This also shows that a person can be responsible and hardworking for the sake of others. In fact, the values can be practised among adults everywhere. The results of the study are parallel to the study by Abd Rahim and Harun (2016) where these values have made a big impact on individuals who want to make a change in their lives.

Respect, Affection and Justice

The fourth value is related to the culture of respect for each other. Respecting and honouring a person or animal and social institutions is important in order to create a harmonious environment. These include

respect and obedience to parents, elders, teachers, friends, neighbours and leaders, king and country, obeying the law, human rights, beliefs and customs and personality of the individuals. All these values and culture are found in the different stories in folklore. *Leader* shows that birds in the forest respect their leader, such as the eagle and hawk. *Jalak and Biring* also show that Biring respects the other animals. Subsequently, the folklore, *Clove* portrays how the bird respects the princess and the king, while the folklore, *The Stork and the Mouse Deer* shows that the stork respects the mouse deer. In the folklore *Brilliant Akim*, the character of Akim is depicted as a person who shows a lot of respect to the village people and tries to help them.

The fifth value related to culture is affection. Affection is the feeling of love, as well as deep and lasting affection. This feeling is born of a willing heart to do something without any element of self-interest. Affection includes feeling dear to life, the environment, and country, with peace and harmony. The value and culture of affection are clearly exhibited in folklore. The folklore, *Leader* shows that the birds in the forest love their children and are worried that their young are in danger. *Jalak and Biring* also shows that Biring loves Jalak and tries to teach it not to become arrogant with other animals. Likewise, in *Bird of Paradise*, the sparrow shows its love for the bird of paradise's young. The sparrow takes care of the young based on affection and love. The value and culture of affection

are also shown in the folklore, *Mermaid* and *Fox* when all of them shower their affection towards each other and take care of each other. Hence, the folklore, *The Stork and the Mouse Deer* shows that both the stork and mouse deer show their affection towards the environment when they decide to cross the river to go to another peaceful place full of food. However, the folklore, *Clove* and *Brilliant Akim* also display the value and culture of affection when they mention about the environment. The bird in the *Clove* helps the princess and the people in the kingdom to ensure their affection for each other, while *Brilliant Akim* shows that Akim helps the village people in order to create a better environment after the flood.

The sixth value related to culture is justice. Justice is treatment, speech, fairness and therefore, is not biased. There are a few stories from the folklore which show justice. The folklore, *Jalak and Biring* shows that Biring helps Jalak, so, justice is upheld. Jalak has been mean towards other animals and therefore, Biring tries to ensure that justice is maintained. The folklore, *The Stork and the Mouse Deer* also shows the stork gives the mouse deer a lesson in order to have justice when the stork flies away and the mouse deer is left nearly drowned, as a result of its own mistake.

Here, it can be seen that the value and culture of respect, affection and justice have given great impact on folklore and are also practiced in their everyday life. The results of the study are similar to the study by Rosly, Abd Rahim and Abdul Halim (2016) who

found that values are important to nurture children to become better persons when they grow up.

Courage, Physical and Mental Hygiene and Honesty

The seventh value related to culture is courage. Courage is when a person faces challenges with confidence and perseverance. Courage should exist in every person but a person who knows the limit and capabilities as reckless courage will therefore, result in disaster. The values of courage include being brave to do something beneficial - brave enough because you know it is true, dare to make a stand and be brave enough to be responsible.

There are stories in folklore that have the value of courage and are related to culture. The folklore, *Leader* shows that the chicken helps the other birds in the forest by waking them up early in the morning to protect them from the eagle and the hawk. In *Jalak and Biring*, courage with confidence is shown by Biring when it deals with Jalak. Biring sets up the barn by putting a mirror so that Jalak will fight with its own self. *Bird of Paradise* also reveals courage with confidence and perseverance of the sparrow by taking care of the bird of paradise's young until it can fly. In the same way, *Clove* too shows that the bird has the courage to help the princess and the rest of the kingdom to deal with the bad oral smell. As for *Crow*, it can be seen that both the crow and the peacock show courage with confidence and perseverance when both birds decide to colour their feathers with different colors. *Palm Tree*

also depicts courage with confidence and perseverance of all the palm trees when they let their bodies taken away by humans.

The eighth value related to culture is physical and mental hygiene. Physical cleanliness is personal hygiene and environmental sanitation. Mental hygiene also includes speech, behaviour, thought and spirituality. Among them are hygiene, clean environment, kind speech, polite behaviour and healthy and constructive thoughts. One of the stories related to these traits is *Bird of Paradise*. The sparrow gives speaks kindly and shows polite behaviour when it tells the bird of paradise about leaving its young. *Clove* also demonstrates that when the bird is concerned about what is happening in the kingdom, it helps the princess by giving her the clove for mouth hygiene. In *Palm Tree*, humans take all the palm trees that have been chopped and clean the area around them.

The ninth value related to culture is honesty. Honesty includes attitude and behaviour that show good faith, trust and sincerity without expecting anything in return. There are several stories from folklore that are related to this value and culture. For example, in *Leader*, the chicken helps the birds in the forest every morning without expecting anything in return. The character, Biring in *Jalak and Biring* does not expect anything in return when it helps Jalak to realise about its bad behaviour. *Bird of Paradise* portrays honesty when the sparrow takes care of the bird of paradise's young until it begins to fly. The folklore *Palm Tree* also shows that the palm trees

offer their body parts to humans and do not expect anything in return. So is the case in the folklore, *Brilliant Akim*, where Akim helps the villagers and shows good faith, trust and sincerity. Honesty is also seen in *Clove* when the bird helps the princess by giving her the clove and also helps the kingdom to eat the clove for bad breath.

The study is impactful because it shows that courage, physical and mental hygiene and honesty help children in being strong and honest towards others. Children can also be able to identify bad and good behaviour towards others. The results of the study are congruent with the study by Abd Rahim (2014a) which revealed the values in folklore which help build positive values and culture among children.

Hard work, Cooperation and Awareness

The tenth value related to culture is hard work. Hard work or diligence is when a person is full of the spirit of perseverance, determination, persistence, dedication and effort in doing things. Some examples of folklore which showcase hard work are *Bird of Paradise, Fox, Palm Tree, The Stork* and the *Mouse Deer, a*nd *Clove*. In *Bird of Paradise*, the sparrow takes care of the bird of paradise's chick until it can fly. *Fox* and *Palm Tree* show that the characters are hardworking to care for their respective families and friends. The folklore, *Fox* shows that they would go out every night to find food and in the *Palm Tree*, all the palm trees put in effort in growing into heathy trees for humans. In the folklore, *The Stork and the Mouse Deer*, the stork and mouse

deer exhibit hard work when they try to go to the other side of the river with the rice crust. Other than that, *Clove* also shows that the bird perseveres and is determined when it tries to talk to the princess.

The eleventh value related to culture is cooperation. Cooperation is a good and constructive effort undertaken simultaneously at the individual, community, society or country to achieve a goal such as brotherhood, shared responsibility, mutual understanding, liberality and solidarity. The folklore, *Leader* shows that all the birds in the forest have shared responsibility with each other. The plot of *Mermaid* and *Fox* is also interwoven with shared responsibility of looking after each other against any danger. Further, *The Stork and the Mouse Deer* also shows good cooperation between the stork and the mouse deer. The stork helps to go across the river and shares the responsibility with the mouse deer. The character Akim in *Brilliant Akim* helps the villagers in dealing with the flood and shares the responsibility with them. Likewise, *Palm Tree* shows that all the palm trees show their understanding when humans need their parts of the body.

The twelfth value related to culture is awareness. Awareness involves non exaggeration in making judgments and actions whether in thought, speech or conduct that conforms to the norms and values of society. These include simple gestures such as not merely considering self-interest but the interests of others too and not overdoing it in speech and behaviour. In *Leader*, we can see that the birds in the forest are aware of the attitude shown by

the eagle and hawk. *Jalak and Biring* shows how Jalak's attitude makes all the animals scared and makes them aware that Jalak should be avoided. In *Brilliant Akim*, the villagers are aware of the help that Akim has given them and conveys values for the society. P*alm Tree* also shows that the palm trees are aware that their body parts will be taken away by humans but they are content with it since they are able to add value to human life.

The impact of the study is that children will be able to understand the values of hard work, cooperation and awareness. The stories have helped children to practise the values in order to create a positive environment at home and at school. Similar studies also found the same result, such as by Mansor and Abd Rahim (2017) and Rosly, Abd Rahim and Abdul Halim (2016) where values are important to help children in the process of growing up and becoming better persons.

Gratitude, Rationale and Community Spirit

The thirteenth value related to culture is gratitude. Gratitude is the feeling of being thankful and is a behaviour that is born in good faith. In *Leader*, we see that all the birds in the forest are thankful to the chicken that wakes them up every morning to avoid danger from the eagle and hawk. *Mermaid* also shows how the villagers who see the mermaid for the first time, name the place *Mermaid*. They are thankful for the mermaids' existence. *Clove* is also a reflection of gratitude as it shows everyone

in the kingdom to be thankful to the bird since it helped by giving the clove to the princess and also helped the whole kingdom overcome its predicament. In *Palm Tree*, we see that humans are thankful to the palm trees since they offer all the parts of their body for use. *Crow* shows that the peacock is thankful to the crow since the crow painted its body in beautiful colours.

The fourteenth value related to culture is rationale. Rational behavior is when a person can think based on reason and clear evidence and can take appropriate action without being influenced by feelings. For example, the person does not make judgments, can make logical statements and is open-minded about it. *Jalak and Biring* shows that Biring has been rational with the attitude shown by Jalak. Jalak has been mean to other animals and Biring shows appropriate action to help Jalak in realising it. *The Stork and the Mouse Deer* also shows that the stork is rational towards the mouse deer when the mouse deer keeps eating the rice crust. In addition, in *Palm Tree*, we see appropriate action of the palm trees of being open minded with humans taking their body parts. The palm trees are positive about this since they know that their body parts are helpful to humans.

The fifteenth value related to culture is skill spirit. Skill spirit is willingness to do something for the common interest of creating harmony in society such as reaching a consensus, being hardworking and sensitive to the social issues in the community. The folklore that has this value and culture is *Leader*, where all the birds try

to have skill spirit by having a leader for the whole kingdom so that their safety will be taken care of. The folklore, *Fox* also offers insights into the skill spirts of the foxes which go out at night together and find food for their families. Similarly, in the folklore, *Palm Tree*, all the trees support each other by giving positive vibes. This shows that they work together in order to have the skill spirit and will therefore benefit all of them.

The study reveals that the values of gratitude, rationale and community spirit can be seen in the stories above. Children will understand the values and try to use them in their everyday lives. Similar results were found by Abd Rahim, Nik Muhammad Affendi and Awang Pawi (2017), Abd Rahim, Abdul Halim, and Mamat (2014) and Abd Rahim, Abdul Halim, Mamat and Mansor (2016), where disseminating values through folklore will help the process of better understanding among readers and listeners. This way, it will create a new and positive environment among children in the classroom.

Summary of Results

Table 1
Animation according to values related to culture

	1	2	3	4	5	6	7	8	9	10
Kindness		/					/			
Self-reliance	/								/	
Good manners	/	/					/		/	/
Respect	/	/		/	/	/		/		
Affection	/	/	/			/	/		/	
Justice		/			/		/			
Courage	/	/	/			/		/		/
Physical and mental hygiene			/			/				/
Honesty	/	/	/			/			/	/
Hardwork			/	/		/	/			/
Cooperation	/			/	/		/		/	/
Awareness	/	/							/	/
Gratitude	/				/	/		/		/
Rationale		/					/			/
Spirit	/			/						/
Total	10	9	5	4	4	7	7	2	7	10

The numbers 1 to 10, at the top of the table denote 1: Leader, 2: Jalak and Biring, 3: Bird of Paradise, 4: Fox, 5: Mermaid, 6: Clove, 7: The Stork and the Mouse Deer, 8: Crow, 9: Brilliant Akim, 10: Palm Tree.

Table 1 shows the frequency for 10 animations according to values related to culture. Based on the discussion above, it can be seen that *Leader* and *Palm Tree* have the most values related to culture in the storyline or plot (10 values). Both these animations have successfully depicted these values since the values are easily identifiable. Both stories are based on animals and trees. This will therefore encourage children to imagine as if they are actually physically present in the stories. *Jalak and Biring* embodies nine values, which are interwoven in the story between the two roosters. However, the least number of values is seen in the folklore, *Crow*, since the story is merely about two birds that want to paint their feathers. Although, *Crow* has only two values, the animation is interesting to watch since the peacock is popular for its colourful feathers. The folklore, *Bird of Paradise* contains five values whereas *Fox* and *Mermaid* appear to incorporate four values. This shows that *Fox* and *Mermaid* are stories about the origin of these two animals. Therefore, too many values do not really affect the stories. Here, it can be seen that all the values and culture are employed in folklore in accordance with the values constituted in the Malaysian National Education Philosophy (1996).

CONCLUSION

The results above show that values are related to culture whereby values which are integrated into the animation would therefore help the younger generation to understand and use the values in their everyday life. The results also reveal the importance of values in folklore as these will affect the storyline of the animation. The stories will be more interesting and values can be integrated into any activities in the classroom or at home. The results of the study are similar to the study by Abd Rahim, Abdul Halim and Mansor (2017), and Che Yaacob and Abd Rahim (2016), as well as the values found in the Malaysian National Education Philosophy (1996) which have an effect on the community. Moreover, values are also included in most folklore to enhance reading among children at school. The results of this study are also parallel to the study by Abd Rahim, Nik Affendi and Awang Pawi (2017) which found that animation plays a major role in disseminating values through Malay folklore.

This study implicates children or younger generation in appreciating the Malay folklore. Also, this study helps educators in choosing the best and suitable folklore values in teaching and learning. It is hoped that further studies will focus on values in Malay short stories.

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SOCIAL SCIENCES & HUMANITIES

Iranian Medical Students' Perception about Classroom Participation in General English Course and its Grading Criteria

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ABSTRACT

The classroom is considered a social institution in which the social interaction that happens between students and professors in a university setting is of prime importance. Accordingly, classroom participation as an important variable in this setting and pros and cons to grading the students' class participation have been considered to be researched further to answer four research questions regarding EFL students' perception toward: (1) their class participation; (2) the common factors that hinder or encourage their participation; (3) grading or not grading class participation; and finally (4) positive and negative effects of grading class participation. To answer these questions, this study applied a qualitative descriptive research method using a case study to collect data first from 120 medical students through four close and open- ended questions and then through interview with 10 students. The results showed that majority of the students (85%) do not consider themselves as active participants in their English classes, and psychological, physical and teacher factors are regarded as intensives for their class participation while cultural norms, textbook and teacher factors are among the factors that prohibit students' class participation. Furthermore, about half of the students reported that they are indifferent about whether class participation is graded or not because they are not intrinsically motivated to even study English. Pedagogical implications based on the above mentioned findings have been provided for teachers in this article.

Keywords: Class participation, grading class participation, student participation, EFL context

INTRODUCTION

Since classroom is considered a social institution, the social interaction that happens between students and professors in a university setting is of prime importance

because both professors and students bring with them certain understandings of the normative behaviours which are expected of them. One of these normative behaviours expected of students in academic settings is their active participation in class which is believed to foster their learning. What is considered ideal classroom participation? Not long ago this term was defined as asking and answering questions raised in the class; however, today a new version of classroom participation includes the silent form of students' engagement in the classroom experience by listening actively to others' comments (Meyer, 2009, p. 12). Unfortunately, even if silence is regarded as a measure to serve communicative functions, there are still students who prefer to fill in the role of passive participants who occasionally nod, smile or pretend to take notes when they are actually involved in other things. In other words, as teachers, we are usually bemoaning the fact that some students choose to detach themselves from what goes on in the classroom no matter how much we try to solicit participation from them. One possible reason mentioned in the literature is that seemingly students tend to be more comfortable to actively participate in arts and social science courses than natural sciences (Crombie, Pyke, Silverthorn, Jones, & Piccinin, 2003). Since English language courses fall under the category of humanities and social sciences, one may believe that students are more willing to raise questions and offer comments in the class. However, we barely observe this in our classes. So why is participation of students so low and

what hinders the students to actively get involved in their classes?

To answer this, so far many researches have reported various reasons including professors' characteristics and their teaching styles (Fritschner, 2000; Fritschner, 200), class size and class design (Crawford & MacLeod, 1990; Fritschner, 2000), age (Karp & Yoels, 1976), gender and cultural differences of students (Weaver & Qi, 2005), consolidation of responsibility (Karp & Yoels, 1976) and finally classroom participation grading criteria (Meyer, 2009; Rogers, 2011) which is another focus of this study. It is also believed that in high grade-orientation cultures, students tend to value just that part of the course which is graded. According to Bean and Peterson (2002), "When students see that their participation is being graded regularly and consistently, they adjust their study habits accordingly to be prepared for active participation" (p. 33). To further investigate this, the next section of this article reviews opposite views mentioned in literature regarding grading class participation.

LITERATURE REVIEW

Why is Participation Important?

A lot of scholars have emphasised the role class participation plays and the impact it has on students' learning. Various theories in education revolve around this concept such as cognitivist notions of social constructivism and active learning, information processing theory's deep processing, social-interactionists' views of cooperative learning and learning

communities. Based on active learning, it is learners' duty to take responsibility for their learning and that this learning opportunity should be offered by teachers in student-centered learning environment. The theory behind this viewpoint comes from the constructivism theory which stresses on developmental process of learning through social interactions with peers and the teacher. By taking greater responsibility and having greater involvement in the learning process, learners not only develop deeper levels of understanding, but also learn how to take control over their learning (Rogers, 2011). This outcome leads us to the next important theory regarding class participation which is information processing theory (Craik & Lockhart, 1972). Based on this theory, the more meaningful the learning environment is, the deeper the level of processing the information would be. Therefore, it is expected that the information gained in this way would remain longer in the memory and have the highest subsequent retention. For example, in one study conducted by Rau and Heyl (1990), the results showed that students had a better performance on the test material when they discussed it in the group earlier. This, has been supported by another study carried out by Handelsman, Briggs, Sullivan and Towler (2005).

To Grade or Not to Grade University Students' Class Participation

With or without rubrics, some professors at universities allocate range of marks for levels of students' classroom participation because it is believed that this participation

can usually be encouraged by grading policies (normally ranges from 10% to 20% of the total mark for the subject). However, the question of whether or not this participation should be graded has generated two schools of thought.

The opponents of grading classroom participation believe that class participation is more than merely raising the hand and picking out a good seat. They believe that although participation grades might measure the frequency of student participation, they often do not account for the quality of participation and cannot measure cognitive learning (Dallimore, Hertenstein, & Platt, 2013). As Wood (1996) explains, "what is abundantly clear is that a class participation requirement neither promotes participation nor does it effectively measure what a student learns in class" (p. 112). In addition, since participation grades typically fail to actually measure the quality, it is doubtful that participation grades truly result in the type of participation desired by instructors. Furthermore, since grading classroom participation is often subjective, students may consider themselves and their peers as more active in classroom than their professors think they really are (Dancer & Kamvounias, 2005) and this indicates that in college context, students and professors have different viewpoints about classroom participation. Therefore, if not appropriately applied, the use of participation grades may not only possess a potential measurement problem, but also, students may believe the grading criteria is nothing but bias and includes favoritism (Shindler, 2003). This

skepticism about grading the participation of students especially in colleges and universities further comes from Karp and Yoels (1976) who coined the term "consolidation of responsibility" which refers to the norm that in each session only a few students "five to seven" account for most of the interaction that takes place in each classroom (talkers) and the rest of the students are just passive observers (non-talkers) (Karp & Yoels, 1976, p. 429). So is it fair to grade the participation of students in such classes which on top of that may follow the traditional passive instructional delivery still prevalent in many university classrooms all over the world?

Despite the above-mentioned objections, supporters of grading classroom participation believe that it is not really fair to students if they are evaluated based on one or two tests. According to Galyon (2012), it is not rational to give more credit than they deserve to term papers or homework because they cannot be fair indicators of what students have learned. He further condemns this kind of assessment because he believes the systems which subscribe to such evaluation criteria do not pay enough attention to the inequality of standard deviation of both midterm and final examinations if both tests are supposed to contribute 50% to the composite score. Logic aside, others (Carstens, 2015; and Dallimore et al., 2013) believe by grading, teachers can send positive signals to students about the kind of learning and thinking an instructor values, like growth in critical thinking, active learning, development of

listening and speaking skills needed for career success, and the ability to join a discipline's conversation. Dallimore et al. (2013) also believe that when participation is part of grading criteria, students tend to adjust their study habits in order to prepare themselves for active participation in the classroom. Moreover, substantial evidence suggests that students with high grade orientation value only those portions of a course that are visibly graded (Carstens, 2015). Indeed, the ratio of classroom participation allotted in the final grade of students has been found to be effective in students' willingness or unwillingness towards classroom participation (Smith, 1992). Even if this participation is not voluntary, by random cold-calling, students are motivated to become more involved in the learning process (Dallimore et al., 2013). Whether it is part of students' grades or an extra credit, Rocca (2010) emphasises grading students' participation and informing students where they stand in terms of participation midway through the semester. Finally, from the viewpoint of behavioural psychology, Shindler (2003) believes that when classroom participation is graded objectively, even trouble-makers become better students as a result.

Studies on Class Participation

Looking thoroughly through the studies on class participation, we can see that there are a lot of disagreements among scholars as to the grading criteria. For example, in one study conducted by Fassinger (2000), the viewpoints of both students and professors

in 51 college classes were obtained with a questionnaire about class participation. The results revealed positive viewpoints from both students and professors regarding high-participation classes. Although it is not really clear what criteria students referred to when they perceived themselves as active participants, the results showed that active students perceive their professors as more approachable, and more stimulating and find the classroom environment to be less threating. Another interesting finding revealed from this study was that less active students had less positive perception towards their classes and professors than the professors who had much more positive perception about their classes. Similar findings were also stated by Crombie, Pyke, Silverthorn, Jones and Piccininn (2003) who reported that the higher the level of participation of the student, the more favorably he or she perceives his or her instructors' attitude and behaviour. The opposite seems to be true too. There are numerous studies including the ones conducted in Malaysia (Mustapha, Rahman, & Yunus, 2010; Liu & Jackson, 2007) which reported that instructors' trait can have undetected direct or indirect complex influence on students' class participation.

Although these studies did not report anything about the grading criteria which existed at the time the studies were conducted, the question remains here is that whether grading or not grading the class participation would make a difference in students' viewpoints towards their instructors, and the class participation itself. In one study carried out by Howard and Henney (1998), the results showed that despite allocated graded participation system, more than half of the students present in the class were silent throughout the discussion. In another graded participation study, Fritschner (2000) observed 344 class sessions and reported that a small number of students accounted for the majority (79%) of all the students' talk in the class. This, however, is not in line with what Dallimore, Hertenstein and Platt (2004) reported when studying the perception of students regarding class participation when it is graded. In that study, the results showed that if students know their participation is graded, they would participate more in the classes that instructors assign a large percentage of the overall grade to class participation activities. In another study conducted with the same team of researchers a few years later, Dallimore, Hertenstein and Platt (2012) evaluated a classroom strategy that included cold calling and marked participation and reported that cold-calling even expands students' comfort zone in terms of higher participation in the classroom.

Wood (1996, p. 111), however, argue that "we must get away from the false assumption that the amount one learns is directly connected to the amount one does (or does not) talk". She argues that grading classroom participation only motivates over-talkers to dominate the class and does not really help those quiet students who despite everything, prefer to remain silent. Meyer (2009) believe that grading class participation can have

negative consequences for teachers too because the quality of their class would not necessarily improve even if the number of students who participate increases as a result of grading policies. More than grading criteria, Fritschner (2000) believes it is the instructor's verbal and nonverbal behavior (such as facial expressions and voice) that significantly affects students' participation.

Based on whatever has been discussed in the last two sections, it seems that although participation grade can have numerous benefits, its drawbacks should not be disregarded especially when both teachers do not know how to assess it and students do not know exactly how they are evaluated based on their participation (Meyer, 2009).

The Gap

In Iranian setting, like in many other colleges and universities around the world, participation grades are often included in instructor syllabi because active involvement in classroom is believed to be associated with students' higher-order-learning. Despite the promising results active participation might bring about, there are also some Iranian universities in which classroom participation used to be graded in the past. The researchers' informal discussions with some professors of universities suggest that since grading policies were defined neither to teachers nor to students, when it came to that five to 10% that was supposed to be allotted to measure student participation, free pass was usually given to all students. Due to persistence of problems over several semesters, the university authorities withdrew the grading process and voted for not grading class participation at all. Did they really make the right choice? Did students themselves have a say in this decision?

According to Meyer (2009), students' feelings about participation grades are worthy of investigation because if they like being graded, they may be persuaded to engage actively in the classroom. Meyer (2009) continues claiming that there is a strong relationship between student's perception and his or her participation habits. "If, …, students believe they have a right to remain silent in the classroom, they might be more likely to have a silent engagement style [even with the existence of a participation grade]" (Meyer, 2009, p. 14). Accordingly, knowing about what Iranian students think about classroom participation and why they decide to actively participate or remain inactive throughout the class prompted the researchers to conduct this study. Indeed, most studies on class participation were those that evaluated class participation while it was graded. Interestingly, this study is among the first ones from its nature to study students' perceptions about class participation and its grading criteria while the class participation is not even graded. The sampling that this study used was pooled among EFL learners who take English classes as part of their credit fulfillment but none of these classes allocate any marks for class participation. Hence, Iranian EFL students' perception

about classroom participation, the grading criteria and how much lack of participation grade may or may not affect their willingness towards in-class participation is worth investigating.

RESEARCH QUESTIONS

The following research questions were posed:

1) What is the perception of EFL students regarding their class participation?

2) What are the common factors that hinder or encourage students' class participation?

3) Should class participation be graded?

4) What do EFL students think about the effects (both positive and negative) of grading class participation?

METHODS

This study applied qualitative descriptive research method and was conducted at Shiraz University of Medical Sciences in the fall of 2015.

Participants

After determining the target population and referring to Krejcie and Morgan's (1970) table, 120 students were selected through random sampling. Krejcie and Morgan specified the standard and logical sample size based on population size. They specified when the population is around 600, the standard and acceptable sample size should be around 120. Fish and Bowl technique was used to select the samples randomly from among the students in Shiraz University of Medical Sciences. According to this technique, each student receives a unique number and then the determined number of samples is drawn randomly. To do so, the student number was used as the unique number; then 120 students' numbers were drawn randomly. All 120 students were students of Medicine and were 18 to 24 years old. A number of 70 students were females and the rest (50 students) were males. As all of them were first semester students, their level of English proficiency was intermediate. The students were required to obtain intermediate level of English language at National University Entrance Exam if they wanted to be admitted to Shiraz University of Medical Sciences, one of the leading medical universities in Iran.

Instruments

Two close-ended questions (questions number 1 & 3) as well as two open-ended questions (questions number 2 & 4) plus a supplementary interview were designed to enable the researchers to answer research questions one to four. The close- and open-ended questions are as below:

1. If being active in the classroom means asking questions, answering questions and being involved in class activities even if it is in silent form, how active do you think you are in your English classes?

2. What encourages or hinders you to be an active participant in your English classes?

3. Should class participation be graded?

4. If class participation was graded in your English class, how do you think this would affect (both positively and negatively) your performance in and out of class?

Due to the low response rate in answering the above-mentioned questions and to enrich the data as well as to collect supplementary qualitative data, 10 students were also interviewed. The researchers applied convenience sampling in selecting the interviewees. Thus those who tended to participate in interview, were selected. Selection of 10 interviewees is based on the grounded theory methodology which proposes the sample size of 10 to 12 as an accepted sample size for interviewees (Creswell, 1998). All the interviewees were 18 to 24 years old, and were students of medicine while their level of English proficiency was intermediate as determined by National University Entrance Exam. There were six female and four male interviewees who were included in the sample.

Procedure

The researchers collected data from two sources. First, with the permission from authorities, two closed-ended questions and two open-ended questions were presented to students at the end of one of their English classes and 15 to 20 minutes were allotted for them to answer the above mentioned questions.

Subsequently, one of the researchers conducted a semi-structured interview starting with four open and close-ended questions allowing the students to adapt to her commentaries and feel comfortable at the interview. The interviewer began with more general questions about students' number and types of English courses they had previously passed and if they had enjoyed learning English. Then, they were asked four core questions that allowed them to talk about as much as they want. These questions were revised forms of the open and close-ended questions to motivate and encourage the interviewees to provide more complete data and fill the information gap in open and close-ended questions asked before (Nakamura, 2000). The following questions were asked to participants:

1. What does class participation mean to you and do you believe there is value in class participation?

2. How much do you actively participate in your English classes as a whole? Elaborate.

3. What factors influence your level of participation in a given class?

4. What would increase your participation level in class and what do you think prevents you? Elaborate.

The interview took approximately 45 minutes and was audio recorded to prevent any inevitable omission during note taking at the interview.

Data Analysis

After data collection, the researchers coded and analysed each data source separately. All the transcriptions were analysed based on content analysis and were coded thoroughly based on the key concepts, namely, teachers' traits, students' traits, classroom environment, and size of the class. All these concepts emerged from literature review. However, it is worth mentioning that based on the researchers' specified objectives of the interview, narrow transcription was not entirely applied here and the researchers transcribed the interviews at a "very broad level of delicacy" as stated by Cusen (2005, p. 115). After the entire data were coded, all code words were listed and similar codes were grouped; this then enabled the researchers to search for meaningful themes. The researchers extracted the themes and showed their frequency of occurrence through percentage (descriptive statistics).

FINDINGS

In response to the first research question (What is the perception of EFL students regarding their classroom participation?), the results revealed that 85% of the students believed that they were not active in their English classes. Only 10% of them claimed that they were active and 5% of the students said that they didn't really know whether they were active or not. By referring to the interview responses, it can be seen that students are not motivated enough to participate in classroom activities because as one respondent said, "My English is bad, and even if I participate and read the answers of questions, My English is not going to improve". Another interviewee said, "What participation? Most of my friends bring the books of former students to the class and read from those responses. I can also do that, but this is not participation. I let my friends do that". Although it not directly mentioned by any of the interviewees, it seems that the only thing that requires students' participation in English classes is reading through the questions from the book and answering those questions.

To find out more about engagement in class participation, the researchers referred to an open-ended question - What encourages or hinders you to be an active participant in your English classes? The results obtained were three main reasons: (1) psychological factors; (2) physical factors; and (3) teacher factors.

Factors that Encourage Students' Class Participation

Psychological Factor. This factor which encompasses the students' motivational factors has been mentioned in 89 responses (74%). The following are representative comments for this factor: "If teachers memorise our names and call us with their first name, we feel good about wanting to participate more in our classes." Another pertinent comment was:

> "We don't really know our teachers; sometimes we don't even know their names even at the end of the term. It would be great if we go to field trips together, or even sit at

university cafeteria and eat or drink something together. This way we can talk to one another and get to know our teachers better. In that case, I would personally want to talk more with my teacher in the class."

External motivation is another reason mentioned by at least 40 students (33%), although except a few, most of the students did not really mention what type of reward (for example, extra marks, or social reward which includes attention, praise, or thanks) they have in mind to be encouraged to participate more in classroom discussions. For example, a comment by one of the participants was: "It would be great if teachers reward us any time we participate in class discussions; most of our teachers don't really care whether we talk or not."

Physical Factor. The physical layout was mentioned by 65 students (54%) as an important factor for welcoming students who tended to participate more. In descending order "classroom space" was frequently mentioned by the students. One of the comments was "if our classes were bigger and nicer, I would feel more comfortable even sitting in the class." Another student believed that:

"Our class was held in the amphitheater, sometimes we didn't even hear our teacher's voice let alone our friends' comments. I think if English classes were held in a place that we could sit in a

circle, we could see each other and encouraged to talk to each other."

The second important factor mentioned by the students was the number of students in a class. For instance, one comment was: "if, for example, there were 20 of us in one class, I, very much, wanted to participate and get engaged in class discussions", another one said: "if we didn't have so many people in our class, I probably wanted to talk more in my class". And the final factor mentioned was interior design of the class (11 responses) – "classes should look nice, with beautiful paintings or even plants; we don't have anything in our class", or "it would be nice if we had more positive atmosphere in our classes such as flowers, plants and even colourful more comfortable chairs!"

Teacher Factor. Last but not least are factors that attribute to what teachers can do to encourage more class activities (63 responses). The most frequently mentioned factor was teachers' teaching style. Students believed that if teachers followed communicative style, they would be more encouraged to actively participate in classroom discussions. The following comments represent students' voice in this matter: "only focusing on reading skill, doesn't really encourage anyone. We want music, movie, videos, et cetera to be encouraged to even listen to teacher's lecture", "our class is very boring, I guess if the class was fun and our teacher was fun, I personally wanted to contribute more", and

finally "if we had group work, I would be more comfortable participating in group; our teacher never does that". In addition, 63 students thought that teachers are the ones who need to make the lesson more interesting for students, while 25 students mentioned that they need more experienced teachers because they know how to manage class discussions professionally. One comment for example, was: "our teachers are not very experienced. Sometimes teaching us is their very first experience in teaching at university. I guess more experienced teachers knew how to provide better opportunities for students to talk" and another one said, "teachers are key factors in this; an experienced teacher knows exactly what to do."

Factors that Hinder Students' Class Participation

Cultural Norm. It is interesting to note that among all the other factors, 49% of comments (59 responses) were related to cultural norms in participating in class discussions. Many students believed that they don't even know how to voice their opinion both in Persian (their native language) and in English. The following are representative comments for this factor: - "not knowing what to say and how to say it is my major problem." Another comment made was:

> "We haven't been taught how to share our views in public. I guess, that is our biggest problem. We need to be taught!" and "if I talk too

much in the class, my classmates think I am showing off, why?"

Textbook. Another very important factor that hinders students' participation in class is their textbook. Textbook was mentioned by 51 students (42.5%) but this factor can be classified as: (1) the content in the textbook; and (2) emphasis on only reading skill in their textbooks. Many comments represent the fact that ESP textbooks written by university lecturers themselves have not been well-designed to meet students' needs. For example, one participant said, "I want to learn English in order to talk to native speakers; this book doesn't teach me that. I cannot relate to even one of my book chapters", another remark was, "the topics chosen for this book are very boring and old. If topics were more relevant and updated, I would probably get encouraged to search more about it and talk in the class". And others believe that the textbook that is written for reading skill, doesn't really provide an opportunity for students to talk: "Our book has 12 boring reading passages, I don't have any information regarding these topics".

Teacher Factor. Teacher factor was mentioned by half of the students (50 responses) as the factor that has discouraged university students to participate in class activities. These factors have been further classified as the teacher's trait, teacher's teaching style, and teacher's professional experience. Frequent negative teacher traits (40 responses) which were cited were being

impatient, boring, without sense of humor, demotivating, and unapproachable. The following are representative comments for teachers' negative traits:

> "Teachers should allow their students to think and answer the questions asked. Both my teachers in GE1 course and GE2 course always asked the question and answered it immediately. I think teachers never allow us to try to answer any of the questions."

Another related comment was: "Teachers should be motivated enough to encourage us students to participate in class activities. In my class, my teacher was always tired of working too hard. She was just coming to finish the lessons and go" and "what discourages students in the class is teachers. All my English teachers were very unfriendly. They did not know students' names, they don't tell jokes or laugh with us and they just teach, teach and teach".

Instructional pace and teachers' method were also occasionally mentioned to be the reasons that hinder participation (25 responses). Out of the 25 comments attributed to teacher's teaching style, 20 of them mentioned teaching-centeredness as the factor that makes the students passive listeners with an end goal of testing. One of the comments was, "Teachers tell us that we should talk but they are the only ones who talk in the class", or "our class is always quiet. My teacher is the only one who talks!"

Finally, there were also comments regarding instructional pace (five responses):

> "My teacher is always in a hurry to finish the book; we even have to go to make up classes to be able to finish the units assigned. I don't think I am encouraged to talk when teachers constantly tell us we are behind the syllabus."

Another participant said: "The amount of materials that we have to cover is too much. My teacher teaches so fast that even sometimes ask us to keep our questions for after class".

There were several comments (10 responses) regarding teachers' lack of experience and its link to class participation. Of all the responses related to this factor, there were students who had compared their current English teacher with their former English teacher at high school or language center they used to go. For example, one student said:

> "Teachers should be more experienced. My Kanoon [a famous language center] teacher had 25 years of experience and she knew how to make us talk about various topics, but this teacher is young and doesn't seem to know how to handle the class."

This comment was reverberated by another participant: "Lack of teaching experience can hinder class participation; I am sure our class is my teacher's first experience!"

Interview Responses

Although students were asked to explain about the factors that either encourage or hinder their class participation, the comments received on behalf of interviewees were mainly about factors that hindered students' class participation. It is worth mentioning that this can be considered as a limitation of the study because although the interviewer asked the question regarding the factors that encourage students to participate in the classroom, combining two factors in one single question, or asking double-barrelled questions (What would increase your participation level in class and what do you think prevents you?) might have unconsciously led students to talk more about the negative factors that hindered their participation rather than the ones that encourage their participation. As a result, out of the 10 people interviewed, there were only random comments as regard to factors that encourage students' class participation like teachers' teaching style, more interesting books and class activity grade.

Of all the comments provided in the interview about the factors that hinder students' class participation, lack of teaching management and books were the most frequently derived themes. Seven out of 10 students interviewed (70%) believed that lack of time management on the part of their teachers created a major problem not only in giving students a chance to participate in class activities but also in learning the lessons in general. These students believed

that at the beginning of the semester, many teachers maintain a slow pace in teaching but from the middle till the end, teachers teach as quickly as they can to complete what is assigned in their syllabus and keep the course tightly structured. One of the comments for this factor is as below:

> "I don't know why quantity is more important than quality. We have to cover so many units while we don't even have time to grasp and understand many of them. My teacher is constantly worried about us finishing the units that sometimes she forgets we are not English students [students majoring in English like TESL]."

Another comment was:

> "My teacher doesn't ask us many questions. He just goes on reading the paragraphs and calling some names to read the exercises without asking us any specific questions for us to discuss", "…except for the first few minutes before any unit, we do not discuss or answer any questions, except the questions about the meaning of certain words in English or Persian."

Almost all the students (nine out of 10) claimed that the topics included in their books are not encouraging enough for them to inspire them to talk more in class. To describe their books, students

used adjectives like "boring", "tiring", "irrelevant", "removed from our own modern experiences" and alike.

In response to the third question (Should class participation be graded?), 45 % of the students believed that class activity should not be graded, 5% believed it should be graded, and 51% of the students stated that it did not really make a difference for them if their class activities were graded or not. By referring to the students' interview response, it is believed that the most repeated key concept is "stress". Almost all respondents (nine responses) said that they are already under so much pressure from other professors, university staff, and parents as well as a large number of assignments and projects that they cannot handle other types of pressure from their English classes for attendance, class activities and alike.

In order to answer the fourth research question (What do EFL students think about the effects (both positive and negative) of grading class participation?), the researchers referred to both the open-ended questions which the 120 students had to reply in a written form as well as to the interviewees' responses since not many students had written their comments in written form.

Although this question (If the class participation was graded in your English class, how do you think this would affect (both positively and negatively) your performance in and out of classroom?) was placed on students' paper in order to be answered by all the 120 students, only 25 students had written short comments in

this regard. Despite looking for repeated words to come up with themes, the researchers found only a few random positive comments (10 responses) and a few negative comments (15 responses) about grading criteria. The comments that were related to positive outcomes of allocating any grade to class participation were "higher class participation", "better discipline on behalf of students", "better prepared students" and "more attendance". Negative outcomes that would result from grading class participation were "rule-governed system", "poor incentive", "forced attendance" and "poor assessment criteria".

Analysing the interviews, the first theme which emerged was "attendance". However, this theme seems to both positively and negatively be the result of grading class participation. About seven students (70%) believed that the only good effect of grading class participation was that it inspired them to attend all the classes. For more clarification, it is important to note that according to departmental regulations, medical university students are allowed to be absent for only four sessions in the period of 17 weeks, of two classes per week. However, it is often seen that many students at the end of the semester convince their professors that their absenteeism is justified, so trying to understand their students, some professors tend not to be strict about the university's attendance policy. On the other hand, they were 40% of students who mentioned "attendance" as a negative factor that is brought about by grading class participation. One student said, "if

class participation is graded, we have to constantly be worried about our attendance; this causes anxiety for us".

Another theme which emerged from the positive outcome of grading was better preparation on behalf of the students. It was found that six out of 10 students (60%) agreed that if students knew class participation would be graded, they would prepare themselves better before they attended their English classes. For example, one student stated: "My friends and I usually use former students' book to read the exercises in the class if we are called on. If the class participation were graded, I would spend some time before the class to prepare myself for the exercises we do in the classroom". To clarify, we should add that, unfortunately, it is not compulsory for the students of this university to buy a new book. Hence, it is often seen that many students use their friends' used books which contain written answers of all the exercises and the English or Persian meanings of the vocabularies can also be seen all over the books.

DISCUSSION

As regard to the first research question the results showed that most of the students do not perceive themselves as active students in their English classes. This result is in line with Karp and Yoels's (1976) study which reported that only about 10 out of 40 students participated in class discussions, and typically, just five dominated discussions. This lack of participation in English classes could be resulted from students' lack of motivation for learning English. One reason for this, especially for Iranian learners, may be the fact that they start learning English since junior high school, if not in early ages at private English institutions. Nevertheless, after all these years, many still cannot even handle the simplest English conversations. This as a result may lead to loss of motivation to learn English by the time they enter the university (Khojasteh, Shokrpour, & Kafipour, 2015). Ryan and Deci (2000) believe that when students lack enough interest in learning, they are unable to produce high academic achievement and long-term retention of what they have learned.

Another factor which was revealed from interviews with students is that many students do not even know what active participation really means. Based on their reports, many think that reading the answers of questions from the textbook is participation. This can be attributed to the fault of teachers who sometimes assume that students already know how to participate and how much participation is enough for them to be graded (Meyer, 2009).

The results of second research question showed that among the factors that encourage students' participation, we can point to psychological factors such as knowing students' names, having more approachable teachers and enhancing their external motivation. The above mentioned factors can have other positive effects on students' participation which have been reported by other similar studies such as Dallimore et al. (2012) and Fassinger

(2000). In another study conducted by Mustapha, Rahman and Yunus (2010) in Malaysia, the results showed that teachers who are encouraging and approachable can positively affect students' participation in class. With regard to memorising students' names and its association with better class participation, the result of this study is in line with that of Herzig's (2002).

Physical appearance of the class was another factor considered effective by the students in encouraging participation. This link has been verified by various previous studies conducted in different countries all over the world such as the United States (Meyer, 2009), China (Peng, 2014), and Pakistan (Suleman & Hussain, 2014); all these studies came to the conclusion that classroom physical environment has a significant effect on students' academic achievement. According to Suleman and Hussain (2014), students who feel more comfortable in their learning environment can better retain information from class discussions. Seating position, classroom design, density, privacy, noise, and the presence or absence of windows are the factors that have been mentioned as integrating or mitigating factors on students' behaviour, attitudes, and achievement (Meyer, 2009). It is also stated that by changing the classroom physical environment, students' disruptive behaviours can be minimised (Gaurdino & Fullerton, 2010). The positive association between appropriate class size and opportunity of interaction and participation has also been

emphasised by Howard, James and Taylor (2002).

The third factor that was considered encouraging to class participation by the students is the teacher factor. While boring, dry and unconvincing teaching style are discouraging, encouraging teaching style enhances students' reflective thinking and problem solving skills which eventually lead to better retention and better grades. Another teacher factor that encourages student participation is having experienced teachers. This has been supported by a study conducted by Doganay and Oztürk (2011) who did a comparative study between experienced and novice teachers. The results revealed that experienced teachers use more metacognitive strategies in class which accordingly can have positive effect on students' class participation.

Regarding factors that discourage student participation in the classroom and cultural norms, textbooks and teachers, yet again, can be mentioned. According to Girgin and Stevens (2005), students who come from non-participatory cultures are reluctant to participate in class discussions. This as well as language factors are major reasons behind Asian students' unwillingness in class participation (Nataatmadja, Sixsmith & Dyson, 2007). Nataatmadja, Sixsmith and Dyson (2007) stated that "most Asian countries have large class sizes: if the students ask questions in class, the lecture would not finish on time, and therefore the instructor prefers students to discuss any issues that they have after class" (p. 74).

Insufficient English proficiency was another factor mentioned hindering students' verbal participation. This has been supported by many studies including Davison and Trent (2007) and Gyungsook (2014).

Textbook was another factor that was mentioned by many students discouraging their class participation. Apart from presentation of materials and textbook layout, suitability of materials for different learning styles, appropriateness and authenticity are among the factors that motivate students to learn (El-Sakran, 2012). For an English textbook, Deuri (2012) believes subject matter should be based on students' environment, psychological needs and interests.

The results of this study demonstrate that while positive teacher traits can encourage students' participation in class, negative teacher traits can negatively correlate with participation. Teacher's experience and strategies he or she adopts to foster effective participation plays a fundamental role in encouraging students, especially Asians (Nataatmadja, Sixsmith, & Dyson, 2007). In fact, according to Gorham and Christophel (1992), "motivation is perceived by students as a student-owned state, while lack of motivation is perceived as a teacher-owned problem" (p. 240). Teacher's verbal and non-verbal behaviour has also been reported by Fritschner (2000) to have a significant effect on students' degree of participation in class. Even sometimes teachers' own lack of motivation and job dissatisfaction might lead to demotivated students (Hekmatzadeh, Khojasteh, &

Shokrpour, 2016). Furthermore, it is stated that teacher's lack of knowledge and teacher-centered teaching style are limiting factors to students' participation (Fritschner, 2000). Equally true is the fact that impatient teachers who are specially facing crowded classes seem to have shorter "teacher wait-time" which this results in teachers who immediately answer their own questions before giving their students enough time to think and respond. Indeed, it has been proposed in the literature that students are reluctant to participate in classes where the teachers wait "no more than a few seconds" to answer the questions asked in class (Fritschner, 2000, p.356).

The result of this study also show that lack of teachers' time management skills and instructional pace can deter class participation. While moving along too slowly can be boring and distracting for students, moving along too quickly can also be discouraging because students may feel defeated and unchallenged. So, it is fundamental to align instructional content to match learners' skill levels.

Considering the third research question (Should class participation be graded?), the result of this study show that 45% of the students believe that their class activities should not be graded while about half of the students do not even care about whether their participation is graded or not. As it was mentioned earlier, "stress" is repeated as one of the main reasons why students are reluctant about the idea of graded participation. University students today experience high levels of stress in many

areas of life due to poor sleeping and eating habits, academic pressure, full schedules and many more. According to Behere, Yadav and Behere (2011), some medical students experience stress in such level that needs medical interventions. Students should then adopt active coping strategies instead of avoidance and they should receive consultation on how to manage and cope with stress (Al-Dubai, Al-Naggar, Alshagga, & Rampal, 2011).

Finally, the results of the fourth question (If the class participation was graded in your English class, how do you think this would affect (both positively and negatively) your performance in and out of classroom?) reveal that improved attendance and better preparation are the positive aspects university students relate to when it comes to grading class activities. At the same time, some students believe that attendance can be a daunting factor if class activities are graded. In either case, we can conclude that students seek external factors in order to force themselves to sit in their English classes. Indeed, it refers to external motivation. If students are not instrumentally motivated, they will not continue attending classes unless they find them sensible and practical. This implies that the participants of this study are not entirely aware of the rationale as to why attendance is necessary. Moreover, it implies they do not find classes useful and fruitful to be encouraged to attend classes regularly. Therefore, it is important that instructors change their teaching strategies and styles to make students interested in English classes.

Ideally, teachers can interactively motivate students; this leads learners to maximise achievement. Therefore, teachers should try to instrumentally motivate learners to give them a tangible reason to attend classes.

Although the researchers of this study thought grading policies can motivate students to be more involved in class activities, the results of this study show that students who don't like to participate in class will still remain silent even if grading is proposed to encourage better participation (Fritschner, 2000). So according to Meyer (2009), if participation grade is implemented for such students, they will be more disadvantaged because they probably employ silence regardless of the grades associated with participation. Therefore, other motives should be considered apart from grades.

The results of this study also show that 85% of our students do not assume themselves as active participants in their English classes. Since they are more or less reluctant to be graded for their class activities, it can be concluded that this result doesn't support the association between grading class participation and higher student motivation, as asserted by Rattenborg, Simonds and Hunt (2005). This is also in contrast with the link between using participation grades and more frequent participation from a greater number of students proposed by Dallimore et al. (2012).

Hence, based on students' remarks, there are other measures that need to be considered to encourage students for more participation.

For example, smaller class enrolment, better classroom environment and physical appearance, appropriate instructional pace, discussion-based instructional methods for creating more participation opportunities, more communicative textbooks, are a few pertinent considerations. It is also important to culturally know our students because some students, like the ones in this study, come from cultures that simply value silence in the classroom. So for these type of students, Balas (2000) suggests instead of monopolising the discussion, it is best to utilise small group activities to facilitate speaking in class.

CONCLUSION AND IMPLICATIONS

The results of this study show that most students do not perceive themselves as active students in their English classes due to physical appearance of the classrooms, textbooks in use, , and the characteristics of teachers and their teaching styles. It is interesting to note that although it seems that the participants of this study looked for external motives to increase their tendency for class participation, about half of these students reported that they would not prefer graded participation to be applied in their English classes. According to them, this would add another hurdle to many other existing problems they face in their academic life.

Given the pros and cons to grading students on class discussion, EFL teachers should consider two important points. First, the students who are active in class are not necessarily the most attentive students in

class discussions; sometimes, they talk to impress their teacher. Furthermore, the shy students usually don't speak up in class. Therefore, if the teachers plan to grade class participation, they should probably make their expectations clear to students. They need a rubric that defines the elements of quality class participation including attentive listening, preparation before class, and comments based on discussions. It would also be useful for teachers to help students distinguish between speaking a lot in class and participating in a meaningful conversation. EFL teachers need to clarify the grading policies, standards, criteria, timeliness, consistency, and grade disputes. to the students of the course so that these students are adequately aware of what is expected of them for real participation in class. We also need to include grading policies, procedures, and standards in the syllabus and distribute the grading criteria to students at the beginning of the term and remind them of the relevant criteria. According to Ko and Rossen (2017) whatever participation activities (such as contributing to discussions, answering and asking questions) are going to be included in the final grade of the students, teachers should explicitly explain and elaborate these in the syllabus, and make them known to students at the beginning of the course. Finally, it is important not to consider grades as the only motivation to encourage students to attend class actively as it will not work definitely for all students. Although previous research found class participation difficult to assess, hence, even if graded participation is implemented, assessment

experts who support fair and reliable scoring of any criteria should devise the rubrics to overcome the problems of teacher bias and unfair penalisation of less vocal students especially in countries like Iran, where students have proficiency issues and need more time in organising their thoughts. It is also important to apply an assessment policy that actually evaluates students' learning and not students' behaviour in terms of frequency of participation. In summary, McDonald's (2017, p. 311) contention that "it is unfair to grade a student on what could very well be a personality issue" holds true.

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SOCIAL SCIENCES & HUMANITIES

The Shadow Worlds that Run Parallel to the Real World: Deleuzian Time-Images and Virtualities in Paul Auster' *Sunset Park*

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ABSTRACT

The present paper studies Paul Auster's *Sunset Park* from the Deleuzian perspective. Gilles Deleuze in his books on cinema introduces his theory of metaphysics of imagination through which he analyses images of past as well as the crystal-images in the perceiver's [character's] memory. Accordingly, the paper looks for new ways to apply Deleuze's analysis of cinematic images on literature. Such analysis enables us to study the mentalities of Auster's characters' in terms of their relationship with their past memories, and their rejoining of the society after a self-inflicted exile. As such, Deleuze's treatment of the images of the past through the crystalline narrations and flashbacks will be used to analyse the past mindsets and memories of Auster's characters. The findings will ultimately show how these Deleuzian concepts can work as a new arena to critically evaluate literary works in terms of the role of images of the past and virtualities in creating evolving fictional storyworlds, using Paul Auster's *Sunset Park* as the tool for analysis.

Keywords: Paul Auster, Gilles Deleuze, sunset park, time-images, crystal-images, virtuality

INTRODUCTION

Paul Auster's *Sunset Park* (2011) recounts the story of the alienated New Yorker Miles Heller, his torn-apart family, and a bunch of unfortunate youngsters during the collapsing world of economic ruin and relentless, ever-expanding hardship of the late 2010s. Miles is "twenty-eight years old, and to the best of his knowledge he has no ambitions" (Auster, 2011, p. 4). He is also severely traumatised by an accident that had claimed his brother's life; therefore, his guilt-ridden memory hunts him by various

levels of the images of the past. However, the main themes of death, abandonment, and time-images of the past are the ones that recur frequently in the novel. While each character is treated through a separate and sometimes overlapping story, the common thread among all their accounts is Miles Heller whose life has been affected socially, economically, and spiritually. Three years after Bobby's death, Miles, a 21-year old student back then, had abandoned college and a promised future to live in self-exile and away from his family and his nightmarish past. Now after seven years of living a life, and forced by events which have threatened his relationship with a Hispanic girl he is planning to marry, he finds no choice but to come back to New York and to join a band of squatters who have illegally occupied an abandoned wooden house in Sunset Park, Brooklyn. Miles' subsequent reunion with his parents is mediated through his confidant friend, Bing Nathan, with whom and two other friends he shares the joy of living in a metropolitan Walden. On the other hand, while everybody's life has been disintegrated by the financial recession and the cultural gap between generations, one can find Renzo Michaelson, Miles' godfather, an exceptional character who can think beyond actualities and everyday problems. Renzo believes that his mind is occupied with virtual and potential ideas, even those "things that don't happen" (2011, p. 153). Renzo is a novelist, who mirrors Auster's longing for virtualities by brooding over impossible turns of the past events through what seems to resemble certain types of Deleuzian time-images.

Renzo's philosophical contemplations that encompass the issues of time and causality might be better analysed through Deleuze's notion of crystal-image. Having applied Deleuze's metaphysics of imagination on this occasion, along with diagnosing Miles' frequent flashbacks to his troubled memories and Bing's longing for the past with Deleuzian lens will be extrapolated in the forthcoming sections of this paper.

THEORETICAL ASSUMPTIONS

To understand Deleuze' transcendental-empiricism, or his middle stance between actual and virtual sides of philosophy, it would be beneficial to refer to the term intermezzo. David R. B. Kimbell in his *Italian Opera* (1991) suggests that "between 1700 and 1750 the Intermezzo was so popular" (Kimbell, 1991, p. 303) in the classic Italian opera; the term actually referred to an "interlude" (1991, p. 166) or a piece that used to be played between two musical acts. Deleuze and Guattari who are famous for their clever borrowings, have made use of this Italian term to facilitate their philosophy. "Intermezzo" or inter-being is all about reconciliation and "to get outside the dualisms" (Deleuze & Guattari, 2005, p. 277). Therefore, one can say that Deleuze's paramount legacy stands between the above two opposing established schools of thought. Such is his reconciliation between the truth and the self, as the centers of traditional transcendentalism and empiricism respectively. Intermezzo is also the key to understand the incorporeal materialism through which Deleuze

unites the distinct and the indiscernible, the abstract and the concrete, as well as the actual and the virtual. Now, one can argue that the most interesting upshot of such worldview is evident through Deleuze's treatment of images, where he discovers both the actual and concrete images and the virtual ones in all the levels and classification of his metaphysics of imagination. Consequently, such an image that bears the dual characteristics of actual and virtual would be called time-image. As this paper endeavours to show this, various forms of such Deleuzian time-images could be found in *Sunset Park*. These instances are used to convey the dual nature of characters' longing for their unfulfilled past. This duality is the inherent nature of time-images because they represent Deleuze's transcendental-empiricism. As Trifonova (2004) notes, time-images mark "the end of representation" and "the annihilation of both subject and object" (2004, p. 135) to prove Deleuze' intermezzo between transcendentalism and empiricism. Therefore, we can argue that time-image and, in a general scale, Deleuze's metaphysics of imagination as a whole derive from his general transcendental-empiricism.

To expand and at the same time apply this general worldview, Deleuze draws on the role of cinematic images in shaping literary descriptions in the modern age. Cinema has invariably and permanently changed our view of life. Thus, on the basis of his project of altering philosophical concepts through studying new phenomena, Deleuze has done a detailed study of classic and modern cinema, published as two influential books respectively: *Cinema I: Movement Image in 1986*, and *Cinema II: Time Image, in 1997*. The latter could be a valuable source for studying the imagery of the past and the portrayal of time through the chaos in which postmodern fiction is living. Nevertheless, as Auster seems to have made intricate use of modern cinematic imagery in his last novel *Sunset Park*, it appears beneficial to draw on some of Deleuze's main arguments regarding his metaphysics of imagination or simply put, his treatment of images.

Deleuze's transcendental-empirical worldview leads him to draw on the relation between the actual and the virtual in his treatment of images. For this purpose, as the present or actual descriptions along with descriptions about the past which add a virtual condition to the actualities of our concrete world, create a circuit between actual and virtual images. Such duality of actual and virtual descriptions is among Auster's narrative techniques in *Sunset Park*, insofar as the characters' minds become the subject of wrestling between various forces from their past or their present environment. This situation, according to Deleuze, rubs the stories off their "causality and linearity" and paves the way for them to "go beyond themselves in destiny" (Deleuze, 1997, p. 49). Interestingly, Auster's novel can be a good example for such Deleuzian "inexplicable secret" of destiny and the "fragmentation of all reality" (Deleuze, 1997, p. 49). Therefore for Deleuze, the most authentic source of virtuality resides

in pure recollections which are "summoned from the depth of memory" and "develop into recollection images" (1997, p. 54). Having surveyed these two forms of images which he tends to call "time-image" (1997, p. 68), we can see how Delezuian theories when applied on *Sunset Park* can treat Miles' never-ending nightmares of the accident that took his brother's life. To this end, it is valuable to note that Deleuzian time-images share one main characteristic: in all of them the circuit or passage between the actuality and the virtuality forms a kind of flashback. In this sense, the actual and the virtual run after each other, and the present fades into the past with either a normal or a slow pace. However, the advance generation of time-images, emerging with the rise of modern times, is completely different, whereas the earlier forms "the broad circuit of recollection in dream" (Deleuze, 1997, p. 68) incorporated "flashbacks" and pure recollections as a whole, the new kind of time-image is born out of a "short circuit" between actualities and virtualities This "very specific genre of description" is formulated in a way that "instead of being concerned with supposedly distinct object, constantly both absorbs and creates its own object" (1997, p. 68). This project is the "key or rather the heart of" Deleuze's treatment of images in the modern era and is called "crystal-image" (1997, p. 69). It is worthwhile here to notice Deleuze's own explanation:

> We have seen how, on the broader trajectories, perception and recollection, the real and the imaginary, the physical and the mental, or rather their images, continually followed each other, running behind each other and referring back to each other around a point of indiscernibility. But this point of indiscernibility is precisely constituted by the smallest circle, that is, the coalescence of the actual image and the virtual image, the image with two sides, actual and virtual at the same time … when the actual optical image crystallizes with its *own* virtual image, on the small internal circuit. This is a crystal-image … (1997, p. 69)

Therefore, in such "crystal-image or crystalline description" we witness that "each side is taking the other's role in a relation which we must describe as reciprocal presupposition, or reversibility" (1997, p. 69). Such "mutual images" (1997, p. 69) remind us of both the incorporeal or the virtual and the actual or the material sides to a crystal-image. Hence, it can be argued that since the crystal-image is evolved between those planes of material and immaterial descriptions, the crystalline descriptions are among the narrative parts which one can transparently come across in a number of times in *Sunset Park*.

DISCUSSION

Time-Images and Virtualities in Paul Auster's Sunset Park

When Auster's *Sunset Park* opens, Miles is residing in South Florida, trashing out

foreclosed and deserted houses, and getting rid of the things left behind when the residents were evicted. Unlike his thuggish colleagues, who help themselves to anything of value, we find Miles Heller sentimentally photographing anything he finds in the abandoned houses. It seems that:

> He has taken upon himself to document the last, lingering traces of those scattered lives in order to prove that the vanished families were once here and the ghosts of people he will never see and never know are still present in the discarded things strewn about their empty houses. (Auster, 2011, p. 3)

Miles' reference to the ghosts of people which are to be found in the abandoned things is somehow an evidence for his inclination toward virtual affinity. The furniture and the appliances he finds in the evacuated houses are not of material value to him, or at least their material appearance is not the center of his attention. Evidently he is able to think beyond the actuality of their existence, to think about incorporeal materialism. According to Lawley (2005), "the virtual is a present that cannot be captured by representation" (2005, p. 38). To think of the virtual is thus to think of the past. Miles truly recognises that his photo taking is a pure virtual gesture, "an empty pursuit, of no possible benefit to anyone", because no material convenience will come out of it. Yet he does not know why "things are calling out to him, speaking to him in the voices of the people who are no longer

there, asking him to be looked at one last time" (Auster, 2011, p .5). Possibly he is searching for the images of the general past, a "whole temporal panorama, an unstable set of floating memories, images of a past *in general* which move past at dizzying speed, as if time were achieving a profound freedom" (Deleuze, 1997, p. 55). For Miles, such general presence of the past is felt due to the virtual ghosts of the absent family members to whom he will never find the chance to be introduced. Therefore, in Deleuzain terms, Miles's photography is about capturing the fragments of the liberated time, somehow bringing the past into the present. Yet the same effect of time facilitates the representation of social consequences of the economic recession. As the houses of the bankrupt families were evacuated by force, they didn't have sufficient time to pack and thus left in a hurry. At this point Auster's concern for the plight of the contemporary American society takes a larger-than-life turn, staging itself through virtualities. In this regard, Kukuljevic (2005) reads Deleuze's virtual as part of the real which "is not given in experience, but it is that by which experience is given" (2005, p. 145). Therefore, since the Deleuzian virtual is preceding the actual and experience, Auster refers to the magnitude of the modern predicaments with respect to their virtual status. He accordingly uses metaphors to convey this issue, as Miles concludes that not "the most circumspect removal can erase the stench of defeat" (Auster, 2011, p. 5). Miles is right to some extent. One might not be able to cure death,

abandonment, and such pure virtualities with actual means. This brings to mind Lyotard's concept of *différend*, the fact that sometimes justice cannot be done and discourse is unable to present any remedy or solution. The silence of discourse in its Lyotardian implications could be paralleled with Deleuze's profound liberation of time through the narration of the general past. When the past is gone too far, no present action can help rectify its consequences, or in other words, virtuality becomes so pure that "it does not have to be actualized" (Deleuze, 1997, p. 79). As such, nothing can simply fill the broad circuit or the gap between the actual and the virtual, between the general past and the present. What then remains would be a deep sense of nostalgia and despair. That is why Miles wants "his pictures - not things, but the pictures of things" (Auster, 2011, p. 6). Only pictures can capture a singular moment and tell Miles about the lost actualities, the defeated families, and their current miserable lives.

Yet Miles' sensitive attention to the past, in general, somehow originates from his deliberate deviation from a particular moment in time: his own past. He has decided to propose marriage to Pilar Sanchez; however, he has vowed to tell her "next to nothing about himself". This shows the depth of his alienation from his earlier life. "Least of all does he want her to know anything about his stepmother Willa Parks, who married his father 20 months after the divorce, and nothing, nothing, nothing about his dead stepbrother, Bobby" (Auster, 2011, p. 16). As Auster stresses the secrecy

of the events surrounding Bobby, the reader gets more curious to know about it. Bobby, Willa's only child from his previous marriage to late Karl Bergstrom, was his younger stepbrother. About 10 years ago, while Miles and Bobby were walking on the shoulder of a deserted road in the country, they started a regular dispute, the kind of shouting and slapping that adolescent boys are familiar with. Bobby was walking on the side of the road and when he said a bad thing to Miles, he pushed Bobby in anger, making him fall on the ground. The road was clear but suddenly before Bobby could get up, a truck came down the turn and ran him over. "Even now", Miles "can't be sure if he did it on purpose or not" (2001, p. 17). And the precise thing that has made him alienated from himself is that "he doesn't know if the push came before or after he heard the oncoming car, which is to say, he doesn't know if Bobby's death was an accident or if he was secretly trying to kill him" (2011, p. 17-18). Such are the complexities of Miles' past. The suspension of justice is apparent here too. And because the actual has been eliminated and Bobby is dead, all that remains is a strong sense of guilt, a pure virtual condition that is strong enough to push Miles out of the track of his life for years – in isolation, wandering like a Deleuzian nomad around the country, running away from his actual life because he does not "know if he heard the car coming toward them or not". For Miles "it seems certain that Bobby didn't hear the approaching car, or he wasn't concerned by it, … But what about you?

Miles asks himself. Did you know or didn't you know?" (Auster, 2011, p. 25). So Miles' virtual journey begins with this simple question. Therefore as Auster sketches out the structure of his storyworlds in his 2008 online audio interview, it seems that Miles' inability to answer the above decisive question makes him "hop off the tracks of reality" and start "living in a parallel world" (Miller & Auster, 2008). In other words, Miles' real journey has been to graduate from college and to possibly start work as a literary agent in his father's publication house, yet his alternative life has ended up in being a simple worker with no degree and no plans or ambitions. But since there is no remedy for the ambiguities of the past, what remain for him are painful flashbacks which he decides not to share with Pilar.

Now "it is 2008, the second Sunday in November" and Miles and Pilar are going to "grasp the Dickensian spirit", searching for "odd and amusing names" through "the baseball encyclopedia" (Auster, 2011, p. 31). Baseball has always had a special place in Auster's stories, and in *Sunset Park* the reader often comes across the real names of the stars of 1940s to 1960s who have been exemplary pitchers in the American Major League of Baseball. A few days later, Miles learns about the death of one of his childhood heroes: "On the eleventh, he reads in the paper that Herb Score has died" (2011, p. 32). We can argue that the metafictional technique of bringing real names into the fictional storyworld is a kind of adding an actual dimension to a virtual space which can have the effect

of a Deleuzian time-image. However, the incident of Herbert Jude Score's (1933-2008) death recurs again through the story and Auster uses these occasions further to mix actualities and virtualities. A lengthy report of Herb's bad luck, the series of injuries and misfortunes which ultimately took this Cleveland Indians player's life, is among Auster's rare developments of the characters that are considered external to the main story line. Moreover, Score's account is noteworthy, since we will learn that he has been the subject of many childhood discussions between Miles and his father. One can thus treat him as a symbolic icon of their relationship. But now that Score is dead and Miles has not seen his father for the last seven years, for a second he is compelled to call him and "chat with him about Herbert Jude Score and the imponderables of fate, the strangeness of life, the what ifs and might-have-beens, all the things they used to talk about so long ago …" (Auster, 2011, p. 34). Such a call never comes true and the son meets his father a few months later in Brooklyn. However, the significance of their regular discussions about fate, "might-have-beens", and "what ifs" will extend through the story. Obviously, all the possible impossibilities of fate are connected to the notion of time in one way or another, and since such possible turns of fate have never happened, they belong to those virtual conditions of the plane of reality which have never found appropriate differentiation to be actualised. Such are the virtualities Auster frequently refers to: the imponderables of fate. As Deleuze

favours the term "potentiality" (Deleuze & Guattari, 2005, p.142) over possibility, we can add that virtualities are actually unthinkable because they have stayed as potentialities but have never found the chance to be materialised. But contingency does not always show its ugly face, and when Miles observes that Score's story is making Pilar sad, he changes the subject to New York Giants' Jack Wayne Lorhke (1924-2009), nicknamed Lucky, whose frequent escapes from deadly accidents had made him famous. "Lucky, is the mythic embodiment of a theory of life that contends that not all luck is bad luck" (Auster, 2011, p. 35). Miles suggests and adds: "Think of the odds Pili. Death comes looking for him three times, and three times he manages to escape" (2011, p. 36). Thus, either good or bad, contingency is one of Auster's regular themes based on which he often introduces his virtualised accounts of his characters. Later again, the fictionalisation of virtualities through recounting the actual stories of baseball players returns to spotlight when Miles is invited to the Sanchez' for dinner. Having being introduced to one of Pilar's relatives, Eddie Martinez, "in the aftermath of Herb Score's recent death, they fall into a conversation about the tragic destinies of various pitchers from decades past" (2011, p. 41). Expanding their evaluation of the baseball players, they start talking about the sad story of the late California Angels' relief pitcher Donnie Ray Moore (1954-1997). Miles "can still remember the stunned expression in his father's eyes when he looked up from his newspaper at breakfast twenty years ago and announced that Moore was dead" (Auster, 2011, p. 43). In the decisive match of October 12, 1986, while Angels were about to win over Boston Red Sox and enter the world series, "Moore delivered one of the most unfortunate pitches ever thrown in the annals of the sport" (2011, p. 44), and led to Angels' defeat. Afterwards, humiliation and psychological pressure on Moore increased and made him retire early in 1989. A few months later he shot himself dead. Moore's story is somehow significant insofar as Miles and Eddie would compare it with the life of Brooklyn Dodgers' Ralph Branca (1926-2016) who had made a similar humiliating pitch but had never gone desperate. Instead, he had kept his spirit up. The comparison between a desperate baseball player and a cheered up one presents us with the fate of an introvert versus that of an extrovert. While Moores' obsession with his defeat signals a transcendental gesture, Branca's indifference toward his bad luck and the continuation of his social appearance can reveal his empirical worldview. Despite the mirror Moore's desperation creates for Miles' guilt-ridden mind, by juxtaposing these two accounts, Auster seems to tell us to what extent transcendental-empiricism can be a remedy for the predicaments encircling modern humankind. Again, here we can recall the virtual questions. What if Miles had not fled from home, and like Branca had tried to cope with the disaster? We are again subjected to the suspension of justice and a long silence in response. That is why Miles has been silent for the

last 10 years, and cannot even tell Pilar about his troubled past. Miles might not have attempted to commit suicide like his mirror character Moore, but still his self-exile is nothing less than self-destruction. Fortunately, Miles' story has not ended yet and as we move on, he is coming out of the shadows of virtualities. His decision to join the Sunset Park squatters and a later reunion with his parents can be regarded as his attempts toward the actualisation of his repressed capabilities.

The same night, Miles hears that sergeant Lopez, Teresa's husband (Teresa is Pilar's older sister) has been in service in Iraq for the last 10 months and everybody is praying for his safety before meal. Hearing this, Miles suddenly gets immersed into virtualities again. What if Bush and Cheney would have been executed and no war could ever happen in Iraq? Lost between actualities and virtualities he is creating for himself as time-images, Miles

> Looks down at the table cloth again … He imagines George Bush and Dick Cheney being lined up against a wall and shot, and then for Pilar's sake, for the sake of everyone there, he hopes that Teresa's husband will be lucky enough to make it back in one piece. (Auster, 2011, p. 46)

This again reminds us of Auster's famous audio interview with Faber's George Miller in November, 2008, in which Auster argued that Bush's era created a parallel world for the Americans and that their actual world should have been one without any wars

and economic depression. Similarly, the virtual call for Bush and Cheney's execution also resonates with Owen Brick's story in Auster's *Man in the Dark* (2008), in which two different Americas lived parallel to each other, one in peace, and the other in conflict with the world and burnt inside with a huge civil war. Therefore, while Auster's time-image has regularly covered particular cases, this time it enters the realm of crystallisation of time through a universal reciprocal presupposition by referring to Iraq war. It is not just the personal images of the past which have differentiated *Sunset Park* from other contemporary novels, but the diversity of such images has made it an exemplary case for studying Deleuze's metaphysics of imagination. Moreover, while the first observation is that Moore's story of guilt and suicide mirrors Miles' own retreat from the past, it seems arguable that they form the image of an interwoven mirror. This type of narration thus falls within the category of "work within work" (Deleuze, 1997, p. 77), which has a striking significance in Deleuze's treatment of time-images. For Deleuze, when two crystalline descriptions are mirroring each other and especially when one contains the other, they have to be treated as a special "mode of the crystal-image". Such interwoven narration of crystalline descriptions "has often been linked to the consideration of a surveillance, an investigation, a revenge, a conspiracy, or a plot" (1997, p. 77). And in the case of Miles and Moore, we can argue that their crystalline narration falls within the category of frame stories, helping the

main crystal-image to link itself more efficiently to the main plot of the story. In simpler words, Moore's account empowers the portrayal of the desperate situation of Miles' story and helps the reader to see another dimension of alienation from the self, a fact bringing Miles seven years of retreat and making Moore commit suicide.

But crystal images can sometimes be deceptive too. In the other parts of the novel, as Miles is sitting on a bus, travelling from Florida to New York, he recalls the memory of a conversation with his father, in which he explained to him the account of his marriage to his mother and their subsequent divorce. It all started when Morris saw one of Mary-Lee's performances as Cordelia in Shakespeare' *King Lear*. "He was blinded by her talent, his father continued. Anyone who could perform as she had in that demanding, delicate role must have had a greater depth of heart and a wider range of feeling" (Auster, 2011, p. 58). But what Morris had actually seen was just an intricate image within another image; in fact, a crystal situation had deceived him which was followed by a wrong marriage. "But pretending to be a person and actually being a person were two different things" (2011, p. 58). Therefore, Morris obviously marries Cordelia, who is a virtual condition of Mary-Lee, but a few months later he realises that the actual woman is someone with a different personality. Thus, Cordelia's image in Morris' memory can be interpreted as a crystal image which has entrapped both the actual image of Mary-Lee and the virtual image of Shakespeare's dramatic

persona. Therefore, Morris, infatuated with the real distinction between both sides of this mutual image and confused with their indiscernibility, finally vows to marry Miles' mother. But the image becomes clear after a few months, and when the crystal shatters from inside, they discover their deep differences and eventually divorce when Miles is only six months old. Then Willa comes into the picture and although she proves a caring stepmother for Miles, the absence of his real mother marks its excruciating effects on his soul.

Now that Miles has moved to Sunset Park, other characters' stories become the locus of the novel as well. Bing Nathan is the leader of the group and his contemplation about the value of the past is related to the notion of the virtual:

> He takes it for granted that the future is a lost cause, and the present is all that matters now, then it must be a present imbued with the spirit of the past. That is why he shuns cell phones, computers, and all things digital – because he refuses to participate in new technologies. That is why he spends his weekends playing drums and percussion in a six-man jazz group – because jazz is dead and only the happy few are interested in it anymore. (Auster, 2011, p. 72)

Bing's idea about the future comes from the recent economic depression and the deflating financial statistics of the U.S. market which have significantly decreased

people's hope for a brighter tomorrow. Bing's argument about the past, however, is somehow pointed to transcendental empiricism. Blending the present with the shadow of the past, like Miles' taking photos from the discarded things, can be interpreted according to Deleuze's constructivism. Analyzing Bing's ideas about the past in line with our Deleuzian project of metaphysics of imagination, however, exhibits a subtler longing at work. As Konik's (2015) study about Deleuze's metaphysics of imagination shows, in time-images "the virtual past always coexists with the actual present" (2015, p. 108). Accordingly, Bing's theory of generating an assemblage between the past and the present is somehow creating a mutual image, a crystalline time-image which refers to the adding of the virtual condition from the past to the present and actual phenomena. Therefore, it would neither be the past nor the present, but an intermezzo between the virtual and the actual planes.

Another character whose intuition pushes him toward thinking about the virtual is Renzo Michaelson. As a novelist, he is influenced by his mother's life story. When he recalls that she was engaged to a would-be famous Hollywood actor whom she never married, Renzo decides to write an essay about such history, to realise what could have come from such marriage. This makes him develop an interesting theory which coincides with Auster's own assumption about virtual reality, a reality in parallel with the American life today in which wars or capitalistic ventures have no

place. Since it seems for Auster that people deserve more than the wreck of the country they have actually inherited, in terms of virtual reality, he wishes a better world. Renzo's idea is similarly "about the things that don't happen, the lives not lived, the wars not fought, the shadow worlds that run parallel to the world we take to be the real world, the not-said and the not-done, the not-remembered". This kind of virtual which belongs to the impossible and bleak past is limited to potentialities on the plane of the real. However, such "chancy territory" might be "worth exploring" (Auster, 2011, p. 153), because it brings to light the inadequacies of the actual world, and instead of wishing a mere utopia, it may enable us with practical solutions toward change and differences. Renzo's contemplation thus moves in the line of the Deleuzian notion of the virtual and tends to criticise the defects of society and to search possible resolutions.

CONCLUSION

To put the findings of this research into a nutshell, we witness in *Sunset Park*, the idea of virtuality is emerging through different characters' thoughts and actions, and is deeply linked to their image of time and fondness of the past. Accordingly, a crystalline description can well inform us of Miles's parents' meeting and their troubled marriage. Furthermore, Bing is inclined toward old commodities, and Miles' aversion to take the picture of discarded appliances shows his sensitivity to the manifestations of the virtual in life. Whether through their contemplations about adding a

flavour of the past to their present situation, or through practical methods like playing jazz, taking photographs or taking care of old typewriters, Miles and Bing share the same concern. They want the virtual and the actual, the material and the immaterial to be brought together. Ultimately, they want something in between the past and the present at the same time, a crystal image per se. Furthermore, Renzo Michaelson is a writer who only uses an old typewriter for creating his texts, and his upcoming essay is going to be about the virtual worlds that run parallel to our actual and sensible one. Renzo is thus among the virtualists of the story too. Therefore, as we delve deeper into the storyworld, the analysis of the characters in *Sunset Park* enables us to demonstrate that they practise reconciliation between the transcendental and the empirical as a method of living. They are apt to bring meaning into their worldviews by adding a shadow of the virtual condition to the all-actual doctrine of capitalism. Thus, they rather use time-images to reach that virtual realm, and ultimately, to be eligible to think about incorporeal materialism.

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Assessing Cyberloafing Behaviour among University Students: A Validation of the Cyberloafing Scale

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ABSTRACT

With greater prevalence of Internet access, there is an alarming trend in the number of students using the Internet in the classroom for non-class-related purposes. Cyberloafing (defined as personal Internet use at work or during class) has been extensively studied by researchers in workplace settings but not in education settings. Particularly, there is lack of research on developing a valid and reliable scale to measure cyberloafing behaviour among students. Hence, this study aims to examine the prevalence of cyberloafing activities among university students and to validate the cyberloafing scale of Akbulut et al. (2016) in the Malaysian context. A total of 238 usable data was collected from the 30-item cyberloafing scale that assessed five dimensions of cyberloafing behaviour namely sharing, shopping, real-time updating, access to online content and gambling / gaming. Descriptive analysis shows that students spend more time on sharing- related activities and least time on gambling / gaming-related activities in the classroom. Based on exploratory factor analysis, five factors are retained with most of the items loaded on its intended dimension factors, suggesting evidence of construct validity. The analysis also indicates that convergent validity is achieved as the factor loadings of each set of items measuring its intended dimension factors are above 0.5. Given that the correlations between extracted factors are not highly correlated, discriminant validity is warranted. These results support the investigated cyberloafing scale as reliable and valid.

Keywords: Cyberloafing, university students, Malaysia

INTRODUCTION

Over the past 15 years, the Internet has caused significant changes in the way we live. In particular, the widespread use of technology and Internet connections has revolutionised the landscape of education in the sense that more emphasis has been placed on the use of information and communication technologies by educators to facilitate effective pedagogy. Given that the current generation of students are highly tech-savvy, effective utilisation of instructional technologies in the classroom has the ability to entice students to pay more attention and be more actively involved in class (Lam & Tong, 2012). In recent years, blended learning, a mode of learning that incorporates face-to-face learning processes with online instruction and communication, has been widely adopted by educators due to its positive ramification on the academic performance of students (Rovai & Jordan, 2004).

Nevertheless, recently, the use of digital devices in the classroom has become a debatable topic among researchers due to potential positive and negative outcomes (Lam & Tong, 2012). For example, Mackinnon and Vibert (2002) discovered that the use of computers in classroom instruction could potentially have a positive impact on student motivation to study and increase academic achievement when appropriately utilised. Another study by Apperson, Laws and Scepansky (2006) found that students learn better and are more receptive to their instructors when classes are conducted with the visual aids of PowerPoint compared to conventional 'chalk-and-talk' methods. Furthermore, in a two-year research project conducted by Project Tomorrow (2015), 127 students and their four assigned teachers were given Android tablets with Internet access for use at both home and school. Interestingly, the results of the study showed notable improvements in the students' reading, writing fluency and participation in the classroom.

Today, students carrying digital devices such as tablets, smart phones and laptops in the classroom is a common occurrence for either class-related or non-class related purposes (Ragan, Jennings, Massey, & Doolittle, 2014). Ideally, educators expect students to use digital devices in an appropriate manner, primarily for class-related purposes such as to look for information related to their lessons or answering online pop quizes, with the aim of facilitating the learning. However, despite the benefits, the use of digital devices has led to some issues. Previous studies have reported that multitasking while attending lectures can lead to impaired learning performance (Fried, 2008; Ravizza, Hambrick, & Fenn, 2013). Moreover, Sana, Weston, & Cepeda (2013) noted that multitasking poses a serious threat to student comprehension of class material. In addition to that, Hembrooke and Gay (2003) also determined that students who are not permitted to use their laptops during class are able to recollect class content significantly better than those who are permitted to use them.

At the same time, it would not be realistic to expect students to use digital devices solely for class-related purposes. Cyberloafing, which refers to student Internet use for non-class-related purposes in the classroom, is a growing concern among educators with researchers viewing it as roadblock to effectively imparting knowledge to students (Taneja, Fiore, & Fischer, 2015). Examples of cyberloafing activities include browsing social networking sites, watching videos online, playing online games, posting tweets and listening to online music and sending emails (Akbulut, Dursun, Donmez, & Sahin, 2016; McCoy, 2016; Taneja et al., 2015). Based on these prior findings, it appears that it is not unreasonable for some instructors to disallow students to use digital devices in the classroom. For example, some professors have explicitly prohibited students from using digital devices during their classes in the hope that students shall pay more attention and take important notes (Guessoum, 2016; Heyboer, 2016).

As the situation of university students' cyberloafing in the classroom becomes increasingly severe, several studies have attempted to examine factors that influence such behaviour (McCoy, 2016; Ragan et al., 2014; Sana et al., 2013). However, a review of existing literature on the subject reveals that empirical studies on cyberloafing in educational environments are mainly exploratory in nature, using demographic characteristics as predictors of cyberloafing. For example,

by conceptualising cyberloafing as a three-dimensional construct namely personal business, news follow-up and socialisation, Baturay and Toker (2015) found that gender, grade and Internet experience are significant predictors of three dimensions of cyberloafing. Additionally, Internet skills are reported to be only significantly related to socialisation while Internet usage is significantly associated with personal business and socialisation but not news follow-up. Meanwhile, another study by Karaoglan-Yılmaz, Yılmaz, Oztürk, Sezer and Karademir (2015) observed that the frequency of cyberloafing is significantly different in terms of gender, departments of study and Internet use frequency.

However, the results of these studies (see Baturay & Toker, 2015; Karaoglan-Yılmaz et al. 2014) might be flawed, or highly questionable, as the adaptation of the cyberloafing scale from Kalaycı (2010) has been criticised for its content validity (Akbulut et al., 2016). Firstly, the cyberloafing scale of Kalaycı (2010) was modified from the scale proposed by Blanchard and Henle (2008) that was developed for use in work-based settings rather than education settings. It is important to recognise that the types of cyberloafing activities in which students engage can be completely different from employees (Koay, Saw, & Chew, 2017). Secondly, Kalaycı (2010) removed too many items in adapting the scale to measure cyberloafing among students, resulting in a loss of excessive information from the original scale which

could potentially lead to inadequacies in measuring the concept of cyberloafing comprehensively.

Given these weaknesses, Akbulut et al. (2016) empirically tested the scale of Kalaycı (2010) on four different samples and concluded that the scale was indeed problematic and incomplete based on expert validations and confirmatory factor analysis. Therefore, Akbulut et al. (2016) proposed a new cyberloafing scale specifically for use in education settings through a series of rigorous scale development procedures. The final scale consists of 30 items ranging across five different dimensions - sharing, shopping, real-time updating, accessing online content and gaming or gambling.

To date, the cyberloafing scale of Akbulut et al. (2016) has not been empirically validated or adapted in any study. In the work by Cowles and Crosby (1986), it is stated that validating a measure through a single investigation may not be sufficient. The construct validity of a scale should be validated through different contexts with different population groups in order to determine the psychometric merit of the instrument (Cowles & Crosby, 1986). This study aims to make contribution of validating the cyberloafing scale in the Malaysian context. According to a survey report published by Malaysian Communications and Multimedia Commission (MCMC, 2016), it is estimated that about 77.6% of the entire Malaysian population are Internet users. The report also indicated that school-goers are those who spend most of their time on the Internet on an average of three hours in a day. Similarly, some studies also found that Malaysian college students are excessive Internet users, spending about three hours every day for various purposes including entertainment, social networking, education and others (Haque, et al., 2016; Sian, Yamin, & Ishak, 2013; Teong & Ang 2016). Yet, not many studies have explored the types of cyber activities in which students engage in the classroom, particular in the Malaysian context.

This paper has the following objectives: (a) to investigate the prevalence of cyberloafing behaviour among university students; (b) to examine the factor structure of the cyberloafing scale of Akbulut et al. (2016) in a sample of Malaysian university students by means of exploratory factor analysis; and (c) to evaluate scale reliability. The implementation of the proposed scale and its improvement are in the following section.

METHOD

Research Design

The implementation approach in this study is empirical, which is quantitative in nature, aimed to validate the survey instrument. The sampling population in this study are university students. Such sampling is selected since the main focus of this study is to examine cyberloafing behaviour among university students in the classroom. Prior to distributing the final questionnaire to the target respondents, it was pre-tested on six undergraduated and two academic experts with a good track record of international

publications on Internet-related research. This was also done in part because pre-testing was deemed an imperative step for this research for two major reasons. Firstly, it was to assess the need to translate the English version of the questionnaire into Malay, since some students might not be well-versed in English due to lack of English knowledge. Based on the feedback from pre-test samples, it was concluded that it was translation was not necessary, since all the questions were in simple, easy to understand English. Secondly, it was to ensure the face validity and psychometric properties of the instrument.

Sample

It is vital that the university from which student data is collected, provides wireless access which allows students to connect to the Internet throughout the campus. To achieve this, three lecturers working in a large private university, a high-tech campus, in Malaysia were requested for their assistance to collect data from their classes over two semesters. Students were given the choice to not participate in the questionnaire. Participants were ensured that their answers would have no subsequent impact on their coursework or final marks.

Out of the 300 distributed questionnaires, only 280 completed questionnaires were received.

All analyses performed in this study were conducted using the Statistical Package for the Social Sciences (SPSS) version 22.0 for descriptive analysis and exploratory factor analysis. To ensure the quality of the data, descriptive analysis was performed to detect outliers and identify cases with serious missing values or silver lining pattern (Bryman & Bell, 2015). Unreliable data were deleted leaving a total of 238 usable data for further analysis. The final sample size was deemed to be sufficient for performing exploratory factor analysis based on five cases per measure recommendation (Hair, Black, Babin, & Anderson, 2014).

The sampling population of university students comprised 42.9% males and 57.1% females. In terms of race, they were 45.4% Malays, 26.5% Chinese, 14.3% Indians and 13.9% were of other ethnicities. Furthermore, almost all the respondents (98.7%) reported that they accessed the Internet on a daily basis. Two-third of the respondents (62.9%) perceived themselves as competent Internet users (advance or expert). The general profile of the survey respondents is presented in Table 1.

Table 1
Profile of the survey respondents

Demographic		Percentage	Frequency (%)
Gender	Male	102	42.9
	Female	136	57.1
Race	Malay	108	45.4
	Chinese	63	26.5
	Indian	34	14.3
	Others	33	13.9
Internet Usage	Everyday	235	98.7
	Couple days in a week	3	1.3
	Never	0	0.0
Internet Skills	Novice	6	2.5
	Intermediate	83	34.9
	Advance	104	43.7
	Expert	45	18.9

Measures

The objective of this paper was to examine the prevalence of cyberloafing behaviours among university students and to validate the cyberloafing scale of Akbulut et al. (2016). The scale of Akbulut et al. (2016) consisting of 30 items was used to measure cyber activities commonly performed by students. Responses were rated on a 7-point Likert scale, varying from 1 = never, 2 = rarely, 3 = occasionally, 4 = sometimes, 5= frequently, 6 = usually and 7 = every time. The Likert scale is defined according to the extent students engage in each cyber activity in the classroom.

RESULTS

The research objective of examining the prevalence of university student cyberloafing behaviour was tested via the frequency of each cyberloafing activity. This is reported and shown in Table 2. According to the mean values, the top three cyberloafing activities in the classroom among students are chatting with friends", giving a like to posts that are interesting and checking friends' posts. Meanwhile, the three least performed cyberloafing activities are betting or gambling online, visiting betting or gambling sites, and shopping online. However, downloading related activities are found to be less prevalent in the classroom among students as downloading music, videos or mobile applications consumes large amount of mobile data, which is expensive and inconvenient for students.

Moreover, students seem to be more active in social networking sites compared to other types of cyber activities in the classroom, consistent with Akbulut et al. (2016). In addition, the results of this study are similar to the study of Yusop and Sumari (2013) reporting that Malaysian young adults use social networking sites

mainly for socialisation (88%) followed by information searching (65%), reading (28%), sharing (23%) and online shopping (12%). Furthermore, almost half of the respondents stated that they never use *Twitter* in the classroom while another half admitted that they use *Twitter* in the classroom, in varying frequency, from rarely to every time.

Also, not surprisingly gambling-related online activities are the least performed cyberloafing activities for a few reasons. Firstly, the Muslim population comprising 60% of the Malaysian population are not permitted to gamble by Islamic legalities. Secondly, gambling requires concentration which may be difficult for students especially during class.

Table 2
Prevalence of cyberloafing behaviour

Items	Cyberloafing activities	1	2	3	4	5	6	7	Mean	Std Dev
Sa1	*I check my friends' posts*	25	50	48	82	20	12	1	3.261	1.331
Sa2	*I check my friends' social networking profiles*	43	71	42	53	23	5	1	2.836	1.367
Sa3	*I share content on social networks*	56	67	35	55	15	6	4	2.748	1.465
Sa4	*I like posts that are interesting*	31	44	46	60	28	22	7	3.437	1.597
Sa5	*I comment on shared photos*	50	74	44	48	11	8	1	2.678	1.352
Sa6	*I post status updates on social networks*	80	86	30	30	9	2	1	2.210	1.228
Sa7	*I tag friends on photos*	95	74	36	20	8	4	0	2.089	1.209
Sa8	*I chat with friends*	24	37	51	64	34	15	11	3.576	1.551
Sa9	*I watch shared videos*	73	60	34	52	11	6	2	2.555	1.433
So1	*I shop online*	158	47	15	11	4	1	0	1.555	0.973
So2	*I visit deal-of-the-day websites*	131	57	21	17	9	2	1	1.849	1.220
So3	*I visit online shopping sites*	116	58	24	24	11	4	1	2.042	1.337
So4	*I visit auction sites (e.g. e-bay)*	153	56	10	11	6	1	1	1.605	1.057
So5	*I use online banking services*	110	64	21	31	7	4	1	2.063	1.309
So6	*I visit online shops for used products*	144	44	20	15	11	3	0	1.793	1.237
So7	*I check job advertisements*	155	44	11	19	6	2	0	1.662	1.127
Aoc1	*I download music during class*	74	80	39	31	8	2	2	2.292	1.256
Aoc2	*I watch videos online*	88	62	37	36	6	7	2	2.324	1.393
Aoc3	*I listen to music online*	125	52	23	19	10	5	3	2.004	1.407
Aoc4	*I download videos*	144	51	16	20	4	2	0	1.713	1.106
Aoc5	*I download applications I need*	57	64	38	42	22	10	4	2.806	1.550
Gg1	*I visit betting/gambling sites*	214	14	5	2	1	0	2	1.193	0.744
Gg2	*I bet/gamble online*	216	13	4	2	1	0	2	1.181	0.733
Gg3	*I check online sport sites*	134	29	17	31	10	8	9	2.218	1.727
Gg4	*I play online games*	158	31	16	18	7	6	2	1.786	1.369

Table 2 *(continue)*

Items	Cyberloafing activities	1	2	3	4	5	6	7	Mean	Std Dev
Rtu1	*I comment on trending topics*	162	33	17	15	9	2	0	1.664	1.171
Rtu2	*I post tweets*	110	54	24	31	14	4	0	2.144	1.370
Rtu3	*I read tweets*	124	34	34	26	10	6	3	2.131	1.483
Rtu4	*I favourite a tweet I like*	105	33	31	32	22	12	3	2.500	1.681
Rtu5	*I retweet a tweet I like*	114	32	32	28	15	14	3	2.378	1.666

Exploratory Factor Analysis

The main purpose of performing exploratory factor analysis (EFA) is to identify the underlying structure among the variables. In this present study, Bartlett's test of sphericity is significant (p<0.01), and the Kaiser-Meyer-Olkin measure of sampling adequacy is 0.860, which is far higher than 0.6 as the cut-point (Tabachnick & Fidell, 2007), suggesting the data is suitable and appropriate for factor analysis. Next, principle component analysis was chosen as the method of factor extraction using an orthogonal rotation of varimax on the data to determine the underlying factor structure and to evaluate the construct validity of Akbulut et al.'s (2016) cyberloafing scale.

The criteria used to extract the factors were according to:

1) Keiser's criterion (eigenvalue must be greater than 1) (Kaiser, 1958)

2) Scree Plot (Cattell, 1966)

2) The loading score for each item >0.50 (Pallant, 2007)

3) Factors must have more than 3 items loaded (Pallant, 2007)

By evaluating the eigenvalues and by observing the scree plot, five factors were retained, which accounted for 61.07% of the total variance of the scale, reaching a satisfactory level (Hair et al. 2014). This is shown in Table 3 and Figure 1. The factor structure is similar to Akbulut et al.'s (2016) consisting of five sub-dimensions of cyberloafing. The majority of the items are loaded in accordance to their intended factors; no major cross-loadings were observed, showing evidence of uni-dimensionality for all the five factors. As a result, it can be concluded that convergent validity is achieved. Convergent validity is the extent to which a measure correlates positively with alternative measures of the same construct. Furthermore, with the correlation values between constructs lower than 0.9, no sign of collinearity is shown, thus suggesting evidence of discriminant validity. Constructs are distinct and unrelated to each other. Discriminant validity refers to the extent to which the constructs are theoretically distinct from each other (Bryman & Bell, 2015).
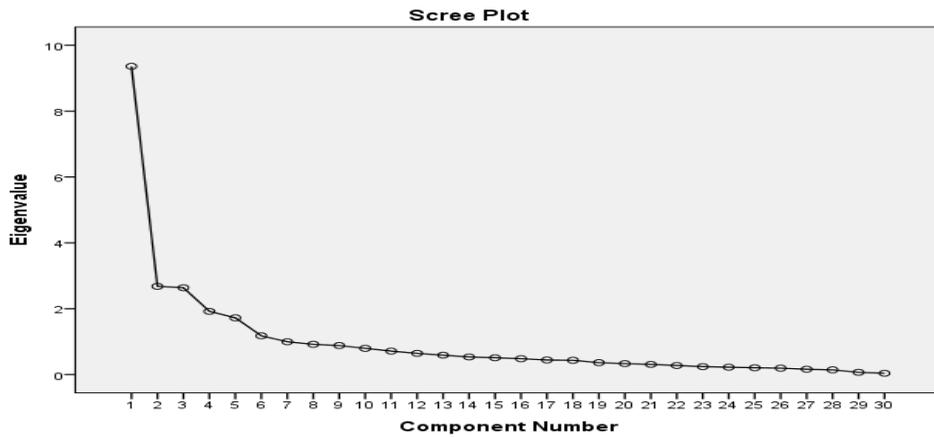
Figure 1. Scree Plot

Table 3
Rotated component matrix

	Component				
	1	2	3	4	5
Sa5	.765				
Sa2	.721				
Sa1	.710				
Sa7	.708				
Sa4	.693				
Sa6	.681				
Sa3	.670				
Sa8	.609				
Sa9	.596				
So3		.810			
So2		.809			
So4		.794			
So5		.713			
So6		.699			
So1		.647			
Rtu5			.939		
Rtu4			.934		
Rtu3			.898		
Aoc2				.681	
Aoc5				.658	

Table 3 *(continue)*

	Component				
	1	2	3	4	5
Gg3				.591	
Aoc1				.537	
Gg2					.928
Gg1					.908
Gg4					.547
Eigenvalue	9.360	2.680	2.638	1.920	1.723
% Variance	31.199	8.934	8.794	6.400	5.744
Cronbach's alpha	0.890	0.886	0.958	0.682	0.696

*factor loadings <0.5 are compressed

Table 4
Means, Standard Deviation and Intercorrelations

	M	Sd	Sa	So	Rtu	Aoc	Gg
Sa	2.524	0.895	1				
So	1.818	0.954	.469**	1			
Rtu	2.336	1.548	.321**	.252**	1		
Aoc	2.410	1.066	.441**	.496**	.262**	1	
Gg	1.387	0.784	.135*	.272**	.210**	.335**	1

M = Mean, Sd = Standard Deviation, Sa= Sharing, So = Shopping, Rtu = Real-time updating, Aco = Accessing online content, Gg = Gambling/ Gaming
** Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

DISCUSSION

Among the 30 existing items, five items (Aoc3, Aoc4, So7, Rtu2, Rtu1) were deleted from the scale. The basis for the removal of these items is their low factor loading (lower than 0.5) or factors with less than three items, thus excluding the factors. The internal consistency of each factor is assessed through Cronbach's alpha (α) method. The Cronbach's alpha (α) values of all the factors range from 0.682 to 0.958,

which is acceptable for establishing internal consistency of factors (George & Mallery, 2003; Kline, 2000;).

There were eight items (Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8) which loaded under Factor 1, with an eigenvalue of 9.360, explaining 31.199% of the total variance. Sample items: "I share content on social networks" and "I chat with friends". All items were loaded on its intended factor, consistent with Akbulut et al.'s (2016). This

suggests that the majority of students use the Internet mainly for socialisation and sharing information during class. Therefore, this factor is labelled as sharing.

Factor 2 consisted of six items (So1, So2, So3, So4, So5, So6), with an eigenvalue of 2.680, explaining the 8.934% variance. This factor is mainly related to online shopping activities and therefore labelled as shopping. Sample items: "I visit online shopping sites and I visit deal-of-the-day websites". The results indicate that some students may lose focus in class by diverting their attention to online shopping. Research has reported that educated youngsters are the most loyal clients of e-shops, especially on clothing and shoes (PMR Research, 2012). Possible reasons why young people prefer to shop online includes convenience, availability of information, product variety, and cost and time efficiency (Monsuwe, Dallaert, & Ruyter, 2004; Prasad & Aryasri, 2009).

Factor 3 was labelled as real-time updating, consisting of three items (Rtu3, Rtu4 and Rtu5), with an eigenvalue of 2.638, explaining 8.794% of the variance. This factor focuses on reading, re-tweeting and marking content updated by those whom they follow as favourites on *Twitter*, which is a popular micro-blogging tool in which people share small pieces of digital content with their followers. These contents can be in any form such as texts, pictures, videos, or other forms of media. It can be noted that the number of active *Twitter* users in Malaysia has been growing steadily and is expected to increase up to 2.4 million in 2019 (Statista, 2016).

There were four items (Aoc1, Aoc2, Aoc5, Gg3) in loaded Factor 4, with an eigenvalue of 1.92, explaining 6.4% of the total variance. This factor includes cyber activities such as watching videos online, downloading music online, using applications and checking online sport sites. Hence, it was labelled as accessing online content. In item Gg3, "I check online sport sites) is originally categorised under the factor of gaming/ gambling in Akbulut et al. (2015). However, checking online sport sites is more related to the factor of accessing online content rather than gaming. For example, students often spend time checking real-time scores for live sports events during classes.

There were three items loaded in Factor 5 (Gg1, Gg2 and Gg3), with an eigenvalue of 1.723, explaining 5.74% of the total variance. Sample items included "I play online games" and "I visit betting/gambling sites". Due to the nature of these activities requiring a large amount of attention and concentration, students can easily get distracted with short attention spans in the classroom, subsequently affecting their ability to comprehend class material. It is expected that cyber activities categorised under this factor will not be widely indulged by students as gambling is prohibited for Muslims by Sharia law in Malaysia, and playing online games in the classroom is seen as a form of disrespectful behaviour towards instructors.

Despite elimination of several items, the results of this study confirmed the original five-factor cyberloafing scale of

Akbulut et al. (2015), showing evidence of reliability and stability of the scale in a different context. It is highly recommended that future studies on cyberloafing in educational settings adapt the cyberloafing scale developed by Akbulut et al. (2015) instead of the previous cyberloafing scales (e.g., Baturay & Toker, 2015; Kalaycı, 2010; Karaoglan-Yılmaz et al., 2015) which are obsolete, and inadequate in capturing the conceptual domain of cyberloafing comprehensively without considering contemporary cyber activities. It is important to acknowledge that the rapid pace of technological advancement has been a critical factor in the emergence of new types of cyber activities. For example, when first launched, *Facebook* was mainly for posting status and pictures. Subsequently, *Facebook* added many new features such as "like" button, live streaming, photo tagging and others. These are important elements which need to be taken into consideration in the cyberloafing scale.

CONCLUSION

Extant studies on cyberloafing in educational contexts have mainly utilised outdated cyberloafing scales to measure the construct of cyberloafing. Failing to incorporate new types of cyberloafing activities to measure cyberloafing behaviour can lead to biasness in results. Previous studies have conceptualised cyberloafing as a single general construct (Gerow, Galluch, & Thatcher, 2010; Taneja et al., 2015) or 3-dimensional construct (Baturay &

Toker, 2015; Karaoglan-Yılmaz et al., 2015), all of which have been proven to be incomplete and problematic (Akbulut et al., 2016). This is because different dimensions of cyberloafing have their own set of antecedents (Blau, Yang, & Ward-Cook, 2006). For instance, boredom may be a strong predictor of the use of social media but a weak predictor of online gambling behaviour in the classroom. Therefore, a complete understanding of students' cyberloafing during class can only be acquired if researchers take various dimensions of cyberloafing into consideration. This work makes contribution in adapting and validating the cyberloafing scale in the Malaysian context. Further studies are urged to follow Akbulut et al.'s (2016) conceptualisation of cyberloafing as a five-dimensional construct.

LIMITATIONS AND FUTURE RECOMMENDATIONS

The present research has several limitations which should be taken into consideration. Firstly, the data was collected from a private university and therefore the findings may not apply to the entire Malaysian student population. Secondly, the cyberloafing scale of Akbulut et al. (2016) validated in this study does not include latest cyberloafing activities such as live streaming, photo editing, taking selfie and others. Future research should incorporate all these elements into the scale so as to measure cyberloafing more comprehensively.

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Effectiveness of *ToyBox* Intervention to Reduce Sedentary Behaviour among Pre-school Children: A Case in Malaysia

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ABSTRACT

Children have been found to spend more time on gadgets in learning and passing leisure time especially in the era of this new millennium. Besides, modern parents also claim that gadgets possess additional education function for children in acquiring new information. Nonetheless, on the flip side of using gadgets, little is known about the intervention in reducing sedentary behaviour, which mainly refers to prolonged sitting, especially among pre-schoolers. Thus, the present study investigates the effectiveness of *ToyBox* intervention in Malaysia to reduce sedentary behaviour among pre-schoolers (n = 281) via primary caregivers' self-reports. In addition, the Mann Whitney U test displayed significant variances between the experimental group and the control group in reducing sedentary behaviour among five-year-old and six-year-old pre-schoolers. Besides, the Wilcoxon Signed-Rank Test revealed significant differences in the experimental group before and after treatments among four-year-olds, five-year-olds, and six-year-old pre-schoolers. Interestingly, Split-plot ANOVA analysis showed that the interaction terms of groups and treatment were significant, where the treatment for experimental groups was significantly lower in sedentary behaviour after treatment. As a result, the *ToyBox* intervention in Malaysia is indeed a promising intervention to reduce sedentary behaviour among pre-schoolers.

Keywords: Pre-schoolers, sedentary behaviour, teachers, *ToyBox* intervention in Malaysia

INTRODUCTION

The traditional setting for children's play, either at home or at a childcare setting has undergone several primary changes among the new millennials. Back in the 90s, children were engaged actively in outdoor activities and played traditional toys. Meanwhile, in this new digital age, gadgets are accessible for all ages. Children's play activities have transformed from outdoor physical time to indoor screen time. In fact, younger children are performing better in tapping and swiping when consumed in tablets or mobile phones instead of writing, colouring, arranging blocks or sharing toys with peers. For instance, a whopping 98% of parents in Southeast Asia allow children aged three to eight to use devices (the Asian Parent Insight, 2014). This scenario illustrates that the children's play world is influenced by adults (Kernan, 2007), whereby adults agree that screen viewing has helped improve children in learning, and more importantly, to keep them silent.

As such, sedentary lifestyle among children is on the rise. Children, at present times, play gadgets in sitting or lying position and are engaged in sedentary behaviour, where physical activities are lacking (Dan, Mohd Nasir, & Zalilah, 2011; He, Piche, Beynon, Kurtz, & Harris, 2011; Keating, 2011;). Moreover, it has been claimed that sedentary behaviour may cause obesity behavioural issues (Manios, et al., 2012; Ramirez, et al., 2011; Sharifah, Nur Hana, Ruzita, Roslee, & Reilly, 2011), and drop in academic achievement

(Tremblay, et al., 2011). In fact, sedentary lifestyles and physical inactivity along with increased access to junk food and drinks can be considered as major risk factor for obesity among young children. According to reports from the National Health Morbidity Survey (2015), more than 7% of children in Malaysia under the age of five can be identified as overweight. The overall prevalence of obesity among children below the age of 18 years in Malaysia was reported to be 30%, with Perlis and Melaka having the highest prevalence rate of 36%. Furthermore, urban areas were reported to have high prevalence rate (31%) compared to rural areas (29%). One of the possible explanation for the differences in obesity prevalence among urban and rural areas could be sedentary lifestyle adopted by people in urban areas. Obesity can seriously affect a child's development, overall health, and quality of life, and can lead to further health related complications such as asthma, cardio-vascular problems, Type 2 diabetes, and sleeping disorders. As sedentary lifestyle is considered one of the most important causal factors related to obesity among children, therefore, it is necessary to intervene and make systematic efforts to improve the quality of life of young children by encouraging an active lifestyle.

On the other hand, as for childcare setting, Haelle (2015) reported that physical activities engaged by pre-schoolers had dramatically decreased and they had been found to be no longer active within recent years. Most of the time, they listened to

their teachers in sitting position and lacked physical interaction with peers. Furthermore, in line with the statistics concerning gadget use, sedentary habits are rampant because children prefer sitting down to perform their daily activities. Hence, in order to prevent these negative consequences, there is a dire need to introduce intervention to promote healthy living, especially for those who hate exercising and love indulging in screen time (Alattraqchi et al., (2014).

Indeed, several interventions targeted to reduce screen time have been established (Bergh et al., 2014; Dwyer et al., 2013; Finch et al., 2014; Manios et al., 2012; Salmon, 2010). Some interventions have targeted parents (Birken et al., 2012; Haines et al., 2013) while others involved both parents and children (Carson et al., 2013; Verloigne et al, 2012). On the other hand, a few classroom interventions only focused on children, and teachers were encouraged to be instrumental in providing these interventions. With that, the *ToyBox* (Manios et al., 2014) is one of the most systematic interventions that has focused upon preschool children in their classroom setting by involving teachers to reduce sedentary behaviour. The original *ToyBox* was developed to build and to evaluate a cost-effective kindergarten-based, family-involved intervention scheme, in order to prevent obesity in early childhood in Europe. Besides, the *ToyBox* involved ten European countries (Greece, Germany, Belgium, the Netherlands, Spain, Norway, UK, Poland, Bulgaria, and Luxembourg) and it was coordinated by Yannis Manios

from Harokopio University. The manual consisted of drinking water, physical activity, eating and snacking, and sedentary behaviour. Nonetheless, this present study only adopted the sedentary behaviour manual, which is relevant to the objectives set, after permission was granted by the pioneer to conduct a test in Malaysia.

The intervention mapping protocol (IMP) is a systematic evidence-based protocol for preschools from *ToyBox* intervention. IMP practices are designed to reduce sedentary behaviour among pre-schoolers (De Decker et al., 2014). In fact, six steps are incorporated: 1) conducting needs assessment, 2) preparing matrices of change objectives, 3) selecting theory-informed intervention methods and practical strategies, 4) producing intervention components and materials, 5) planning programme adoption and implementation, and 6) evaluation planning. This six-step guide explains the need and the importance of conducting intervention. This protocol also helps to plan and evaluate the effectiveness of certain treatment in reducing sedentary behaviour, especially among pre-schoolers.

Hence, after determining the need for treatment to reduce sedentary behaviour via *ToyBox* intervention, the present study examined the following: 1) before and after the experiment between the experimental groups and control groups in sedentary behaviour among 4-, 5-, and 6-year-old pre-schoolers, as well as 2) before and after the treatment between experimental groups

and control groups among 4-, 5-, and 6-year-old pre-schoolers. As such, the following hypotheses were formed:

H1a: There is insignificant difference between the experimental groups and control groups in their level of sedentary behaviour among 4-, 5-, and 6-year-old pre-schoolers before the treatment.

H1b: There are significant differences between the experimental groups and control groups intheir level of sedentary behaviour among 4-, 5-, and 6-year-old pre-schoolers after the treatment.

H2a: There is significant difference before and after the treatment within the experimental groups among 4-, 5-, and 6-year-old pre-schoolers.

H2b: There is insignificant difference before and after the treatment within the control groups among 4-, 5-, and 6-year-old pre-schoolers.

H3a: There are significant interaction effects before and after the treatment for experimental groups.

METHODS

The present study applied true experiment pre-test and post-test design after considering the availability, advantages, and disadvantages of experimental design. According to Creswell (2014), true experiments are the most powerful experimental designs in research due to the randomly assigned participants to experiment and control groups equally to reduce potential threats (Campbell & Stanley, 1963).

Participants

As suggested by Schulz and Grimes (2005), by using type I error of 0.05 and power of 0.80, it is usually acceptable to apply in randomization, where 200 is acceptable for sample size. As a result, the sample size for pre-schoolers in the present study (n = 281) were well beyond the total estimated in the intervention. Table 1 shows the demographic of pre-schoolers and Table 2 shows the demographic of a total of 42 pre-school teachers. Recruitment of participants took place from October 2015 until December 2015. Besides, the following criteria were set to select the pre-schoolers as participants: 1) they were free from participating in any other clinical trial or other health-oriented project during the academic years (2015-2016) to prevent bias during intervention, 2) pre-schoolers' participation rate was calculated, whereby if the participation rate was lower than 50%, the pre-schooler(s) would be excluded from the study, and 3) the ratio for teacher and pre-schoolers is 1:25 in a class (Heng, 2008).

Table 1
Demographic variables of pre-schoolers

Variables	Experimental group		Control group	
	Frequency (N)	Percentage (%)	Frequency (N)	Percentage (%)
Gender				
Male	66	47.8	65	45.5
Female	72	52.2	78	54.5
Age				
4-year-old	46	33.3	53	37.1
5-year-old	45	32.6	50	35.0
6-year-old	47	34.1	40	28.2
Total	138	100	143	100

Measures

Primary Caregiver Questionnaire (PCQ).
Sedentary behaviour was measured by using
subjective measurement (PCQ, self-report
with 15 items) from primary caregivers in
order to understand screen based-sedentary
behaviour at home. The measurement
scales for each item ranged from 1 (strongly
disagree) to 5 (strongly agree). Besides, the
pre- and post-tests were evaluated by the
primary caregivers. Cronbach's Alpha in
the present study was .60 and is acceptable
in psychology (Loewenthal, 2004). The rule
of thumb of acceptable Cronbach's Alpha
values, according to George and Mallery
(2003), is below .50.

Table 2
Demographic variables of preschools' teachers

Variables	Frequency (N)	Percentage (%)
Gender		
Male	6	14.3
Female	36	85.7
Age		
20-25	8	19.0
26-31	20	47.6
32-37	10	23.8
38-43	2	4.8
44-49	2	4.8
Education Level		
SPM	15	35.7
STPM	2	4.8
Diploma	14	33.3
Degree	11	26.2
Total	42	100

ToyBox Intervention. The *ToyBox*
intervention (Manios et al., 2012) was
adopted as a series of game-based approach
with involvement of teachers to reduce
sedentary behaviour among pre-schoolers.
It is a reliable intervention as it has been
tested in ten Europe countries (Belgium,
Bulgaria, Germany, Greece, Poland,
Spain, the Netherlands, Norway, UK and
Luxembourg). As such, the intervention
was approved by Manios et al. (2012) to
be replicated in Malaysia. There were two
types of movement breaks which were
involved: 1) short movement breaks (1-5

minutes), and 2) long movement breaks (15 – 30 minutes). Short movement breaks comprise seven types of games, which are intended to break sedentary lifestyle and to help improve the interactions between pre-schoolers. First, the spin the wheel is compulsory for every morning before class starts. This is to generate an active mode before pre-schoolers learn something new. The second game is playing after two lessons of class. Teachers can choose any game from the classroom guideline (refer Table 3).

Long movement breaks consist of four types of movements to introduce the benefits of playing fun games as a substitute to gadget use. Pre-schoolers are asked to provide their opinions about gadget use and how they plan to reduce the usage at home. Teachers explain the benefits of physical activity instead of screen time, and token (sticker) is given if the pre-schoolers actually decrease their screen time at home.

Table 3
Differences of ToyBox intervention in Europe and ToyBox intervention in Malaysia

Games	*ToyBox* Intervention Europe	*ToyBox* Intervention Malaysia
Short movement breaks (1-5 minutes)	15 games	7 games selected
	- Imitating marching	- Spinning the wheel
	- Playing puppets	- Going around
	- Belly drawing in the air	- Playing statue
	- Painting in the air	- Flamingo
	- Keeping the balance	- Mirror image
	- Hiding your belly!	- Hands, you need to listen!
	- Nothing seek, nothing found	- My Friend is in the middle
	- Picture game	
	- Fireworks	
Long movement breaks (15-30 minutes)	12 games	5 games selected
	- I am sad because I don't have a friend	Weekly Calendar
	- Walking a tightrope	Gadget bingo
	- Looking is stopping	Alternatives to play gadgets
	- Sit still! Don't move!	Find a friend
		Celebrate breaking free of being sedentary and increasing social skills
	- Move, move, move!	
	- Collage of fun activities	
	- No tv signs	
Kangaroo storytelling (30 minutes)	3 stories (3 eliminated)	none
	- Adventure at the Forest	
	- Little Kangaroo and Friends Search for Mrs. Owl	
	- Little Kangaroo's Magic Socks	

The original *ToyBox* intervention focused on four levels: 1) setting environmental changes in the classroom, 2) children implementing the actual behaviour (water consumption, healthy snacking, physical activity, and interruption of sedentary time) in the kindergarten, 3) teachers implementing fun classroom activities (such as stories, experiments, games) with active participation of the whole class, as well as 4) active involvement of parents to apply environmental changes and implement these lifestyle behaviours, together with their children, at home (www.toybox-study.eu). The present study selected only children who implemented the actual behaviour in sedentary behaviour and teachers who implemented selected fun classroom activities. Thus, the present study employed a slightly different design method, in comparison to the original *ToyBox* intervention in Europe, due to several limited resources in Malaysia.

Furthermore, based on the original classroom activity guide in reducing sedentary behaviour (Table 3), the *ToyBox* intervention in Malaysia only selected seven short movement breaks and five long movement breaks for the seven-week intervention period. The reasons for the games to be excluded during training workshop were: 1) teachers and pre-schoolers were not comfortable to perform the activities (*belly drawing in the air, painting in the air*), which require standing upright in the classroom. Besides, teachers

in Malaysia punish children by asking them to stand on desks, which is inappropriate to be implemented as a classroom game; 2) teachers were not confident in using puppets to teach pre-school children (*playing puppets*); 3) pre-schoolers aged four and five could hardly understand the steps to perform the activities and lengthy time was required to explain the pictures with body parts during pilot experiment (*keeping balance, hiding belly, picture games, nothing seek, nothing found, fireworks*). Therefore, the teachers suggested to exclude the nine games to achieve better intervention results.

In addition, the long movement breaks were reduced from 12 games to five games only due to the following reasons: 1) limited space to perform some activities (*I am sad because I don't have a friend, walking along a tightrope, looking is stopping*). These activities require empty space to perform and pre-schoolers have to run in a circle; 2) pre-schoolers showed lack of interest in some games (*sit still, don't move, move, move, move*); and 3) some games were similar to the others (*collage of fun activities, no tv signs*).

Lastly, the kangaroo storytelling activity has varied cultural values in Malaysia compared to that in the European countries. Pre-schoolers preferred local stories and fairy tales during storytelling. Some teachers also revealed that they did not have storytelling time during lessons and this posed a challenge for them to perform in classrooms. Therefore, the storytelling part

in the classroom guideline was withdrawn due to the low response obtained from the teachers.

Procedure

Ethical permission for the present study was sought from the Malaysian Ministry of Education. Furthermore, headmasters/headmistresses from selected preschools were contacted to discuss the intervention. Upon teachers' expression of interest to participate, informed consents were gathered from the teachers and parents before the study was carried out. Three preschools from Pahang and Kuala Lumpur participated voluntarily with full commitment. Data collection started in February 2016 and ended in September 2016. After the informed consents were received from teachers and parents, the teachers were given a one-day workshop and training on how to conduct the intervention. Besides understanding the goals of the intervention, the teachers were asked to demonstrate ishare their methods with other teachers in order to improve the intervention. Moreover, a pilot experiment was conducted (n= 20 for experimental group, n = 20 for control group) to test the classroom activities guide and protocol. The results showed that the selected games were indeed suitable to be carried out in pre-schools and the teachers expressed positive comments after treatment was carried out.

DATA ANALYSES

Non-parametric tests were used to analyse the data as assumption-free tests were employed with fewer assumptions (Field, 2013). The data were ranked based on the lowest scores up to the highest scores. The data retrieved for the present study were not normally distributed and therefore, the Mann-Whitney test was applied to compare before and after the experiments between experiment and control groups. Other than that, the Wilcoxon rank-sum test was conducted to test within the experimental and control groups for before and after treatments. In order to test the interaction effect for the treatment, Split-plot ANOVA analysis was used by using repeated measure ANOVA. This was to test the interaction effect of the *ToyBox* intervention. All data were analysed using IBM SPSS statistics version 20. After that, the data were screened for scores of mean, standard deviation, minimum, maximum, skewness, kurtosis, and outliers.

RESULTS

For the first objective, the Mann Whitney U Test was conducted to assess the before and after experiments between the experimental and control groups in determining the level of sedentary behaviour among 4-, 5-, and 6-year-old pre-schoolers.

Table 4
Before and after experiment: Mann Whitney U Test between experimental groups and control groups in levels of sedentary behaviour

Sedentary behaviour	N	Mean rank		Z		Sig	
		Before	After	Before	After	Before	After
4-year-old	99						
Experiment	46	55.02	44.21	-1.662	-1.909	.097	.056
Control	53	45.65	55.03				
5-year-old	95						
Experiment	45	45.13	40.53	-.974	-2.526	.330	.012
Control	50	50.58	54.72				
6-year-old	87						
Experiment	47	48.05	37.19	-1.675	-2.808	.094	.005
Control	40	39.24	52.00				

Table 4 shows that before the treatment, both the experiment and the control groups were equal and insignificant for 4-year-old (U = -1.662, p> 05), 5-year-old (U = -.974, p>.05), and 6-year-old (U = -1.675, p>.05) pre-schoolers. On the other hand, 5-year-old (U = -2.526, p<.05) and 6-year-old (U = -2.808, p<.05) pre-schoolers were found to display significance in reducing sedentary behaviour in the experiment groups, compared to control groups after treatment. Hence, null hypothesis 1a was accepted and insignificant difference was discovered between experimental groups and control groups for the level of sedentary behaviour among 4-, 5-, and 6-year-old pre-schoolers before treatment. Meanwhile, null hypothesis 1b was partially accepted as only 5-year-old and 6-year-old pre-schoolers showed variances between the experimental and control groups for their level of sedentary behaviour after treatment.

On the other hand, for Objective 2, the Wilcoxon Signed-Rank Test was applied to test the before and after treatment within experimental and control groups. Based on Table 5, it was found that the treatment was able to reduce the sedentary behaviour exerted among the experimental groups for 4-year-old (Z = -5.491, p<.05), 5-year-old (Z = -4.206, p<.05), and 6-year-old (Z = -5.774, p<.05) pre-schoolers. However, surprisingly, the control groups also exhibited significance in reducing sedentary behaviour for 4-year-old (Z = -4.363, p<- .05) and 6-year-old (Z = -4.522, p<.05) pre-schoolers, but not for 5-year-old (Z = -1.330, p>.05). Thus, null hypothesis 2a was accepted and a significant difference was revealed before and after treatment within the experimental groups among 4-, 5-, and 6-year-old pre-schoolers. Besides, null hypothesis 2b was partially accepted and only 5-year-old pre-schoolers showed no difference for before and after treatment within control groups.

Table 5
Experimental and Control Group: Wilcoxon Signed-Rank Test before and after the treatment in sedentary behaviour

Sedentary Behaviour	N	Median		Z		Sig	
		Experimental	Control	Experimental	Control	Experimental	Control
4-year-old	99						
Before	46	43.00	43.00	-5.491	-4.363	.000	.000
After	53	42.00	42.00				
5-year-old	95						
Before	45	44.00	44.00	-4.206	-1.330	.000	.184
After	50	42.00	43.00				
6-year-old	87						
Before	47	44.00	44.00	-5.774	-4.522	.000	.000
After	40	42.00	43.00				

Further investigation to probe interaction effects was conducted with a split-plot ANOVA. Table 6 summarises that the between-groups factor was not found to be significant, whereas the within-subject factors was significant. In other words, there was a significant effect in reducing pre-schoolers' sedentary behaviour, $F(1, 279) = 225.396$, p<.000. Interestingly, the interaction term of groups and treatment were found significant as well, $F(1, 279) = 74.454$, p<.000, where the treatment for experimental groups was significantly lower in sedentary behaviour after treatment (refer Figure 1).

Table 6
Summary of results of Split-Plot ANOVA

Source	SS	df	MS	F	p
Between-subjects					
Groups	13.357	1	13.357	1.879	.277
Error	1983.359	279	7.109		
Within-subjects					
Treatment	175.621	1	175.621	225.396	.000
Group x treatment	58.012	1	58.012	74.454	.000
Error	217.387	279	.779		
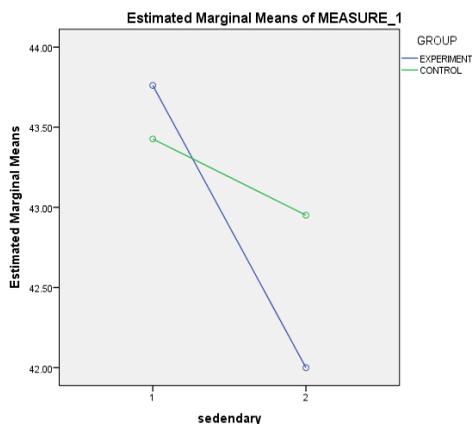
Figure 1. Graph of Cell Means for Sedentary Behaviour

DISCUSSION

Objective 1: Before and After the Experiment for Experimental and Control Groups in Sedentary Behaviour among 4-, 5-, and 6-Year-Old Pre-Schoolers

The seven-week intervention showed a small positive result in reducing sedentary behaviour among pre-schoolers. The 5-year-old and 6-year-old pre-schoolers showed significant results in reducing sedentary behaviour at home, as reported by primary caregivers. These findings imply that game-based approach is indeed a promising method to apply during early childhood education in pre-schools. The teachers also play a vital role in promoting healthy lifestyle, besides focusing on curriculum during pre-school. One of the issues in pre-school education in Malaysia as denoted by Majzub (2013), is related to teaching and learning in pre-school classrooms. The present findings also help to add to the existing knowledge, in

which pre-schools should have quality staff training (Puteh & Ali, 2013) in teaching with a holistic game-based approach in classroom learning. Besides, pre-schoolers learn better in a cheerful environment through positive interaction with peers and teachers (Abu Bakar, 2010). In relation to this, the majority of pre-school teachers is have only high school qualification, with inadequate teaching experience or a repertoire of good teaching skills. In comparison, in Singapore, most recently in 2013, the qualification requirements for pre-school teachers were increased from certificate to diploma level (UNESCO, 2016). Prior to knowledge of teaching, pre-school teachers have been unaware of the sedentary lifestyle of pre-schoolers, which includes prolonged sitting in the classroom.

Based on the results, the 4-year-old pre-schoolers showed no variance after treatment. Based on a preliminary interview study carried out by Hon, Chua and Hashmi (2016), teachers reported that 4-year-old pre-schoolers lacked communication skills and were quiet in pre-schools. They showed no response during classroom learning and their comprehension was poor. This was due to the adaptation of pre-schoolers in the early stage and their comprehension of instructions was still at an alteration stage. Nonetheless, compared to older pre-schoolers, they performed better in communication, in expressing themselves, and in following instructions whenever required. This finding demonstrates that 4-year-old pre-schoolers need more attention and efforts by pre-school teachers to educate

them with varied strategies through a variety of games. Furthermore, in comparison, in the Republic of Korea, the programmes organised for children aged 3 to 5 years old in Early Childhood Care and Education (ECCE) focus on a holistic perspective on child development, are centred on the child, and revolve around play activities (UNESCO, 2016). Additionally, the combination of play activities and child development alleviates anxiety and stress among pre-schoolers with poor cognitive development.

Thus, the present study has helped to introduce an effective game-based approach in teaching to promote healthy lifestyle. For example, in order to break the sedentary lifestyle among 4-year-old children, teachers can choose *Flamingo*, instead of *Hands, you need to listen*!. This is because, *Flamingo* helps to increase physical activity, generate higher concentration, induce relaxation during stressful moments, and offer improved motor coordination through soothing music. On the other hand, the latter requires a lot of instructions that make the 4-year-old pre-schoolers barely understand the movements in the game.

Objective 2: Before and After the Treatment within Experimental and Control Groups among 4-, 5-, and 6-Year-Old Pre-Schoolers

It was found that the 5-year-old pre-schoolers in the control groups showed insignificant results after the experiment between the experimental and control groups. Thus, the control groups represented

a good comparison group before and after treatment. Surprisingly, both the experimental and control groups showed significant results after treatments, as the control groups displayed a significant decrease in sedentary behaviour for 4-year-old and 6-year-old pre-schoolers. Moreover, according to Campbell and Stanley (1963), there is possibility for interaction between selection and X even though the participants were equally assigned into experimental and control groups. In precise, the greater the amount of cooperation involved, the greater the amount of interference of routine, and the higher the refusal rate, the more opportunity there is for a selection-specificity effect. Simply put, the present study lacked awareness concerning refusal rate and most of the teachers claimed that this treatment was hostile, along with extra work. In spite of that, the experimental groups showed some positive results in reducing sedentary behaviour, as depicted in the primary caregivers' self-reports.

Nevertheless, despite the positive results observed in reducing sedentary behaviour among children who participated in the experiment, the current study has limitation in terms of its methodology. The limitation of the present study refers to the difficulty in obtaining full commitment from the pre-schools to participate in the present study. Of the 20 pre-schools approached, only three pre-schools agreed to give full participation in the experiment, and the other principals disagreed with the experiment. In fact, some principals addressed the objectives of decreasing sedentary behaviour as being

opposed to their teaching, but they did agree that gadget use among pre-schoolers has increased. For instance, a principal argued that pre-school is a period for pre-schoolers to fulfil the criteria of readiness before pursuing primary school. In addition, the children are encouraged to instil quiet attitude during class and to master writing simple alphabets. As such, there is no doubt that Asian countries have adopted a holistic curriculum for pre-schools to ascertain that these pre-schoolers can perform paper-pencil activities, instead of focusing on social development.

Moreover, due to poor participation of pre-schools, the cluster randomised trial could not be carried out in the present study and thus, generalisation of results could not be attained, in comparison to the original *ToyBox* intervention (Manios et al., 2014). Moreover, objective measurement was not adopted in the present study, as inconsistency was present in monitoring the children's activities within the seven-day period (Dwyer et al., 2013) during the pilot experiment. Other than that, Biddle, Petrolinim and Pearson (2014), Steeves, Thompson, Bassett, Fitzhugh, & Raynor (2012), and LeBlanc et al. (2012) emphasised that self-report could spell out the types of sedentary behaviour, especially among younger children. However, the pre-test and post-test design is proficient enough to provide some positive effects upon reducing sedentary behaviour for 5-year-old and 6-year-old pre-schoolers, as mentioned earlier.

Furthermore, it would have been interesting if the evaluation protocol of the present study had included a group of policymakers to promote healthy lifestyle through collaboration with pre-schools. However, these preliminary results have helped to expose the importance of staff training and the upkeep of quality among the pre-schools. Beyond doubt, it is crucial for early childhood teachers to promote play in pre-schools (Tarman & Tarman, 2011), besides increasing physical activities in the syllabus. Moreover, the teachers who participated in the present study displayed anxiety and stress about the content in the syllabus and further neglected the aspect of social development for pre-schoolers. As such, it is utmost essential to determine the quality of pre-schools in relation to social skills (Broekhuizen, Mokrova, Burchinal, Garett-Peters, & the Family Life Project Key Investigators, 2016), and a vast untapped area is open for researchers to explore the effectiveness of *ToyBox* intervention in enhancing social skills in future studies.

CONCLUSION

As a conclusion, the results obtained from the true experimental pre-test and post-test design has been generally acceptable to test the effectiveness of *ToyBox* intervention in Malaysia, specifically among pre-schoolers. Furthermore, the guide for classroom activities was revised, whereby only seven games were selected for short movement breaks, and five for long movement breaks. Besides, even though sedentary behaviour

is a new term for the teachers, sedentary behaviour exerted by these pre-school children was successfully reduced through the implementation of games in pre-schools on a daily basis. With that, a follow-up study for further intervention is underway.

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To Go, or Not to Go: The Palestinian Realities of Exile in the Works of Sahar Khalifeh

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ABSTRACT

Palestinian exile under the Israeli occupation is one of the core themes in Palestinian narratives. Exiles encounter multiple issues like dislocation, fragmentation of identity, separation from the family and psychological anguish in their day-to-day life. Palestinian writers have been engaged in writing extensively on the harrowing experiences of exile. Simultaneously, they have written on the emerging challenges faced by the Palestinians on return to their homeland. This article explores the theme of exile in the narratives of Sahar Khalifeh through an interpretive lens of settler colonial theory. Exile, however is experienced differently by both men and women. Indeed, women's experience of exile and impact of male exile on women has been marginalised in male narratives. The paper brings out how the Palestinian writer Sahar Khalifeh broaches the impact of Palestinian exile on both men and women as a negative and demoralising experience. The paper specifically focuses on women who are the victims of exile and their suffering – from subtle to the more conspicuous.

Keywords: Exile, Israeli occupation, identity, settler colonialism, space, time

INTRODUCTION

Sahar Khalifeh, a Palestinian author from the occupied territories of the West Bank,

has written many novels in Arabic. In the narratives of Khalifeh exile is a central and recurring motif. Her writings explore a number of significant issues associated with exile such as the hardships of dislocation, homelessness, alienation, and waiting for a day of return. Apart from this, both male and female characters of Khalifeh suffer from the isolation and the pain of displacement,

expressing the agonising uncertainty of living as a stateless citizen and the continual fear of losing hope altogether. This paper focuses upon two of Khalifeh's Arabic novels translated into English, namely *The Inheritance* (2005) and *The Image, the Icon* and *the Covenant*[1] (2008), where the representation of Palestinian female experience of exile and sufferings in the works of Khalifeh is underlined. This article addresses a number of questions - what is the impact of exile on personal life; what is the difference between male and female experiences of exile; what is the impact of male exile on female. Accordingly, the structure of the paper begins with key historical moments in the history of the Israeli-Palestinian conflict linking to the notion of Palestinian exodus of 1948 and 1967 enforced by Israeli settlers. Then it attempts to answer the above questions through discussions on the above mentioned novels.

SETTLER COLONIALISM AND DISPLACEMENT

Lorenzo Veracini, the author of the monumental work, *Settler Colonialism: A Theoretical Overview*, discusses four themes – population, sovereignty, consciousness and narrative associated with settler colonialism. He considers colonialism and settler colonialism as separate formations that often intertwine. Veracini gives a strict warning that it is wrong to consider all colonialism as settler colonialism (Veracini, 2010, p. 3). In the case of colonialism, the colonial rulers would go out to the colonies; occupy the land, exploit their resources and eventually return home. On the contrary, the settler colonialists come to the colonies to stay permanently in the occupied territories without any intention of returning home. ". . . settlers move across space and often end up permanently residing in a new locale" (Veracini, 2010, p. 3). Another theorist, Patrick Wolfe regards settler colonialism not merely as an event but as a structure (Wolfe, 2006, p. 388). The settlers eliminate the natives to own more and more land to expand their settlements. The occupied land is utilised for development and to accommodate the settlers with the intention to stay and not to leave. This is a continual process of settlers. Veracini and Wolfe present their arguments citing primary examples of settler colonial societies like Australia, the United States, Canada, South Africa and Israel. Settler colonial theory is appropriate in this case to understand the Israeli-Palestinian conflict. It helps in assessing the overarching power of the settler colonial state in its exercises such as land appropriation, displacement of the natives, and the elimination of indigenous population. Israel engages itself in building numerous settlements and checkpoints on the occupied land. It imposes restrictions on the free movement of the Palestinians in order to curb the displaced Palestinians returning to their native land from exile. In this way, Israeli colonial rule not only marginalises the native population but also tries to maintain and normalise the occupation on a day-to-day basis.

The systematic transfer of population is one of the strategies used by the settlers in order to settle on the occupied land (Veracini, 2010, p. 33). This act reduces population of the natives in a particular locale; the settlers utilise the land, resources and properties of the indigenous people on the conquered land. The process continues in the contiguous stretches. The settlers consider the presence of natives on the lands as superfluous.

ISRAELI OCCUPATION AND EXILE

Historically, Palestinians have experienced painful displacement in the wake of two wars they fought with Israel. The war of 1948 – *Al-Nakba*, or 'catastrophe', culminated in the establishment of the state of Israel as a new Jewish state. Further, the Israeli Occupation of 1967 has often been described as second stage colonisation known as *Al-Naksa* when Israeli military occupied the West Bank and the Gaza Strip. Consequently, majority of the Palestinians turned homeless and took shelter in refugee camps. Palestinians were left with two choices: to scatter around the globe or to stay inside the occupied territories compromising with the situation where they were subjected to humiliation, oppression, and to a life of daily violence or at least, the risk of violence through military orders. They work in Israeli settlements and factories as labourers and pay taxes. The inequitable distribution of local resources has a huge impact on Palestinian community and on the lives of individuals. Israeli occupation not only aggravated the exodus of Palestinians but also put restrictions on the possibility of their return. The displacements led to the division of the Palestinian community between those who left and those who stayed within the green line[2]. The best-known and most eloquent Palestinian spokesperson Edward Said has spoken on his own experience of exile in his autobiography *Out of Place*. He acknowledges the Palestinians' collective experience of exile in his narratives. He explains in *After the Last Sky*, that the *Nakba* was an outrageous event in the modern history of the Palestinians. He states that exile has caused fragmentation, dispersal and destruction of the Palestinian society. It has had a deep impact in transforming Palestinian identity as an exilic one. Said states that the Palestinians' exile has been the most extraordinary one: ". . . to have been exiled by exiles, to relive the actual process of uprooting at the hands of exiles" (Said, 2000, p. 178). Indeed, Sahar Khalifeh stays inside the occupied territories of Palestine, being an eye witness to Palestinian exile. In one of her interviews she says, "[t]he first thing they did after Occupation is they kicked the people out of the villages and pushed them towards the bridge – they wanted them to leave the West Bank and all Palestinian altogether" (Nazareth, 1980, p. 71). Since then, they have not found a permanent abode and are migrating continually suffering from displacement, loss and agony.

The largest part of Khalifeh's corpus consists of a thematic compass on the nightmares of exile and about the exiles living outside Palestine, yearning to return

to their motherland. Indeed, both men and women in Palestinian society share various kinds of exilic experiences unceasingly. Other Palestinian writers and film makers too have articulated their painful experience of exile. Muhammad Siddiq, a notable Palestinian male writer, describes Palestine itself as a "refugee nation" (Siddiq, 1995, p. 87). Darwish, Adonis, & Al-Qasim, (1984/2005, p. 30-31) say, "[w]e travel like other people, but we return to nowhere" As Said (2000, p. 173) rightly remarks, "[e]xile is not . . . a matter of choice: you are born into it, or it happens to you." Apart from these writers Raja Shehadeh, Mourid Barghouti, and Fawaz Turki, also have written extensively on their personal experiences of exile and return. However, the women's experience of exile has been largely marginalised in these narratives by the Palestinian male writers. Exile, in terms of travel, displacement, physical and mental agony, usually gets associated with men's experience of exile. There are studies on these writers who have highlighted the pain of exile in terms of socio-political, economic ramifications of exile and in terms of return to homeland (Habib, 2013; Nasser, 2014; Mir, 2015). Notwithstanding the importance of the above issues, they have also created a vacuum in depicting the women's experience of exile. The common tendency among the mainstream writers is to consign female experiences of exile mostly to the realm of the metaphorical. Khalifeh, on the other hand, represents women's experiences of exile extensively, which remains unprecedented. Nevertheless, she

also discusses the males' experiences of the same even as she presents a unique scenario of the impact of male exile on female. Scholars who have earlier worked on the narratives of Khalifeh have not identified and focused on this issue adequately (Alhawamdeh, 2015; Angierski, 2014; Mahmoud, 2014).

MALE AND FEMALE EXPERIENCE OF EXILE

The Concise Oxford English Dictionary defines exile as "the state of being barred from one's native country" (Pearsall, 1999, p. 499). Exile is entangled with various historical, political, and socio-economic issues. It comprises multiple binaries such as physical/psychological, liberated/confined, spiritual/material, individual/collective and personal/political. Each experience of exile is distinct and varies from person to person. Khalifeh presents the male experience of exile that differs from female experience of the same. More often the exile is voluntary and sometimes, non-voluntary. However, in Khalifeh's novels, majority of the male characters, irrespective of political reasons, take the voluntary decision to migrate. Khalifeh describes vividly the multiple challenges experienced by the migrating Palestinian community.

In the novel "*The Image, the Icon, and the Covenant*", Ibrahim is the narrator who constantly shares his experience of exile. He works as a teacher at the convent in Jerusalem and aspires to become a political writer. He falls in love with Mariam, yet abandons her when she becomes

pregnant. His decision of exile from his homeland is voluntary in order to escape the personal responsibilities. Ibrahim is the best illustration for an expatriate who lives voluntarily in an alien country for personal or social reasons. Expatriates feel lonely and estranged as exiles but they do not suffer from being barred. Ibrahim is neither banished nor threatened by a specific political agenda, yet he chooses to live away from homeland. He has been transferred to many places as per his job requirements. He marries several times, but does not have children. His voluntary exile is loaded with melancholy. He is utterly lost in his tenuous atmosphere in which physical movement from one place to the other is beyond his control. Exile is a hypersensitive issue as it has a deeper physical, emotional, and psychological impact on a person. "Exile is dislocation, both physical and psychic. The exile is a stranger, not seen, misperceived. The departure into absence of exile contains and will foster a will to return to presence" (Kaminsky, 1992, p. 32).

Displacement leads to alienation which in turn, makes exiles suffer. Certainly, the condition of exile has had a direct impact on the family and emotions of the individual who is in exile. Exile shatters the personal dreams and desires of a person. It restricts the person's willingness to exercise his free will. Ibrahim wants to become a renowned writer. More of his life is spent in exile than in his homeland. He feels abandoned in the politics of his country and exiled life that would not allow him to become an acclaimed writer and alienates him from writing. He says, ". . . the world of politics, exile, and worldly matters took me away from it. If I hadn't lost myself in politics and wandered the world, I would have been the greatest writer in the world" (Khalifeh, 2002/2008, p. 244). As Ibrahim recounts, his decision to go into exile is especially painful because he has to be away from his family members. Barghouthi aptly remarks "[i]t is enough for a person to go through the first experience of uprooting, to become uprooted forever" (Barghouthi, 1997/2000, p. 11). Exile drains the natural sentiments and inclination of the self that are deprived of expressing itself which cause deep sorrow and alienation. Looking back at his exile, Ibrahim says, "I had lost my capacity to feel and interact, my heart was rusty, my feelings had died" (Khalifeh, 2002/2008, p. 172).

Mariam had fallen in love with an Italian priest. This was before meeting Ibrahim, when she was in Brazil, where she was raised with many of her brothers. Apparently, someone had noticed Mariam and the priest kissing each other inside the church's premise. The priest then got transferred to another convent as a punishment for his sinful act. After this incident, Mariam was expelled from the church and was put on house arrest for some time. Later she resettled in Jerusalem with her blind mother. As Mariam develops a relation with Ibrahim in Jerusalem, she tells him the story of her exile. Being exiled, she misses her brothers, the nuns, and the family home. Ibrahim describes her as "a stranger in her homeland, a stranger in the other land, an only girl among seven

brothers, lonely amid strangers" (Khalifeh, 2002/2008, p. 42). It is apparent that for both Mariam and the priest, exile acts as a severe punishment and social stigma. For Mariam, exile becomes a cage and she feels a deep sense of separation, solitude, and boredom. Indeed, Mariam is not only the victim of her own exile, but that of Ibrahim's too, as we shall see later.

In the novel, *The Inheritance*, Nahleh and Kamal are the siblings who share their miserable experience of exile. Nahleh, a single woman, unveils her experience of exile. She leaves her home at the age of 18 to work as a teacher in Kuwait. The period of her exilic journey is for 30 years. She exiles in order to support her family and her brothers' education. She gets habituated to the life in Kuwait which offers an opportunity for her livelihood. She becomes financially independent, but her brothers communicate with her projecting pseudo affection whenever they need money and exploit her financially. She sacrifices her own personal life, and clears the family debts that had piled up. She anticipates that in future her brothers would support her and take care of her. She spends her youthful days working in Kuwait. Consequently, she wonders how her exilic years slipped one after another without her realisation. Nahleh regrets not being married. She feels vulnerable being alone in her life without marriage and children. She expresses her desire for a conjugal bond. Nahleh says, "I woke up and found myself old, without a husband, without a house, and no one to call me Mama. This is how it ended" (Khalifeh,

1997/2005, p. 52). She envies the prosperous marital lives of her brothers. ". . . I spent my youth for – living in exile! . . . Each one of them has a large family, one or two wives . . ." (Khalifeh, 1997/2005, p. 50-51). Nahleh's struggles to get married to fulfill her desire inflict psychological anguish. The marginalisation and the discrimination she suffers inside the family after her return from exile, leads to psychological ailment. She loses control over her emotions and becomes shopaholic: wears strange clothes, spends a lot of time applying cosmetics and utters strange words. Nahleh stands as a metaphor for the psychological impact of exile. Van Leeuwen (1999, p. 268) says, "[e]xile is a consciousness which is imposed by external forces, but which has been internalized and transformed into an emotional and intellectual disposition which affects every experience and every thought." Nahleh's brother, Kamal, gets a scholarship to study in Germany. He decides to flee into exile. After the completion of his education, he starts his career as a civil engineer in Germany and works there for many years. The country provides him all material comforts and medical benefits. However, he never feels he is one among them. He feels a vacuum inside his being, as he is away from his home and homeland. He prioritises his work over other things and spends his lifetime in the laboratory with machines. Yet, he is not happy with his life in the exiled country. His life in Germany becomes tediously constant and eternally bland; he defines it as "superficial" and "rootless" (Khalifeh, 1997/2005, p. 188). Therefore,

Kamal tries to forget the awful experience of exile and attempts to overcome the fear of being outside his land. Like other exiles, he too feels he has been cut off from his roots. Exile makes the individuals lose their voice and identity. Kamal in the novel repeatedly narrates his awful memories of exile and homelessness.

In the same novel Zayna, the narrator, is born in New York to a Palestinian father and an American mother. She grows up listening to the attractive stories narrated by her father, Hajj Muhammad Hamdan about the Palestinian community and home. "Most people are principally aware of one culture, one setting, one home; exiles are aware of at least two, and this plurality of vision gives rise to an awareness of simultaneous dimensions, awareness that – to borrow a phrase from music – is contrapuntal" (Said, 2000, p. 186). Zayna says, "[a]s Zayna I was caught between two languages and two cultures – my father's Brooklyn and the West Bank on one side and my maternal grandmother's American culture on the other. I was later left without any culture and lived in a vacuum" (Khalifeh, 1997/2005, p. 9). She too experiences a sort of exile in America with her dual identities; she encounters cultural, linguistic, and religious alienation. Zayna, the Americanised version of Zaynab, feels stark lack of belonging to any place. She says, "[m]y language was lost before I was lost and so was my identity. My name and address followed suit. My original name was Zaynab Hamdan, and with time it became Zayna" (Khalifeh, 1997/2005, p. 8).

IMPACT OF MALE EXILE ON WOMEN

The male exile has tremendous emotional and psychological impact on women – mother, wife, daughter, beloved or sister. Even though exile is a political rhetoric, it has deeper impact on personal lives. In the novel, *The Image, the Icon, and the Covenant*, Mariam's mother suffers for much of her life because of the exile of her husband. She grows old waiting for her husband's return. She brings up her children singlehandedly, in the absence of their father. Her children grow up, only to get into exile overseas, except a son and a daughter. She narrates her sorrowful life to Ibrahim and says, "I put up with the absence of the father, but the children too! Their father lived for forty years in exile, maybe more, while I stayed home. He would be gone for two years and return for two months to visit. Every year he would say it was the last year until he died" (Khalifeh, 2002/2008, p. 65). Thus, exile also stands for repudiation of one's own responsibilities from the males. This utter carelessness meted out is suffered by the female counterparts, who try to make up for the ignored responsibilities.

In the absence of Ibrahim, Mariam gives birth to Michael. Mariam learns Arabic and writes a novel to express and deal with her experience of exile and motherhood in a more creative way. She brings her son up without the support of Ibrahim. She is unable to celebrate her motherhood or the birth of her son Michael and is sad about it. She perceives her motherhood as a burden

and leads a reclusive life. She writes "[t] hey say that motherhood is miraculous, pure love, pure affection, sacrifice, devotion, and gratefulness, but I only feel oppression and revolt, I want to run away from my heart. Why should I be the only one tied down? . . . The pressure on my head is increasing, I am oppressed, I am lonely" (Khalifeh, 2002/2008, p. 179). Thus, Mariam remains a victim of dual exiles – her own and that of Ibrahim's, at different points in her life. But she has to bear the burden of both these exiles, when the man in exile might actually be freed to carve out his own destiny even as he is in exile.

FUZZY DICHOTOMY BETWEEN AN INSIDER AND AN OUTSIDER

Exiles isolate themselves from a particular historical period and geographical space, and are lost in space between their homeland and the migrated land. Khalifeh's novels are complicated by a peculiar fuzzy demarcation between the insider and the outsider. Khalifeh's project is rather to highlight both the experiences of Palestinians living under the occupation and those in exile. In Khalifeh's narratives Palestinians are neither contented in their homeland nor in exile. They have to struggle for their survival, both inside the occupied territories and outside the borders. Speaking about own experience of exile, the well-known Palestinian historian, Barakat (2013, p. 143) says, "[t]o be honest, the cynicism I confronted in myself and others under Occupation in Palestine should have provided a kind of immunity for the cynicism of exile outside Palestine. But

what I learned is that exile within is as brutal as exile outside." Therefore, the life within the occupied territories could be likened to a kind of 'internal exile' that Palestinians might experience in their own land. Both ways, the fate of a Palestinian is sealed – to be an exile.

Within occupied territories, outsiders are treated with respect in comparison to the insiders. Ambitious parents aspire for the departure of their children in search of 'greener pastures' for the safety of their life, for livelihood and their wellbeing. In the novel *The Inheritance*, Abu Jaber Hamdan expresses his happiness over the fact that his sons and a daughter are in foreign countries. He is disappointed about his younger son, Mazen, who was the one without any education and a formal degree and who is still in the occupied territory. He is a revolutionary, a victim of a mine explosion during the time of *Intifada*[3], Mazen does not exile to another country to earn his livelihood. The father calls Mazen, "the real problem" (Khalifeh, 1997/2005, p. 32). He feels his sons who are living outside have a better life when compared to the son who is the victim of Israeli violence. Jaber discourages another of his sons, Kamal, who wishes to return from Germany. Kamal writes in a letter, "[f]ather, their world is merciless" (Khalifeh, 1997/2005, p. 155). He receives an earnest reply from the father saying, "[d]on't make the mistake of coming back. I have enough dealing with Mazen and his problems. Here, we have unemployment and war worries. Please, please, for my sake, be wise and do not make rash decisions"

(Khalifeh, 1997/2005, p. 155). Khalifeh's novel emphasises contradictory ideas of the insider and the outsider. Mazen is an insider, a revolutionary and a staunch follower of Guevara[4]. Kamal often narrates his dreadful days of exile to Mazen. He calls his brothers in exile as "merchants, slaves, opportunists, upstarts, and bourgeois" (Khalifeh, 1997/2005, p. 217). Mazen feels that living as an insider, he has balanced his life in his homeland enduring pain and suffering under Israeli Occupation.

Mazen's beloved Violet was born and raised in Palestine, and wishes to leave the country. She had already worked with Nahleh in Kuwait. After her return, she feels unhappy staying in her homeland. She dreams of migrating to America. She imagines that her life in America would be extremely prosperous and peaceful in comparison to the life in her country. She feels Westerners have more freedom and liberty to enjoy their life. On the other hand, she views her own people, especially men as conservative and patriarchal in their attitude, who try to fulfill their male fantasies through the institution of marriage. Mazen discourages her idea of migration and tries to convince her that those who are in exile yearn for their return to their homeland. According to Mazen, leaving one's country is an offence and amounts to deserting one's duty.

However, Mazen is forced to change his perspective in the course of time. His uncle's wife Futna, who delivers a baby, struggles between life and death at the checkpoint. She bleeds heavily and is in need of immediate medical care. At this critical situation, the Israeli soldiers at Kiryat Rahil checkpoint refuse to allow the ambulance which carries Futna. Mazen is helpless because his efforts to convince the Israeli soldier go in vain. After a prolonged wait, Futna dies at the checkpoint. This is a moment of remorse for Mazen as he feels guilty, pessimistic and regrets not achieving anything staying in the homeland. He says "[s]ometimes I feel as if I were suffocating and I wish I could get out of my skin and run away to Frankfurt or Berlin like Kamal, who ran off to save his skin. But I stayed inside my skin and my own skin is too tight for me" (Khalifeh, 1997/2005, p. 242). Khalifeh's characters express their anxieties and existential dilemmas regarding their decision to be either an insider or an outsider. They encounter a series of oppositions, antinomies and contradictions regarding their decision to exile. An insider wants to be an outsider and vice-versa. They are perplexed by their own decisions.

TIME AND EXILE

Exile has an intricate and hostile relationship with time. The exiles struggle against the temporal conflicts of the past, present and future. As Ilie (1980, p. 62) contends, "time functions as a stifling force." Exiles focus more on the past which dwells in nostalgic melancholy. On the other hand, the exiled person has been eventually absent from the present time of his or her country. Rather, they live in the present of their host country. "The time of the exile is different. Or rather, the exile lives in two different

times simultaneously, in the present and in the past" (McClennen, 2004, p. 32). Time and space have become a problem for Khalifeh's characters who return from exile. The Palestinians try to forget the frustrating experiences of exile once they return to their homeland. Unfortunately, they suffer from nostalgia and are unable to engage with the present. In *The Image, the Icon, and the Covenant*, Ibrahim plans to return in search of his beloved Mariam and his son, Michael whom he had left in the course of his exilic life. He regrets his decision of voluntary exile. He remembers his beloved and scribbles about his life without her. After 20 years of exile, he recalls his past and his beloved Mariam. "It was my memory, my first love, and a part of history. Today I am a man without a present, without Mariam and without history" (Khalifeh, 2002/2008, p. 1). Ibrahim is aware that his past life does not fetch happiness, so he tries to forget his exilic past. However, he is optimistic about his future and dreams to be with them for the rest of his life. He says, "I began looking for the past and here I am looking for the future. Mariam was the thread of the past, and her son will be that of the future" (Khalifeh, 2002/2008, p. 157). Ibrahim's character is an illustration of an exile who struggles between different time zones – that of the past, present and future.

Exiles have often been obsessed with recording their past life spent in exile. One of the prominent Palestinian women writers, Liyana Badr, writes "[e]xile. Nothing is as painful as an exile; it stretches ahead into

the future, and back into the past, and bursts through on every side at the place we've dammed up with the dry straw of memories" (Badr, 1979/1989, p. 74). Both Kamal and Nahleh remember their exilic past and they are unable to engage themselves with the present in any manner. Their past is understood in the light of the present and vice versa. The present is uncertain and they struggle hard to cope with the existing situation of their country. For Nahleh, who leaves her home as a teenager, time moves in an expeditious manner without her realisation. As an exile, she is unable to have control over the cyclical movement of time and consequently, on her own life. She is not aware of the valuable time she has spent working in the exiled country. Her feelings of loneliness and her efforts to combat the signs of aging make her life miserable. She feels that her youth was stolen from her by the years she spent in exile. She experiences timelessness which makes her lonely, loveless, and miserable. Zaynab notes that Nahleh "had once been beautiful, fresh, young, and full of love and feelings, then she had been hit with the realisation that she was fifty, homeless, aimless, and unsatisfied" (Khalifeh, 1997/2005, p. 72). The journey of exile never ends at a certain point. As Said rightly remarks, "Palestinian life is scattered, discontinuous, marked by the artificial and imposed arrangements of interrupted or confined space, by the dislocation and unsynchronized rhythms of disturbed time" (Said, 1986, p. 20).

CONCLUSION

As a writer, Sahar Khalifeh not only represents Palestinian suffering and displacement but also the Palestinian lives under momentous consequences of Israeli occupation. Every case of exile is unique. Khalifeh's depiction of female and male characters reflects different contexts that provoked them to be in exile and the challenges they faced. They recall their sorrowful exilic days spontaneously from the captivation of memory. Mariam's mother, Mariam and Nahleh, all suffer from loneliness their entire life, longing to attain the unattainable. Both Mariam and her mother suffer throughout their life because of the absence of their male counterparts. For Nahleh, both exile and return leave a deep psychological scar. Ibrahim and Kamal express a strong sense of helplessness, self-pity, cultural isolation and detachment from homeland. Mazen catches the dilemma as to where to be an exile – at home or abroad. Thus, Khalifeh's representation of the realities of Palestinian exile produces characters that try to make up for the absence of the males at home, long to fulfill their desires that have been deferred, suffer in exile as they try to reconcile inside their homeland, attempt to reconnect with time, to stitch the temporal fragmentation.

NOTES

[1] Khalifeh's novel "al-Mirath", written in 1997 has been translated into English as "*The Inheritance*". Her award-winning novel "Surawaayqunawa 'ahdunqadim", written in 2002 has been translated into English as "*The Image, the Icon and the Covenant*." This novel is the winner of The Naguib Mahfouz Medal for Literature in 2006. These two novels have been translated by Aida Bamia. She is a professor of Arabic language and literature at the University of Florida in Gainesville.

[2] The green line refers to the border separating pre-1967 Israel from the occupied Palestinian territories. It is an internationally recognised border.

[3] Literally means shaking off or awakening; refers to the Palestinian uprising that began in December 1987.

[4] The well-known Argentinean born Cuban revolutionary leader, Che Guevara.

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SOCIAL SCIENCES & HUMANITIES

The Curious Incidence of Individual Empowerment

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ABSTRACT

The literature on Autism has been considered marginal but developing. Various writers and critics in the field have tried to set forth a more palpable attitude of this form of disability while missing and/or escaping one crucial question: does Autism make possible an advantageous ground for the autistic person? In other words, what is the semantic role of the slash in dis/ability? This study directs this question through a literary case of the novel "The Curious Incident of the Dog in the Night-time" by Mark Haddon. The process and result of such analysis is directive in both providing us with a new paradigm of autism, as well as exemplifying strategies through which the autistic person performs progressively. In this respect, the concept of individual empowerment, theorised by Elisheva Sadan, holds the axle of analysis. In the scope of this research, Haddon's novel proves to be a formative ground for redefining autism in its current manipulation, a source of self-reliance and inner-outer evaluator which processes socio-communal inputs given to it in order to systematise the action/reactions of the autistic person. Meanwhile, this study concludes with suggestions on how an autistic person can filter and organise his environment to perform distinctly and productively.

Keywords: Autism, critical consciousness, Elisheva Sadan, empowerment, Mark Haddon, practitioner

INTRODUCTION

"We live today in what I call a 'runaway world', a world marked by new risks and uncertainties […] but we should place the notion of trust alongside that of risk" (Giddens, 2009, p. 99).

Rather than sparkling a perceptive consciousness of the dynamic world

surrounding each individual, Giddens' theory can operate as an impetus for Christopher Boone, the protagonist-narrator of Haddon's novel, to reflect on the exigency and possibility of building trust. Having encountered such equivocal of sociology, a normal[1] participant starts searching for the proper partner/agent with whom the trust is established. However, considering ASD, Christopher's character breaks through the presuppositions around the susceptibility of interpersonal communication prior to his acceptance of any partner/agent[2].

Since autistic studies are controversial, articles in this research invites readers to actively participate in the horizon of the disclosure that this analysis addresses. The readers' flexibility in adopting contextual positions is recommended: first, to activate a mode of subjectivity parallel to that of Christopher's; second, to facilitate reading

in an ethnographical view which (re)situates projections of ability or disability, and ends in giving an affiliated definition of norm/al (Muller, 2006). Experiences of environment, limited by estimations of autism, have undermined Christopher's behavioural assumptions to a state of ephemeral cognitive relations and decisions (Freißmann, 2008). His subordinate realisation is identical with the genre of detective novel which reinforces a condition of scepticism, fortified by features of ASD as another reason for suspecting normalised ideas of trust, social value and, in a large scale, communal obedience (Ciocia, 2009). Third, to criticise Christopher of having a narrow prospect of social conducts is a response developed by a surface reading of the novel, although an ethical reading encourages the presence of a more responsive reader who is less likely to misread symptoms of disability (Wooden, 2011). Another verifier of Christopher's deficiency in associating with environmental frames is the absence of any tendency for expressing partnership; the adamant inclination of the pronoun "I" extends the existing gap between him and others (Semino, 2011). Eventually, the isolated image of Christopher is marked to be a consequence of his attempt to penetrate the internalised social norms, in maintaining independence from the rigid forums of social life (Blackford, 2013). The semi-delusional aspect of autism amplifies the improbability of the establishment of certitude and/or a reciprocal relationship through separating the affected person from the culturally presumed facts.

[1]The terms *norm* and *normal* in this article deal with Foucault's theory in "Truth and Power". The triad of "normalization, sexuality, and power" is inclusively presented as the contingent sequel of "ideology" and "repression" anticipated by Marx and Freud, respectively, which is dominant through all aspects of interpersonal and/or communal relationships (Foucault, 1980, p.117)

[2]Communication-crisis is a pivotal concern in major discussions of ASD. The insistence on sameness, resistance to change, and behavioral inflexibility have been defining characteristics of ASD and linked to social impairment (Cotugno, 2009). Nevertheless, the emphasis on augmentative communication suggests that the agent of communication is more fundamental than the termination (Perry & Condillac, 2003)

Despite the supposed discernment of ASD which is destined to enclose the volition and practice of an autistic person, Haddon's novel conceives potential interpretations of disability beyond the naturalised surveillances of society. Indeed to violate a simplistic understanding of the work, it is vital to bring up the question whether Christopher is an amenable social figure with no intentions or authority or a mutant, but distinct participant? Consequently, the answer would direct us toward a more practical concept of disabled people that exceeds the prevailing attitudes about disablement. The current paper benefits from theoretical grounds signified by Elisheva Sadan through proficiencies of empowerment, since her explanation sets forth the idea of social functioning and political connectedness of all individuals: "Since empowerment is not a particular quality of a person, but an important condition for his existence, its realization must correspond to the most diverse (theoretically, at least, the infinite) number of human variations" (Sadan, 2004, p. 79).

Subsequently, the objective of the current discussion is to highlight those manifest comportments and character-descriptions in the novel that elucidate supersessions of Christopher's ASD as an advantageous condition through which he actualises forms of individual empowerment within a self-developed agency. Here, it is discussed that Christopher relies on his supposed difference and exalts its favourable attributes to extricate himself from exclusive dispositions of trust-in-communal-norms/ normalisations[3] rather than focusing on stigmatising emblems of autism that force the person to be dependent on mediums of communication.

MATERIALS AND METHODS

Transcribing the Social Environment: Christopher's Role-Structuration

The inclination of social environment, as milieu for bringing up and schematising individuals, has obtained instructive and irrefutable significations. The environmental trend is prone to suppress individual discrepancies, in order to adjust and control interpersonal relationship, and replace them with conceptualisations of unison. In Mannheim's view: "Every individual is therefore in a two-fold sense predetermined by the fact of growing up in a society: on the one hand he finds a ready-made situation and on the other he finds in that situation performed patterns of thought and conduct" (Mannheim, 1954, p. 3). Societal administrations of interpersonal performances are established on the presumption that people are supposedly

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[3]Opposition to socially approved alignments, argued within Christopher's character, resembles common configurations of isolated individuals in gender studies. In textual projections of "hegemonic" gender (masculinity/femininity) most adolescent members question and criticise normalised provisions of the hegemonic group (Gill, 2008). Repugnancies of this kind are the main causes of seclusion and bewilderment that lead in "reshaping of identity", applied by the individual him/herself (Malaby & Esh, 2012, p. 40)

obliged to act analogously to regain or consolidate order. This form of adaptability is declared by Giddens through the term "socialization":

> The process whereby the helpless human infant gradually becomes a self-aware, knowledgeable person, skilled in the ways of the culture into which he or she was born. All societies have characteristics that endure over long stretches of time, even though their existing members die and new ones are born. (Giddens, 2009, p. 284)

Each person is thrown into a labyrinth of prescribed formulations that regulate his behaviour and frame his future decisions and pertaining attitudes. Meanwhile, Corbett's (1965) analysis of this function of social life sheds light on the notion of generalisation wherewith behavioural anticipation is activated: "We cannot act in the world or think about it without implicitly relying on the validity of some generalizations; it is largely on their rationality that the rationality of my life depends. But, what supports a generalization? Experience" (p. 158).

Christopher's initial experience of social environment is pictured in finding the dead Wellington. His camera-like description of the murder scene followed by the struggle with the two officers and other swift occurrences evoke Christopher's latent, though fixed, rationalisation of his surroundings; a type of self-reflexive conduct that ends in the confirmation of the first introspective I-statement: "I like dogs. You always know what a dog is thinking. It has four moods. Happy, sad, cross and concentrating" (Haddon, 2003, p. 4). While empathising with the dog, Christopher implicitly expresses further angles of communal practice: firstly, his readiness for building up social rapport with an external element, Wellington, and second, his demand for a cohesive relationship which is reflected by the insistence on predictability. No matter how radical the choice of a dead dog seems in the evaluations of more normalised practitioners, the realisation illuminates a hidden potency in Christopher to leave his isolation, even though it is done through a non-human entity. This mode of unification with the other exemplifies the ironic point in Sadan's (2004) study of both the primary step toward empowerment as well as its ultimate goal: "Empowerment means coming out of the limited boundaries of the *I* into the expanse of possibilities of *we*" (p. 81).

Despite the fact that stages of self-presentation and self-stabilisation are interconnected with the actions of outside inductors, Christopher advances to set his personal conduct(s) aloof of expectations of social normalisation to confine his possible interpretation of the communal trust. While alluding to classifications of collective-loneliness, Christopher shows diverse products of communication once he

distinguishes himself from any other child at school reaffirming that, "I'm not a spazzer, which means spastic, not like Francis, who is a spazzer" (Haddon, 2003, p.15). Looking at illness innovatively, aspects of disability can be productive for disabled and/or abled bodies: "The world of illness provides a repertoire of constructs which can be employed in setting out our attitudes to other matters of social significance" (Billig, Condor & Edwards, 1988, p. 86). Thereupon, further specifications of prudence are carried out along with Christopher's generalisation on communicative discourse.

Another module for ascertaining order (ability to rationalise) is the procedure through which Christopher approbates members of his community. Christopher is withheld of the ability to perceive meanings in metonymic or imperative dialects due to constraints of autism. The research done by Milne and Griffiths on this autistic paradigm shows that children with ASD display a very literal, pragmatic understanding of the spoken word (Milne & Griffiths, 2007). Therefore, Christopher's choice of Siobhan as the trustee who understands the complexity of his situation introduces the first practitioner of his community. While planting the idea of writing about Wellington's case and encouraging Christopher all through the process, Siobhan performs correspondently to Sadan's description of advocate who "must not neglect her responsibility as a leader, and she must not incline in the opposite direction, of excessive directing and taking control of people" (Sadan, 2004, p. 123).

In addition to Siobhan's attempt for stimulating a ground of textual connection[4] with Christopher's autism, the act of writing reveals tacit facts about the inadequacies of people in charge of Christopher. Among various instances of misunderstanding within social relationships, Christopher's experience with his father is crucial for having a more accurate analysis of the limits of communalisation in disability. Results connotes to the theory of interactional vandalism which appears through lingual artefacts more persistently than physical violations (Giddens, 2009, p. 262). Bilateral failure of interaction results in Christopher's refusal of the father, as a factual medium, and invokes alternatives for his role. Since a more flexible member is needed to act based on restrictions of Christopher's community, Sadan's authorisation of sensitizer proves to be an adequate candidate, the inductor who performs "in a variety of methods of intervention, with the objective of providing people with the maximal opportunities of understanding themselves and their environment" (Sadan, 2004, p.122). The introverted, self-reliant attributions of Christopher while facing mysteries, on the one hand, and his formulation of facts and science(s), on the other, exhorts him toward choosing the fictional character of Sherlock

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[4]Literature, and especially books directed to adolescent, establishes an atmosphere of mutual understanding between the abled and disabled parties of communication which broadens their attitudes of the concept of ability regardless of more normalised definitions (Curwood, 2013)

Holmes as the sensitiser. Christopher harmonises elements of the advocate and sensitiser as he merges them with his proficiency and expectation of the client. Regarding the tenets of empowerment, primary stages of change are conveyed through the client's emancipation from normalised constraints as he invalidates them and through the redefinition (recitation) of his preference(s) (Sadan, 2004, p.121). Representations of the client-role enables Christopher to express not only his discontent with the environment, but also possible incompetence in hegemonies of social conduct.

RESULTS

Awakened Critical Consciousness: Christopher's Performance in Community

Society is permanently alert and attentive toward utilising efficient mediums in order to acculturate and subjugate more marginalised individuals. The essence of *routine* implemented in this process protects it from being noticed (or criticised) easily by the mediums who are performing to its advantage. In other words, the persistency of cultural and national morals together with more universal depicts depend on the existence of such inductors who assist the formation and institutionalisation of social disciplines. But in his article, "Two Lectures", presented in January 1976, Foucault explains about the inherent opposition to the social configuration by emphasising the dual role of normalised codifications:

The disciplines have their own discourse. They engender [. . .] apparatuses of knowledge (savoir) and a multiplicity of new domains of understanding. They are extraordinarily inventive participants in the order of these knowledge-producing apparatuses. Disciplines are the bearers of a discourse, but this cannot be the discourse of right, the discourse of discipline has nothing in common with that of laws, rule, or sovereign will [...] The code they [disciplines] come to define is not that of law but that of normalization. Their reference is to a theoretical horizon which of necessity has nothing in common with the edifice of right. (Foucault, 1976, p. 106)

The father character as a representative of social components is a bearer of certain presumptions about how to behave through/with disability, albeit the fact that his establishment of familial disciplines is more affined to his desolate condition. Father's inconsistency in codifying productive modules of interpersonal relation with Christopher, and his mere focus on the subversive hypotheses of communication via discipline, ends in conflicts which threaten their existing interrelationship.

Some outcomes of physical tension between the two characters are caused by the incoherent manners conveyed by Father in his arguments; like the times he starts shouting at and interrupting Christopher,

ignorant of the false impact such behaviours have on an autistic child. Distortions of auditory-process and sensitivity to loud voices which are dominant among people with ASD have been discussed as influential stimulus for provoking extreme oppositions to environmental disturbances (Tomchek & Dunn, 2007). Having observed instances of environmental (familial) malfunctioning, Christopher engages in methods of re-evaluating his community by extending his reliability on roles of advocate and sensitiser. His first rebellious decision is pictured through re-starting to search and write about Wellington's death-mystery. With regard to Sadan's analysis of progressing individuals and communities, types of resistance to external strains prove to be inseparable from the frames of individual empowerment:

> Empowerment is a process of internal and external change. The internal process is the person's sense of belief in her ability to make decisions and to solve her own problems. The external change finds expression in the ability to act and to implement the practical knowledge, the information, the skills, the capabilities and the other new resources acquired in the course of the process. (Sadan, 2004, p. 76)

Proven to be capable in solving puzzles (modelling after Sherlock Holms) and determined to act like a qualified detective, Christopher remains meticulous about any clues that might guide him to find the killer. His persistence is accentuated with the father's confession: "I killed Wellington, Christopher" (Haddon, 2003, p. 69). Evidently, the exploration succeeds in discovering the truth about Wellington's death and the absence of his mother, as well as disjointing Christopher from the last strings of trust in external mediums.

Excessive unveiling of errors in communal factors surrounding Christopher negates the functioning of the supposed equilibrium necessary for his interaction. Grievous scenes of reinforced ASD is thus presented in his impotent attempt to regain balance. The expression "extreme autistic aloneness", as Sula Wolff defines, is allocated to this kind of disorder which is followed by indications such as "abnormal speech with echolalia, pronominal reversal, literalness and inability to use language for communication; and monotonous, repetitive behaviours with an 'anxiously' obsessive desire for the maintenance of sameness" (Sadan, 2004, p. 203). For Christopher to procure the former quiescence means to leave the source of tumult, his Father, and seek refuge in his personal code of security (balance). Since no other external element is qualified or permitted to enter his domain of re-establishing order, Christopher explicates a course of solace in his community, that is, observing the stars. This method of meditation also gives him the courage to criticise the culturally accepted opinion on one specific group of stars named Orion, which marks a man holding a bow and introduce other convenient alternatives for the same shape.
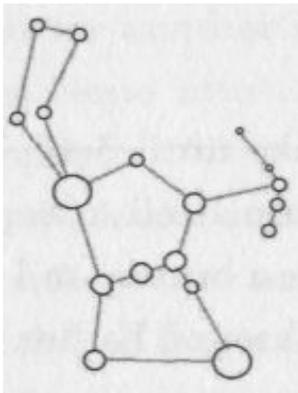
Figure 1. Constellation of stars as Orion
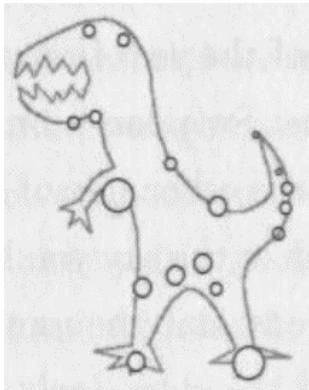
Figure 2. Christopher's constellation of stars as a dinosaur

But this is really silly because it is just stars, and you could join up the dots in any way you wanted, and you could make it look like a lady with an umbrella who is waving, or the coffeemaker which Mrs Shears has, which is from Italy, with a handle and steam coming out, or like a dinosaur (Haddon, 2004, p. 71).

The community's ideological acceptance of this habit of naming-after-stars, its obedience to religion and perception of metaphysical concepts are objected by Christopher through his trust in science and genealogical thinking. The allusive usage of stars in this narrative highlights the fact that there is no absolute value incarnated in social representations, yet labelling stems from a national or ethnic relativism within that society.

Doubt in familial bonds blends with a re-evaluation of more general threads in the society; while providing Christopher with the opportunity to criticise the *worldview*[5] of those exterior to his conduct. Sadan's appreciation of the indispensable and prominent criticism of interactional presuppositions gives credit to the configuration of critical consciousness, "[which] is the process by means of which people acquire an increasingly greater understanding of the cultural-social conditions that shape their lives, and of the context of their ability to change these conditions" (Sadan, 2004, p. 82). Immediately after Christopher liberates himself from the bondages of such cultural-social segments, his critical consciousness

[5]Worldview (Weltanschauung) that facilitates the way to create a unified view of the people within a society, those who share a common history and culture; a careful study of worldview may, also, lead us to criticise the false evaluation or devious perceptions of the social participants (Macrae, 1961, p. 64)

is awakened to tranquilise the condition for seeking a method of problem-solving appropriate to his current dilemma. Hence, when his gratification of the stars relieves him from the chaotic entrapments of the environment, Christopher works out the fear of being close to his father, now considered as the source of danger (insecurity) through his distinguished skill in mathematics[6]; the closure of this phase is noticed by Christopher's decisiveness to leave for his mother in London.

DISCUSSION

Relief in Praxis: Empowered Christopher

Pondering the scope of empowerment, the individual is destined to abolish his current social partialities and suspend weakening adherences of the cultural-social custom in order to reflect on the acquisitive schemes of his new community. However, each participant envisages a definite status for the maintenance and progress of his conduct together with organising a pattern to reach the ultimate objective. The efficacy of the performance of such regulation is maintained by Sadan in the manipulative idea of "Praxis": "[. . .] a way of learning that integrates activity and thinking about activity. In this method, the critical conscious is integrated into social activity, and is not separated from it" (Sadan, 2004,

p. 211). Accordingly, rather than being content with a shallow functionality of critical consciousness, each person is obliged to apply it within a progressive plan for transcending his empowered state. Attentive notifications on the synthesis of plan and practice render the centralisation of pragmatics essential for having a stratum of empowering-jargon. Pragmatic thinking and performance, in this sight, rises against the classical exacerbations of the individual's dependence on the presence(s) of external mediums which carry the credibility for activating and directing the impact(s) of planning through the process of empowerment. The differentiation Sadan makes between the already-existing role of external motivator and the newly-born idea of internal collaborator is understood through the contextual division she establishes by describing them as expert and reflective practitioner respectively:

> The expert presents a total knowledge in planning and solutions despite his own uncertainty, while the reflective practitioner sees his uncertainty as a source of learning for himself and for others possessing relevant knowledge on the situation. While the expert keeps a professional distance and transmits warmth and sympathy in what he considers the requisite dosage, the reflective planner seeks an emotional and intellectual connection with people. (Sadan, 2004, p. 189)

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[6]"**Fear**total = **Fear**new place X **Fear**near Father = constant" (Haddon, 2003, p. 77).

Sadan's empowerment offers an exposure to the practitioner-role in the sense that its subject-formation is realised by the individual's agreement in lieu of the official compromise. Performance of the reflective practitioner is, thus, circumscribed to the responsibilities assigned for the individual in his interaction with the collected knowledge/experience of the environment as well as his success in self-consolation.

Upon his decision to leave home, Christopher substitutes the client position with that of a practitioner; schemes of praxis are visible through his endeavour to find the Swindon train station and cope with the difficulties thereafter. While searching for the station, Christopher shows social intrusions through his interactional convulsion with the world outside. There, the influx of different sounds and the hurried crowd agitate impulses of nervous disorder in Christopher and cause him an intense feeling of environmental anxiety. In line with his experience of communicating with others, Christopher is incapable of building trust in other passengers. Hence, few scenes that escape Christopher's obsessed narrative provide us with images of people offering to help him, though all is rejected either through a sort of mind-blackout or by his emotional seclusion. Emotional impairment is studied and acknowledged by Happé's observation of ASD since she describes autistic applicants to be "rarely seeking and using other people for comfort and affection at times of stress or distress and/or offering comfort and affection to others when they are showing distress or unhappiness" (Happé, 1994, p. 78).

With respect to the authorities of a practitioner, propagating knowledge proceeds other factors in order to restore a promising state for the actualisation of praxis. Managing to stabilise mental order over the turmoil of the status quo requires Christopher to probe and recollect his consciousness of the tactics of sociability. During the time Christopher reflects on his survey of the communicational knowledge, not only does he approve of the individual authentication within the environment, but also adopts proper codes transferred from his advocate/client principles. Concerning the first trial of praxis, Siobhan's advice is declared as a resort upon which Christopher starts disentangling himself from penetrative forces in the milieu. The following description traces Christopher's furtive manner of linking with and appreciating his advocate the moment he feels threatened by social interferences. "So I took lots of deep breaths like Siobhan says I have to do if someone hits me at school, and I counted 50 breaths and I concentrated very hard on the numbers and did their cubes as I said them. And that made the hurt less painful" (Haddon, 2003, p. 78). Intuitive examination of the self and others sets forth apparatuses of community, and results in Christopher's insistence on the disclosure of the available and valid paradigms which can assist him in tackling with the environmental stress.

Christopher adjusts the other module of praxis, concurrent to that of the

advocate's assertion, while displaying signs of being reconciled with the situation. The statement ends up by revealing the fact that the prerequisite task of the advocate is intertwined with the salient knowledge of numeration. The second agency of praxis, thus, emerges from the orientation of Christopher's ingenuity in simulating numerical metonyms so as to be displacements of/from the social burden. The absence of consistency in the comportment(s) of the external operant on the one hand, and the credence he grants to inner deductions on the other, invites Christopher to look for more subjective reliefs. The premium role of the subjective (self)-relief is activated once the individual applies it intelligently, as a strategy of confrontation against the nuisance of his environment. Ultimately, further registrations of math problems are given as codes of praxis wherewith Christopher claims control over his agonised mental state. It is through one such example that Christopher allows the reader to engage in a more precise analysis of what it means to solve a math problem, as he explains about the game, "Conway Soldier", a collaborative process is shaped through Christopher's narration. "It is a good maths problem to do in your head when you don't want to think about something else because you can make it as complicated as you need to fill your brain" (Haddon, 2003, p. 85).

The subsequent emprise of Christopher in order to finalise the course of praxis is to concentrate on the implementation of

visual aids. Environmental-observation is treated as a filtering custom in the quest for receiving intensive delegations of order. Therefore, absorbing replicas of stability conveys the alteration of what is perceived to a more eligible mediator which advances the liberation of the individual (client). The NCSE research contributes to the remedial supplementation of visual utterances elucidating that:

> Studies employed visual techniques or video modelling procedures in interventions to facilitate play and/or social initiations and interactions [...] They build on current good practice in the field, promoting use of visual support and video modelling and taking into account the relative strength in visual skills of children with ASD. These approaches also recognize the importance of developing observation skills in children and that observation and imitation may be important avenues for learning. The studies indicate that video modelling can present different social situations in a predictable and controllable way, thereby allowing extraneous features to be filtered out and thus potentially making learning easier for the child with autism (Parson et al., 2009, p. 60).

Although in their encounter with environmental fluctuations there is a great probability of invoking perplex responses,

autistic practitioners are predicted to, first, select visual segments of social coercion and, next, start rationalising upon the schema of images in eradicating a conflict by focalising their (practitioners') attention on something favorably organised.

Detestable circumstances within the prospect of Christopher compels him to employ visual designs in order to regulate and frame the environment. His vigilant choice of *patterned* pictures or objects fabricates a sovereign mode for assigning prototypes of cohesion. The binary impact of this selection leads in Christopher's disconnectedness, from the complaints inherent in lingual associations[7], while setting a personalised dialect whereby therapeutic communication is validated. One unique projection of his switch from the immobilising constitutions of society into the tranquilised sphere of pictures is represented by Christopher on his way to Willesden Junction. Being unnerved under the chaotic bustle of people in the cabin, Christopher says:

> And there were 11 people in the carriage and I didn't like being in a room with 11 people in a tunnel,

so I concentrated on things in the carriage [...] And there was a pattern on the walls which was like this:
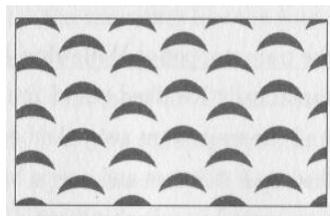
Figure 3. Patterns of walls in the train

And there was a pattern on the seats like this: (Haddon, 2003, p. 108-109)
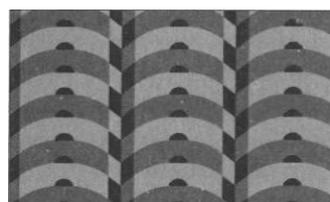
Figure 4. Patterns on seats in the train

Metonyms of order are visible through the organised layouts of these photos whose repeated patterns correspond to Christopher's urge for mental systematisation of the environment. As claimed by the meditative supervisions upon societal inputs, postulates of praxis are fulfilled in the instant Christopher manages to arrive at his mother's apartment in London. The triumphant feeling Christopher acquires through finding his mother in London is discussed as equivalent to a powerful authentication testifying to his merit in the community.

[7]Stefania Ciocia's article demonstrates the performance of visual aids within Christopher's manipulation of his surrounding(s), emphasising that "the text also relies on a variety of media and visual effects - charts, graphs, drawings, logos, photographs, etc., in what is perhaps its most immediate, if implicit, indictment of the representational limitations of conventional linguistic signs" (Cioca, 2009)

Stages following the accomplishment of praxis denote the construction of another quest invoked by the individual within his self to redefine and relocate his potencies and abilities. The individual, now, has achieved peculiar indicatives of capability that legitimise his imminent identity-formation. To this aim Sadan argues that affirmative and productive attachments of self are kindled along with the process of individual empowerment:

> Individual empowerment is a process of personal development. The process involves both a development of skills and abilities, and a more positive self-definition. People testify to a better feeling about themselves, a sense of more self-respect and self-esteem. A new self-confidence and a feeling of self-efficacy are connected with a redefinition of the self, and the latter is closely linked with a real improvement in personal knowledge, abilities, skills, resources and life opportunities. A higher level of personal activity makes possible more effective inter-personal relations. (Sadan, 2004, p. 84)

Since the practitioner has exposed his success, he is certified to ascertain personal approvals, disciplines, concerns, as well as being discharged of the deterrent effects of self-condemnation. In short, the concluding grades of individual empowerment magnify and revolve around the flourishing of self-respect.

Whilst Christopher recalls one of his recurring dreams, the elegant conduct of self-respect is summoned by sophistications on the premises that celebrate his separation in the society. Indeed, the dream's content allegorises the superiority of self (Christopher) over normalised attendants whose performances and their very dissimilarities have been sources of anxiety. Thus through a widespread and deadly disease in his dream, Christopher's desire in the day-time turns into a comforting reality in the night-time. Here, the genuine disclosure of the dream reveals itself in Christopher's appreciation of the elimination of *otherness* as he recollects, " … and eventually there is no one left in the world except people who don't look at other people's faces and who don't know what these pictures mean" (Haddon, 2003, p. 117).
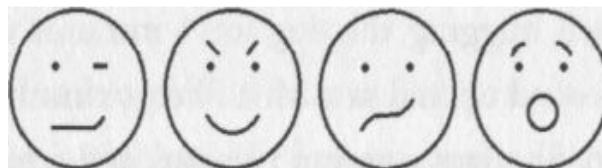
Figure 5. Simplified jargons of facial expressions communicated within a society

In this regard, validating personal distinctions and favoring his variant cognition are manifest within Christopher's satire of the ambiguity in/of social communication(s), which is taken for granted by its abundant usage and normative presumption upon interpersonal relations. Having reassessed attributions of self and environment, Christopher acknowledges his opportunity to dispense with figments of the exaggerated self and delve into a feeling of self-consent wherewith future arrangement is conceivable. One persuasive yield of this course is shown in Christopher's persistence on having math A-level exam.

The expedition of the individual empowerment motivates the decisive stabilisation of the client's efficacy for performing ex cathedra. Validation of the participant's empowered state is actualised through his inspection of the result. In Sadan's formulation, the ultimate practice of empowerment is proclaimed in the word "evaluation" as she clarifies, "This stage is supposed to be implemented at the conclusion of the project, and it examines whether, and to what extent, the community planning project has achieved its goals" (Sadan, 2004, p. 257). Thereby, it depends on the participant's(s') mark that the productivity of an empowering process is justified. For Christopher, the activation of the evaluating stage occurs as a consequence of his passing math A-level exams, which is both a verification of the competence within the agency and a support to his planning for objectives of further empowering processes. Through the following notes, not only are

we invited to take part in Christopher's satisfaction of his self and environment, but we can also picture his delight in the sequel of thriving for being empowered, "And I got the results of my maths A level and I got an A grade, which is the best result, and it made me feel like this" (Haddon, 2003, p. 128-129).
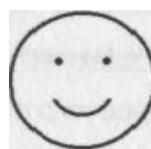
Figure 6. Christopher's expression after Math A-level exam

CONCLUSION

Upon its way to declare confrontation with environmental repressions, Haddon's novel offers unconventional techniques of change which represent peculiar methods of fidelity to Sadan's approach on the individual empowerment. Regarding the exceptional circumstances brought forth through the autistic character of Christopher, the current discussion has stepped beyond the prevalent studies of individual empowerment, more or less grounded on normal clients into the criteria of supposedly disordered characters. Thus saying, three fundamental structures of individual empowerment within ASD practitioners are framed as:

a) **Concentrating on the specific capabilities of the autistic character** that provide the individual with an outlook of the things he is able to do without the interference or the force

of an outside medium. In the case of Christopher, this paradigm was shown by his meticulous analysis of the objects/places he observed along with his interest in science and logic. By focusing on how characters learn to explore their own efficacies, the threats of getting indulged in the dichotomies of disempowering conducts are removed since the character is encouraged to reason upon the world and posit himself accordingly.

b) **Determining replacements for real advocates** is essential to ensure that the character's selection of the non-real advocate is justified based on his type of illness or disability. It is noteworthy that while being conscious about the complexities of choice, the practitioner can pick uncommon advocates in order to determine his convenience in the conduct. The examples provided by this novel introduce some fictional, or dead figures, who take part in Christopher's community and perform as proper models.

c) **Assigning roles with definite responsibilities**; although the autistic individual is supposed to feel protected in the community, this is not the same as acting irresponsibly and reluctantly. Indeed, the autistic character who had found himself capable of building a community needs to support it with a variety of strategies and tactics. The very fact of being alert about the community's performance (capabilities)

makes the ASD character responsible for the survival of his conduct. Through these responsibilities, the client learns how to identify with irreplaceable competencies that cannot be transferred to any other participant. Thus, the character realises the need for remaining active in order to fulfil the procedure of change from the disempowered situation.

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PERTANIKA
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An Economic Valuation of Urban Green Spaces in Kuala Lumpur City

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ABSTRACT

An economic value of urban green space (UGS) in Kuala Lumpur (KL) city is estimated in this study. A global model and a local model are formulated based on hedonic price method. The global and local models were analysed with an Ordinary Least Squares (OLS) regression and a Geographically Weighted Regression (GWR) respectively. Both the models were compares to see which model offered a better result. The results of OLS regression illustrated that Titiwangsa and Forest Research Institute Malaysia (FRIM) offer the highest economic value for model 2 and 3 respectively. The results of GWR determined that the economic value of an UGS can be analysed by the region. The GWR result revealed that FRIM provides high economic value to all the residential areas in KL city. However, the economic value of Titiwangsa is not valuable for the residential areas in KL city including Mont Kiara Pines, Jinjang Selatan, Segambut Garden, Bandar Menjalara and Taman Bukit Maluri. As a conclusion, even though Titiwangsa generates the highest economic value, it is only significant at certain residential areas as proved by the local model. In terms of model application, the local model performed better than the global model.

Keywords: Economic valuation, geographically weighted regression model, hedonic pricing model, urban green space

INTRODUCTION

The urban green space (UGS) can be defined as the range of urban vegetation, including open spaces, parks, residential gardens, street trees and any other vegetation located around the urban environment (Pietsch, 2012). According to Saphores and Li (2012), the position of the UGS in cities is increasing worldwide as a result of the expansion of urban land fueled by urbanisation. City areas with a lot of greenery are aesthetically pleasing and attractive to residents and investors.

Based on the Kuala Lumpur (KL) City Plan 2020 in The Star Online (2008), the city expressed a vision of a network of high quality, accessible parks and economic generation to assist KL in becoming a more attractive city to live in and work at. The implementation of the greening city may create a more comfortable living environment and provide space for healthy recreational activities. Moreover, the beautification of KL has been one of the factors that attracted significant foreign investments to Malaysia and boosted the country's rapid economic growth. Overall, urban green spaces have provided indispensable elements of aesthetic, ecological, recreational and economic values. The economic values include property prices (Sadeghian & Vardanyan, 2013). Due to the demand and benefits of UGS, the UGS in KL should be preserved.

In Malaysia, Yusof (2012) stated that the urban area of KL has almost tripled in area since the 1950s; it is currently 243 km². Unfortunately, Yaakup (2005) predicted that KL has lost nearly 50% of its green spaces, mainly to residential development to cater for the population increase and some industrial development. Tyrvainen (2001) also beleived that industrial development activities could diminish the values of UGS.

As reported in KL Structure Plan 2020, currently, the total areas of UGS in KL city only represents 6.5% of total land use and the amount that is available as public UGS is even less when private green spaces such as field golf are excluded. This issue has caused general concern among local authorities. Various efforts have been taken by them to protect and maintain the existence of UGS. However, it is noticed that existing statutes and policies over a recent decade were not sufficiently strong with regard to the protection they afforded to green spaces in KL. Luttik (2000), and Zhuo and Parves Rana (2012) claimed that it is not easy to come to a clear conclusion about the effectiveness of existing arrangement for protecting UGS without much more information, especially in terms of monetary value.

In the case of Malaysia, Mohd Noor, Asmawi and Abdullah (2015) is one of the earliest ones that have a concern about this issue. They conducted a study about the economic valuation of UGS in Subang Jaya, Selangor. However, KL city which is the highest percentage of diminished green area was not included in their study. It would be much useful if an analysis of economic valuation of UGS is conducted in KL city. At least it will offer valuable information especially in terms of monetary

value of urban green space to the real estate developers. Other than that, it will help the government authorities to improve their future policy specifically about land use and development part by developing a comprehensive improvement of monitoring the provision, extent, and condition of green space more thoroughly based on the monetary information.

Therefore, the economic value of the UGS, specifically in KL city, will be estimated in this study. By using the hedonic pricing method (HPM), the economic value obtained in this study will prove the value of UGS in monetary value. The HPM based on the ordinary least square (OLS) regression and geographically weighted regression (GWR), together with geographic information systems (GIS) are employed. This study reveals the specific residential areas in KL city which are able to generate economic value of UGSs. At the same time, this study also helps the local authorities to develop a comprehensive improvement of monitoring the provision, extent, and condition of green space more thoroughly based on monetary information. Lastly, this study will contribute to the literature since there are limited studies conducted in Malaysia regarding the economic valuation of UGSs using GWR.

LITERATURE REVIEW

HPM is widely used to measure the economic value of UGS (Zhuo & Parves Rana, 2012). Its value can be predicted from the prices of related actual market house transaction (Kong, Yin, & Nakagoshi, 2007). House prices are regressed against sets of control variables. It includes structural attributes of a house, neighborhood variables, and environmental attributes.

Chin and Chau (2003) believed that the property prices are associated with their structural attributes. It includes size of building lot, number of rooms and building age (Saphore & Li, 2012; Kong et al., 2007; Morancho, 2003). However, Morancho (2003) mentioned that size of ancillary in the building is also relatively important to the house price. Forrest, Glen, and Ward (1996) stated that lot size also has a significant effect on house price. All of them concluded that any functional space is considered to have a significant relationship with the house price. Other than structural attributes of the house, Geoghegan (2002) mentioned that the shortest distance between town and the house which is considered to be neighborhood variable also has a significant relationship with the house price.

Additionally, most of the previous studies proved that environmental attributes work well towards the house price. They believed that there is an inverse relationship between distance and property price (Boyer & Polasky, 2004; Cho, Bowker, & Park, 2006; Cho, Poudyal, & Roberts, 2008; Gibbon et al., 2013; Morancho, 2003; Tajima, 2003;). Most of them also proved that there is a positive relationship between the size of UGS and property price (Boyer & Polasky, 2004; Cho et al., 2008; Morancho, 2003). It shows that UGS has an important economic value.

Based on previous studies, all the reviewed variables seem to have a significant effect on the house price. Previous studies outside Malaysia have proven that the urban green space attributes including the size of urban green space and its distance to the residential area are important factors for house price. Therefore, all these variables are used to estimate the economic value of UGS in KL city.

METHODS

The house price is used in order to measure the implicit value of UGS based on UGS attributes (that is, the distance between the residential area and the UGS and the size of the UGS).

Based on Valuation and Property Service Department, the total number of residential units in Kuala Lumpur in 2013 was 424,324. Although it would be useful to utilise all the 424, 324 units of house, the data collection cost would be prohibitive and take very long. Hence, a random sampling scheme was employed. The sample size was calculated based on a 95% confidence level within a ± 5% range of accuracy of the total housing units. Based on Krejcie and Morgan's (1970) specification, the minimum number of sample size was 384. However, due to data availability, the final sample size in this study was 372 units of houses.

Cross sectional data for 372 sample housing units in 2013 was used in this study. This includes data from 10 residential areas and 14 urban green spaces (two forest reserves and 12 recreational parks). The residential areas included Mont Kiara

Pines, Mont Kiara the Residents, Bandar Manjalara, Kepong Baru, Taman Bukit Maluri, Jinjang Selatan, Jinjang Utara, Kepong Garden, Segambut Garden, and Desa Park City. The urban green spaces included Bukit Nanas, Batu Caves, Bukit Lagong, Dataran Merdeka, Desa Park City, Forest Research Institute Malaysia (FRIM), KL City Centre (KLCC), Taman Tasik Permaisuri, Pudu Ulu, Rimba Bukit Kiara, Taman Tasik Perdana, Taman Tasik Titiwangsa, Taman Sains Rimba and Universiti Malaya Forest (UMF).

There are six strategic zones in KL. However, the residential areas of this study focused on Sentul-Menjalara zone for several reasons, one of which is that it has the largest population (445,000 persons), land size (4657 hectares) and highest residential units (137,097 units of houses). However, due to data availability, there are only ten residential areas involved in this study, while the list of UGSs in this study focused on public green space with four subcategories known as district parks, city parks, local parks and neighborhood parks. These parks are classified as well known parks, have good physical structure of facilities, level of naturalness, safety and are easily accessible by the public.

The data for independent variables were divided into three parts, namely, housing structures, neighborhood attributes, and UGS attributes. The data about housing structures and UGS attributes were gathered from the Valuation and Property Service Department while the neighborhood attributes and UGS attributes data were gathered from GIS

Software. GIS software was used in this study because the availability of GIS data on environmental attributes has increased the detail and flexibility with which these attributes can be associated with house locations. The data about the number of rooms, size of the ancillary (m²), size of the building lot (m²), size of the lot (m²), age of house (year) and shortest distance to town (km) are categorised as housing structures.

The shortest distance to town (km) is categorised as neighborhood attribute. The distance between the residential area and the UGS (km), as well as the size of the UGS per house (m²) is categorised as the UGS attributes. The coordinates of the center of each UGS and 372 housing unit are captured to measure the distance between UGS and residential areas. The size of UGS per house is measured as follows:

$$size\ of\ UGS\ per\ house = \frac{size\ of\ UGS}{size\ of\ the\ lot\ for\ each\ houses} \qquad [1]$$

The house price represents dependent variable. Any type of apartment, semi-detached house, and terraced house is considered as house in this study.

An economic valuation of the UGS is estimated using the HPM. The traditional HPM model takes on the following form:

$$P = f\left(x_1, x_2,...,x_n, E_i\right) \qquad [2]$$

where P is the house price, x_i, x_2, x_n are the housing structures and E_i is the environmental attribute variables. In this study, environmental attributes are reflected as UGS attributes.

Based on equation [2], the appropriate equation can be formulated as:

$$P = \alpha + a_1 x_1 + a_2 x_2 + ... + a_n x_n + b_i E_i + \varepsilon_i \quad [3]$$

However, the logarithmic specification is formulated in this study since there are no reasons to expect the relationship between the price and the environmental variable or attribute to be linear (Kong et al., 2007). In addition, it is able to normalise the data and reduce the numbers; this makes the interpretation easier. Thus, equation [3] can be expressed as:

$$\ln P = \alpha + a_1 \ln x_1 + a_2 \ln x_2 + ... + a_n \ln x_n + b_i \ln E_i + \varepsilon_i \qquad [4]$$

In this study, the HPM is formulated in two types of models: the global model and the local model. Global models are statements about processes which are assumed to be stationary and location independent. Local models are the spatial disaggregation of global models, the results of which are location-specific. The purpose of using two types of HPM model is to examine whether the local model offers an improvement over

the global model. In this study, six models are formulated based on the global model and local model.

Three global models based on the HPM are formulated in this study. Model 1 represents the relationship between the housing structure and the housing price. Model 2 represents the relationship between the housing structure together with the distance between the residential area and the UGS and the housing price. Model 3 represents the relationship between the housing structure together with the size of the UGS and the housing price. All these three models can be written based on equation [4]. The global model is regressed by using OLS regression.

The implicit economic value (EC) of the UGS is measured by using the house price. The EC of UGS are evaluated based on the following calculation:

$$EC = \frac{coefficient\ of\ each\ variables}{100} \times \frac{mean\ of\ house\ price\ for\ the\ shortest}{distance\ between\ UGS\ and\ house\ unit} \quad [5]$$

The GWR technique is a statistical methodology useful in exploring and describing spatial data, especially when spatial non-stationary relationships prevail (Brunsdon, Fotheringham, & Charlton, 1998; Jaimes, Sendra, Delgado, & Plata, 2010; Yu, 2007). This regression is conducted using localised points within the geographic space. Thus, it is assumed that the relationship may present variations that are dependent on the location, which is well-defined by a pair of prototype coordinates (u,v) (Fotheringham et al., 2003).

Fundaentally, the GWR specification is similar, except that the coefficients are estimated at each observation point (Bitter, Mulligan, & Dall'erba, 2006):

$$y_i = \alpha_0 + \sum_k \beta_k(u_i, v_i) x_{k,i} + \varepsilon_i \quad [6]$$

where

Y_i = dependent variables at location i

$x_{k,i}$ = kth independent variables at location i

ε_i = Gaussian error at location i

(u_i, v_i) = x-y coordinate of the ith location

$\beta_k(u_i, v_i)$ = coefficient of kth independent variables at location i

The coefficients $\beta_k(u_i, v_i)$ varyied conditionally at the location. The first variable is usually constant by setting $x_{0i}=1$, after which $\beta_0(u_i, v_i)$ becomes a geographically varying 'intercept' term.

As adopted and modified by Jaimes et al. (2010), the GWR involved in this study can be formulated as:

$$\ln P = \alpha_0(u_i, v_i) + \beta_1(u_i, v_i)\ln x_1 + ... + \beta_n(u_i, v_i)\ln E_n + \varepsilon_i \quad [7]$$

Based on equation [7], Model 4,5 and 6 were developed. Model 4 represent the relationship between house structure and house price. Model 5 represents the relationship between the housing structure together with the distance between the residential area and the UGS and the housing price. Model 6 represents the relationship between the housing structure together with the size of the UGS and the housing price. All these three local models are regressed by using GWR.

The expected sign and detailed explanation for each variable involved in all the models are illustrated in Table 1.

Table 1
Expected sign and explanations for each variable

Variables	Definition of the variables	Expected sign
Size of ancillary	self-contained living accommodation on the same lot as a single house that may be attached or detached from the single house occupied by members of the same family as the occupants of the main dwelling (Residential Design Codes, April 2008)	+/-
Size of building lot	Size of house itself	+
Size of lot	Size of total land for each house area	+
Number of rooms	Number of rooms per house	+
Age of house	Age of house counting from completed build until year 2013	-
Shortest distance to town	The shortest distance between the residential area and central town	-
Distance between UGS and residential areas	The distance between central of UGS and each of house location at all residential areas in KL city	-
Size of UGS per house	Size of UGS for each 372 houses	+

RESULTS AND DISCUSSION

The adjusted R^2 and t-statistics values for all the global models were examined. Table 2 presents the summary of the variables' statistics.

Table 2
Model variables and basic statistics

Variables	Mean	Standard deviation	Minimum	Maximum
Dependent Variable				
Housing Price (RM)	682864	784512.9	32000	7700000
Housing Structure Variables				
Size of ancillary (Sa)	26.53	27.74	0	252
Size of building lot (Sbl)	139.80	69.32	9	595

Table 2 *(continue)*

Variables	Mean	Standard deviation	Minimum	Maximum
Size of lot (Sl)	178.70	112.64	80	894
Age of house (A)	26.13	13.02	3	62
Number of room (Nr)	3.42	0.69	1	8
Shortest distance to town (Sdt)	14.38	3.33	8	18.32
Environmental Attribute Variables				
Distance between UGSs and residential areas (km)				
1. Bukit Lagong (Dbl)	10.72	2.67	7.2	16.2
2. Bukit Nanas (Dbn)	12.97	2.04	5.9	16.04
3. FRIM (Dfrim)	9.55	2.63	5	15
4. Desa Park City (Ddpc)	4.90	2.85	0.2	11.23
5. Taman Tasik Perdana (Dttp)	12.89	2.28	6.6	15.84
6. Taman Tasik Titiwangsa (Dttt)	12.67	2.20	4.9	16.04
7. KLCC (Dklcc)	15.20	2.05	7.5	19.2
8. Dataran Merdeka (Ddm)	12.28	2.03	5	15.44
9. Batu Caves (Dbc)	11.28	1.64	5.9	13.34
10. Taman Tasik Permaisuri(Dtp)	21.23	2.18	14.9	24.43
11. Pudu Ulu (Dpu)	19.99	2.43	12.7	24.3
12. Rimba Bukit Kiara (Drbk)	10.11	2.16	7.5	14.9
13. Taman Sains Rimba (Dtsr)	5.88	2.76	1.5	12.2
14. UM Forest (Dumf)	14.96	2.68	9.4	19.23
Size of UGS per house (m²)				
1. Bukit Lagong (Sbl)	116963	159145	9868.5	755550.2
2. Bukit Nanas (Sbn)	375.06	504.98	98	2403.15
3. FRIM (Sfrim)	18535.8	24956.43	4843.28	118766.1
4. Desa Park City (Sdpc)	1594.43	2146.72	416.61	10216.1
5. Taman Tasik Perdana (Sttp)	1910.51	2572.30	499.2	12241.39
6. Taman Tasik Titiwangsa (Sttt)	97.32	131.35	25.07	614.76
7. KLCC (sklcc)	617.86	831.88	161.44	3958.87
8. Dataran Merdeka (Sdm)	1265.30	1703.58	330.61	8107.24
9. Batu Caves (Sbc)	60927.81	90717.9	13598.1	1026784
10. Taman Tasik Permaisuri (Stp)	1805567	12309979	4851.18	1.03E+08
11. Pudu Ulu (Spu)	15064.76	22430.54	3362.21	253878.5
12. Rimba Bukit Kiara (Srbk)	107546	160129.6	24002.52	1812416
13. Taman Sains Rimba (Stsr)	6752.69	10054.35	1507.09	113799.5
14. UM Forest (Sumf)	11313.2	16844.7	2524.92	190655.6

Note: These statistics are for 372 observations of housing units in the city of KL

The results of the three global models are illustrated in Table 3. Based on model 1, half of the house structures were found to be statistically significant with expected sign. These are size of lot, size of building lot and age of house. The results also show that the housing price grows by 0.5%, 0.06%, and 2.2% for every unit increase in size of lot, size of building lot, and decrease in the age of house respectively.

Based on model 2, the house structures were only statistically significant for the size of ancillary, size of lot and size of building lot with the expected sign. For environmental attributes, only two UGS were statistically significant with negative sign. They were Pudu Ulu and Titiwangsa. From model 2, the results show that a reduction of 50 meters of distance from residential area to the nearest UGS (Titiwangsa) increases the price of house by RM6600. The reduction of 130 meters of distance from residential area to the nearest UGS (Pudu Ulu) increases the price of house by RM1000. The distance between the residential area and Taman Sains Rimba was also statistically significant, but with a positive sign. Donovon and Butry (2011) state this may occur for two possible reasons. First, although parks are generally viewed as a positive amenity, Troy and Grove (2008) found that neighborhood proximity to a park reduced the sales price of a house in high-crime locations. Second, the distance to a park may correlate with an omitted, positive neighborhood amenity. For example, houses that are further away from parks may tend to be closer to shops or restaurants, which could increase the house price. In addition, Saphores and Li (2012) found that the opposite effect is reflected in the landscaping taste.

Residential areas close to Batu Caves, Rimba Bukit Kiara, UM Forest, KLCC, Desa Park City, FRIM and Bukit Lagong would increase the value of the housing price. However, these coefficients were statistically insignificant. The distance between the residential area and Permaisuri, Dataran Merdeka, Tasik Perdana and Bukit Nanas were also statistically insignificant.

For model 3, all housing structures were statistically significant with expected sign. For environmental attributes, only four UGSs were statistically significant with positive sign. They were FRIM, Permaisuri, Pudu Ulu, and UM Forest. From model 3, the results show that an increase in the size of the FRIM by 60,000 m^2 led to RM 323,000 increase in the house price. An increase in the size of the Pudu Ulu by 3500 m^2 led to RM 69,000 increase in the house price. An increase in the size of the UM Forest by 2600 m^2 led to RM 100,000 increase in the house price. An increase in the size of the Permaisuri by 5100 m^2 led to RM340 increase in the house price. This expected result was supported by Ishikawa and Fukushige (2012). The size of UGS (Bukit Lagong, KLCC, and Dataran Merdeka) was also statistically significant but with negative sign. The size of UGS (Desa Park City and Tasik Perdana) would increase the house price but these variables were statistically insignificant. The size of

UGS (Taman Sains Rimba, Rimba Bukit Kiara, Batu Caves, Titiwangsa, and Bukit Nanas) was also statistically insignificant.

The rationale of regressing three models for OLS Regression is to do a robustness test. Based on the estimated coefficients for model 2 and model 3, the house structure attributes are robust. It can be seen through the coefficient of house structure attribute for model 2 and 3 is not much different with house structure attribute for model 1. Then, this study intends to compare which variable offers the highest house price. In other words, the environmental attributes that have high economic value are probed. Based on these three models, it proved that the house prices are more influenced by the size of UGS (model 3) that is, the size of FRIM compared to the distance between UGS and residential area (model 2). It is determined based on the largest value of increasing house price. Model 3 also attained the highest significance level. Overall, the performance of all the global models were satisfactory, as reflected by adjusted R^2 and AIC in the analysis.

The results of the global models exposed a significant relationship between the house prices and some of the housing attributes, together with the UGS attributes. However, the relationship was constructed upon the theory of a stationary housing price, which is likely untenable. Hence, a GWR model was conducted to examine and explore such non-stationarity. The ANOVA Test of local model against the global model and the results of the GWR model are presented in Tables 4 and 5, respectively.

The AIC and adjusted R^2 values in Table 4 clearly illustrate that each local model exhibited a significant improvement over the global model. The AIC for all local models was smaller than the global models. This finding suggests that the local model performed better than the global model, even after the complexity of the GWR is taken into account. These findings are consistent with the empirical work by Yu (2007). In addition, the increase in the adjusted R^2 clearly confirms that the local model explains the variance considerably better than the global model. The level of the variance explanation increased considerably, obtaining an adjusted value of 76%, 74%, and 73% which were 13%, 3%, and 3% more than the global model respectively.

Table 5 exhibits the results of the local model. The local parameter estimates vary at each of the 372 observation points. They are described by their median, minimum (min) and maximum (max) values, as well as their interquartile range. For model 4, the geographical variability was only significant for certain house structures. There were size of ancillary, size of building, size of lot, and age of house. For model 5, the geographical variability was significant for the distance between UGS and residential areas except the distance between UGS (Bukit Nanas, Pudu Ulu, and FRIM) and the residential areas there.

Table 3
Global OLS regression result

Statistic Intercept	Model 1			Model 2			Model 3		
	Estimate	Std error	t-value	Estimate	Std error	t-value	Estimate	Std error	t-value
Sa	12.91	0.0010	-0.2849	-0.0021	0.0012	-1.7716*	-0.0024	0.0012	-2.0417**
Sbl	0.15	0.0006	8.0922***	0.0033	0.0006	5.5847***	0.0039	0.0006	6.8930***
Sl	84.27***	0.0003	2.0384**	0.0016	0.0003	5.5310***	0.0010	0.0006	1.8122**
A	20.43	0.0022	-10.1321***	-0.0026	0.0035	-0.7364	-0.0177	0.0028	-6.2241***
Nr	4.85	0.0391	0.2135	-0.0307	0.0392	-0.7816	-0.0512	0.0405	-1.2627
Sdt	4.21***	0.0068	0.5446	-0.0017	0.0112	-0.1501	-0.0117	0.0087	-1.3527*
Dbl	-133.57			-0.5092	0.7287	-0.6987			
Dbn	44.79			0.0066	0.3462	0.0191			
Dfrim	-2.98***			-0.1851	0.7073	-0.2617			
Ddpc	-0.0003			-0.0672	0.1166	-0.576			
Dttp	0.0046			0.5985	0.7724	0.7748			
Dttt	0.0006			-1.5372	0.6809	-2.2575**			
Dklcc	-0.0219			-0.0687	0.4874	-0.1410			
Ddm	0.0083			1.1591	1.1591	1.0389			
Dbc	0.0037			-0.2687	0.4021	-0.6680			
Dtp				0.4861	0.5988	0.8117			
Dpu				-0.2252	0.1032	-2.1834**			
Drbk				-0.5770	0.5127	-1.1254			
Dtsr				0.8162	0.3406	2.3960***			
Dumf				-0.2327	0.4599	-0.5060			
Sbl							-0.2935	0.1509	-1.9457**
Sbn							-4.2522	8.1268	-0.5232
Sfrim							47.2509	8.002	5.9049***
Sdpc							19.0545	15.9890	1.1917
Sttp							20.3375	15.9335	1.2764
Sttt							-0.0358	0.1508	-0.2371
Sklcc							-29.6269	11.6713	-2.5384***
Sdm							-52.1317	10.169	-5.1265***
Sbc							-13.2153	14.5025	-0.9112
Stp							0.0535	0.021	2.5434**
Spu							10.1484	7.0325	1.4431*
Srbk							-2.1820	6.1972	-0.3521
Stsr							-9.518	14.4195	-0.6600
Sum f							14.6387	6.0631	2.4144***
Adjusted R^2	0.6279			0.7078			0.6870		
AIC	389.1325			312.5860			338.1722		

Note: ***, ** and * denote significance at the 1%, 5% and 10% significance levels, respectively The value in parentheses ( ) contain the t-values. A critical value for t-test is assigned on 372 degrees of freedom = 1.282 (10%), = 1.645 (5%), and = 2.326(1%).

Table 4
ANOVA test of GWR against global model

Source	SS	DF	MS	F
Model 1				
Global Residuals	59.386	365.000		
GWR Improvement	25.389	46.099	0.551	
GWR Residuals	33.997	318.901	0.107	5.166
GWR Akaike Information Criterion (AIC) = 266.221649 (OLS = 389.132530); GWR adjusted R^2 = 0.756110 (OLS =0.627926)				
Model 2				
Global Residuals	44.836	351.000		
GWR Improvement	6.255	13.008	0.481	
GWR Residuals	38.582	337.992	0.114	4.212
GWR Akaike Information Criterion (AIC) = 275.355 (OLS = 312.586); GWR adjusted R^2 =0.739 (OLS =0.708)				
Model 3				
Global Residuals	48.029	351.000		
GWR Improvement	7.470	14.243	0.524	
GWR Residuals	40.559	336.757	0.120	4.354
GWR Akaike Information Criterion (AIC) = 294.103 (OLS = 338.172); GWR adjusted R^2 =0.725 (0.687)				

SS = Sum of Squares; DF = Degree of Freedoms; MS = Residual Mean Square

Table 5
Test for non-stationarity and GWR result

Independent variable	Min	Lower quantile	Median	Up Quantile	Max	DIFF of criterion	F-value
Model 1							
Intercept	11.6375	11.7518	12.1799	12.4386	13.7666	-679.031	-27623.6673
Sa	-0.0148	-0.0017	-0.0013	0.0022	0.0102	-31.0068	6.8236***
Sbl	0.0015	0.0025	0.0027	0.0063	0.0110	-13.7546	4.428***
Sl	-0.0057	0.0010	0.0019	0.002	0.0021	-20.992	5.5809***
A	-0.0490	-0.0289	-0.0098	-0.006	0.0761	-7.1581	3.4766
Nr	-0.2723	-0.0071	0.0509	0.1446	0.1989	4.4442	1.6952
Sdt	-0.0001	0.0091	0.0246	0.027	0.0518	3.8525	1.5593
Model 2							
Intercept	10.9657	13.9874	21.0262	24.1640	54.110	-99.1152	111.739***
Sa	-0.0097	-0.005	-0.0033	0.001	0.0022	-25.1992	17.7596***
Sbl	0.0025	0.0027	0.0033	0.004	0.0022	-2.3433	4.1063**
Sl	0.0007	0.0014	0.0017	0.0021	0.0021	-3.578	5.6717***
A	-0.0060	-0.0049	-0.0013	0.0008	0.0154	-1.6627	3.9901**
Nr	-0.0682	-0.0140	0.0145	0.0430	0.0566	-0.2878	2.4793*

Table 5 *(continue)*

Independent variable	Min	Lower quantile	Median	Up Quantile	Max	DIFF of criterion	F-value
Sdt	-0.0078	-0.0013	0.0008	0.0013	0.0041	0.5564	1.1656
Dbl	-4.129	-2.1120	-1.1463	-1.0218	-0.200	-9.1192	31.7538***
Dfrim	0.0657	0.7299	0.8717	2.0481	3.5974	-604.110	-582.6205
Ddp	-1.0225	-0.8646	-0.2671	-0.0095	0.0721	-5.3178	10.4874***
Dbn	-0.0988	0.0065	0.0184	0.0501	0.1646	-150.151	-6761.983
Dttp	-2.7482	-1.3898	0.6734	1.1508	1.8029	-14.4125	290.8893***
Dttt	-5.3459	-1.4665	-1.1492	5.1116	9.428	-1.0083	5.3178**
Dklcc	-0.594	-0.2099	0.2009	0.2279	0.574	-11.7649	83.0954***
Ddm	-8.1182	-4.0478	0.2813	0.569199	8.1693	-2.4090	8.6606***
Dbc	-7.4072	-4.0478	0.2813	0.5692	0.0331	-3.6660	18.0748***
Dtp	-0.3436	-0.0691	-0.0393	0.0372	0.5957	-721.872	2706.575***
Dpu	-0.5785	-0.303	-0.0802	-0.0596	0.1944	-16.1198	-126.2818
Drbk	-2.4675	-1.6797	-0.9878	-0.8692	-0.394	-25.768	82.878***
Dtsr	-1.6824	-0.6603	0.5408	0.6143	6.8997	-1.7978	9.3244***
Dumf	-0.2439	0.1797	0.27	1.8712	2.4611	-26.7893	41.7936***
Model 3							
Intercept	-207.501	-190.8124	-152.572	-115.4952	-87.524	-413.925	773.8182***
Sa	0.0031	-0.0040	-0.0029	0.001	0.0042	-15.9717	17.083***
Sbl	0.0031	0.0033	0.0036	0.0039	0.0042	-5.7907	9.8140***
Sl	-0.0002	0.0001	0.0014	0.0020	0.0027	-15.3969	20.3295***
A	-0.0277	-0.019	-0.0144	-0.0099	-0.006	-10.9431	17.5488***
Nr	-0.0678	-0.0252	-0.0144	0.0058	0.0150	-12.522	19.4233 ***
Sdt	-0.0178	-0.0006	0.0021	0.0043	0.0084	-7.912	14.122***
Sbl	-0.5556	-0.4119	-0.2817	-0.0540	0.0047	-175.719	654.1582***
Sbn	-17.5303	-13.1024	-7.8798	-3.987	7.2103	-323.021	-905.1021
Sfrim	28.8429	36.7713	47.468	61.6104	65.766	-48.0939	108.2666***
Sdpc	-2.6411	8.1367	11.368	14.0194	18.381	-178.109	544.8212***
Sttp	12.3921	18.3222	28.0636	33.8624	42.648	-238.689	735.1984***
Sttt	-0.0443	-0.0416	0.0380	0.0981	0.1906	-160.979	8292.6535
Sklcc	-45.6123	-40.1537	-34.051	-27.9376	-18.04	-252.99	1642.355***
Sdm	-50.4571	-45.3933	-43.204	-40.5432	-38.40	-20.1147	48.0169***
Sbc	-29.4896	-22.2096	-15.530	-9.9963	-6.659	-531.785	1039.391***
Stp	0.033	0.03726	0.0457	0.0477	0.0618	-19.1422	315.6145***
Spu	0.079	5.2236	7.6526	9.2014	13.732	-575.722	842.7798***
Srbk	-7.8332	-4.7726	3.7241	9.6962	15.109	-630.795	4730.081***
Stsr	-13.2033	-10.1062	-8.5584	-5.7247	2.2695	-1710.41	576642.0631***
Sumf	5.3269	12.1906	12.5049	15.2889	20.264	-1352.88	50541.27***

Note: Positive value of diff-Criterion (AICc, AIC, BIC/MDL or CV) suggests no spatial variability in terms of model selection criteria

F test: in case of no spatial variability, the F statistics follows the F distribution of DOF for F test.

For model 6, geographical variability was significant for most sizes of UGS except Bukit Nanas and Titiwangsa. The result justifies that the significant non-stationarity relationships between the house price and house attributes, together with the UGS attributes, exists in certain locations in KL city. This indicates strong evidence that house prices are not constant and can vary over space and locations within KL city.

For model 4, the interquartile ranges of the local GWR estimates were the possible magnitudes. However, the min and max values were counterintuitive in some of the cases. They were the size of ancillary, number of rooms and shortest distance to town. It is estimated that the size of ancillary, number of rooms, and shortest distance to town ranged from -0.015 to 0.01, -0.272 to 0.2, and -0.001 to 0.05 respectively. The negative values for size of ancillary and number of room reflects that reduction in the size of ancillary and number of rooms increase the house price at certain locations. Meanwhile, the positive values for the shortest distance to town depicts that increase in the distance to town will increase the house price at

certain locations. For model 5, the min and max values for the UGS attributes (distance between UGS and residential areas) were also found to be counterintuitive at most of the distances between them (UGS and residential areas). They were the distance between residential areas and UGS (FRIM, Desa Park City, Bukit Nanas, Tasik Perdana, Titiwangsa, KLCC, Dataran Merdeka, Batu Caves, Permaisuri, Taman Sains Rimba, and UM Forest). The positive values for the distance between them depicts that the raising of the distance between UGS mentioned above and residential areas will increase the house price at certain locations. For model 6, the min and max values for environmental attributes (size of UGS) were also counterintuitive. It consists of the size of Bukit Lagong, Bukit Nanas, Desa Park City, Taman Tasik Titiwangsa, KLCC, Dataran Merdeka, Batu Caves, Rimba Bukit Kiara, and Taman Sains Rimba. The negative values for environmental attributes show that reduction in the size of UGS will increase the price of house at certain locations.

One advantage of the GWR is that spatial distribution is inherent in the parameter

estimates and can easily be visualised. Figure 1, Figure 2 andd Figure 3 illustrate the parameter estimate surfaces of each individual attribute's coefficient that were significant at different significance levels (1%, 5%, and 10%). These results were determined by the F-value. The local R^2 surfaces for each local model are presented in Figure 4.

The map in Figure 1, Figure 2 and Figure 3 reveal that the relationship between the house structures and the house prices is not necessarily significant with the expected sign at each of the residential areas (house locations) in KL city. The same goes for the

relationship between the UGS attributes and the house price.

For model 4 as illustrated in Figure 1, the size of ancillary and size of building lot were statistically significant with expected sign at each of the residential areas. For the size of lot and age of house, statistical significance with expected sign was also found at each residential area in KL city except in the south west. For model 5 as illustrated in Figure 2, the distance between the residential area and Bukit Lagong, Desa Park City, Batu Caves and Rimba Bukit Kiara were negatively significance in each of residential area in KL city.
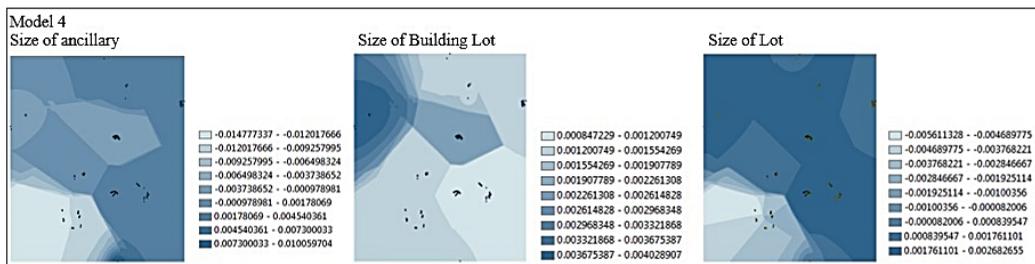
Figure 1. Spatial distribution of the parameter estimates of each variable that is statistically significant on geographical variability for Model 4
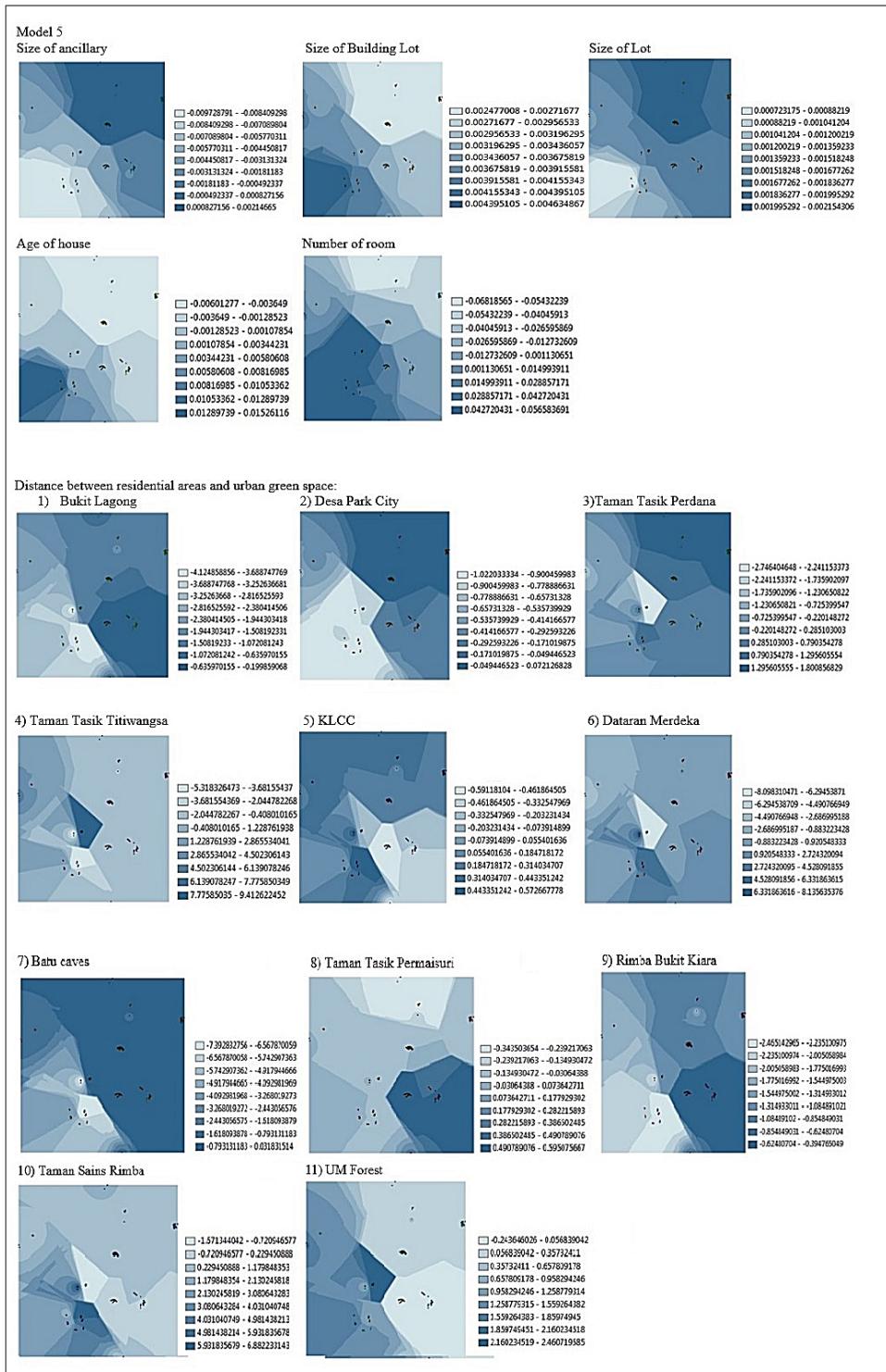
Figure 2. Spatial distribution of the parameter estimates of each variable that is statistically significant on geographical variability for Model 5
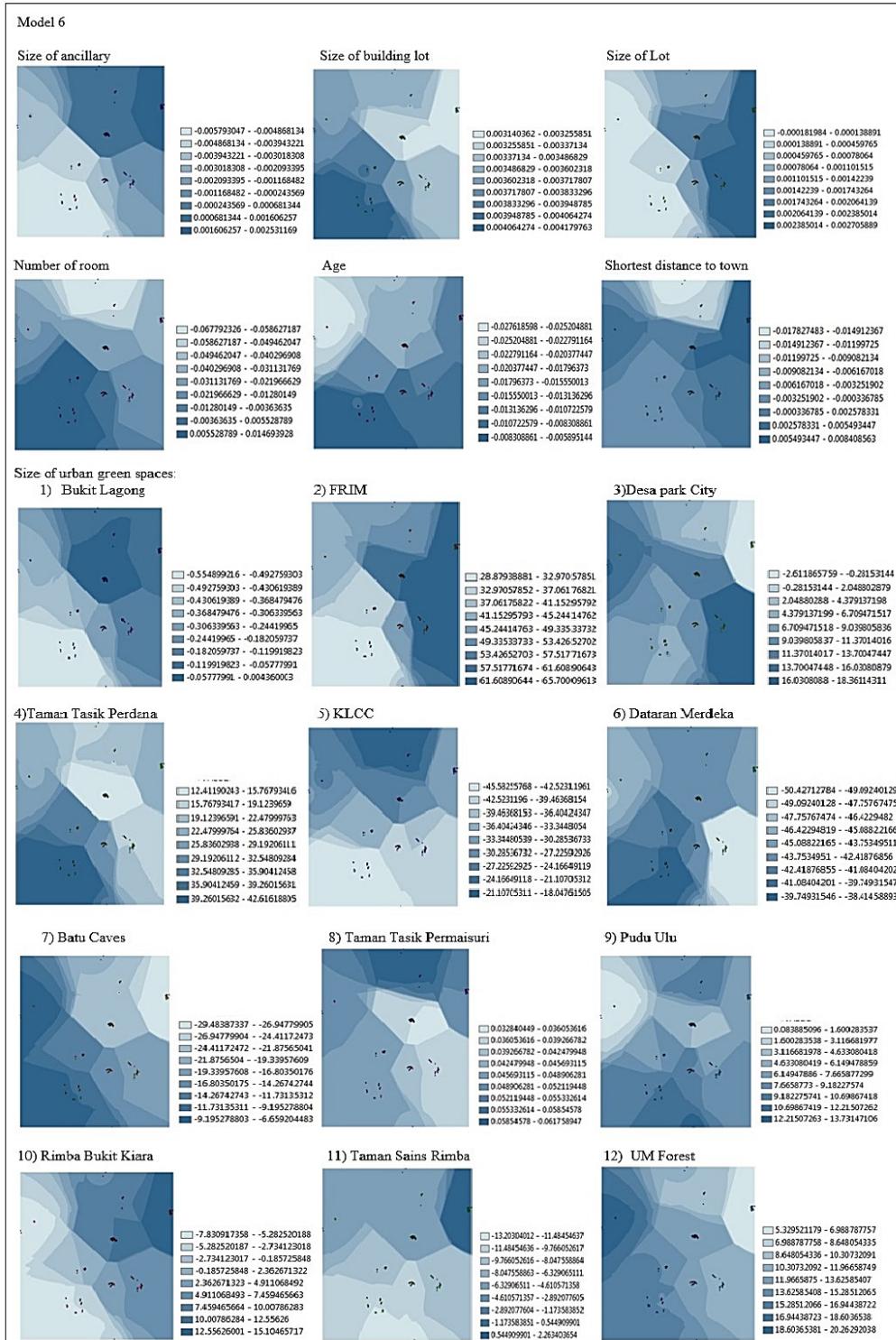
Figure 3. Spatial distribution of the parameter estimates of each variable that is statistically significant on geographical variability for Model 6
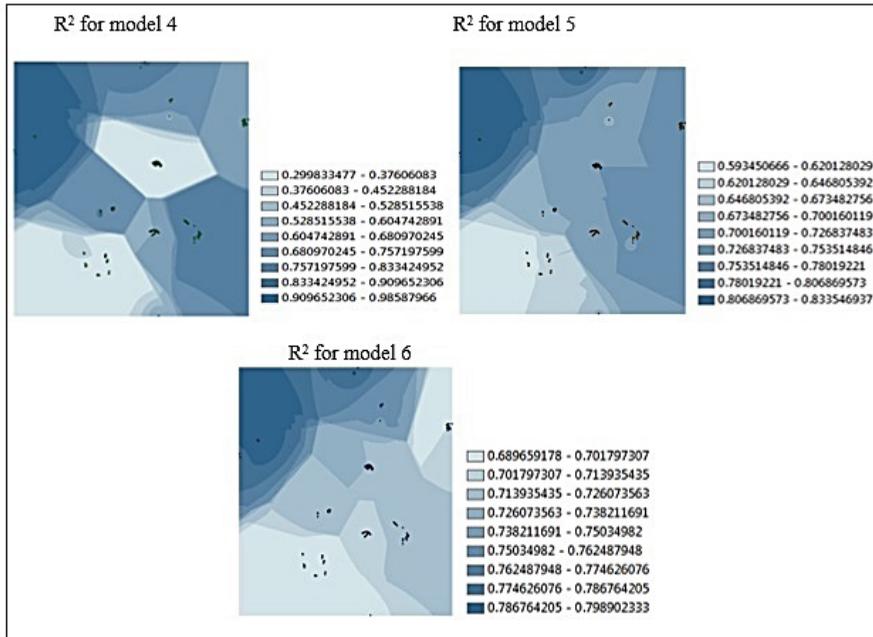
Figure 4. Spatial distribution of R^2 values for each local Model

It shows that the house price at each of residential areas in KL city was influenced by the distance of UGS (Bukit Lagong, Desa Park City, Batu Caves and Rimba Bukit Kiara). This result illustrated that these UGS have high economic value for all residential areas in KL city. Tasik Perdana and Dataran Merdeka were negatively significant in the west, north west, and south west. Taman Tasik Titiwangsa was negatively significant in most of the residential areas in KL city except in the west of KL city. Permaisuri was also negatively significant in most of the residential areas in KL city except in the east and south. KLCC was only negatively significant at the residential areas located in the east and west of KL city. Taman Sains Rimba and UM forest were only negatively significant at residential areas located in the south east of KL city. For model 6 as illustrated in Figure 3, the size of UGS (FRIM, Tasik Perdana, Permaisuri, Pudu Ulu, and UM Forest) were positively significant at all of the residential areas in KL City. Size of Bukit Lagong and Taman Sains Rimba were positively significant at residential areas located in the north east of KL city. Size of Desa Park City was positively significant at all the residential areas in KL city except in the south east. Size of Rimba Bukit Kiara was positively significant at residential areas located in the north, east, and south of KL city. Meanwhile, the size of KLCC, Dataran Merdeka, and Batu Caves was negatively significant at all the residential areas in KL city.

For model 4, the local R² values shown in Figure 4 present a variation of 0.3 to 0.98, which means that the fit explained 30% to 98% of the data variance. For model 5, the local R² values showed a variation of 0.59 to 0.83, indicating the fit explained 59% to 83% of the data variance. For model 6, the local R² values presented a variation of 0.69 to 0.8, that is, the fit explained 69% to 80% of the data variance. The highest R² values for all local models were obtained in the north west of KL city, which suggests that the conclusion between the variables was better with GWR in this region.

CONCLUSION

This study economically valued UGS in relation to housing price. In general, it shows the economic benefits associated with environmental amenities such as proximity to recreational parks and size of parks. The house price is valued based on two types of models. For global model, model 2 was found to be the best, as it indicated the highest adjusted R² value and the lowest AIC value. For local model, model 4 offerrd the best model. However, by comparing the global and local model, it was found that local model is better than global model as indicated by the adjusted R² and AIC values. Hence, it is proven that geographic coordinates play an important role in valuing the economic benefits of UGS.

The global model proved that Taman Tasik Titiwangsa and FRIM are the UGS that offer the highest economic value for model 2 and model 3 respectively. This finding is based on the highest increase in house price due to environmental attributes. However, there is a little difference with the results obtained of the local model. Overall, the result of the local model illustrated that most UGS attributes are statistically significant and have positive impact on house prices.

On average, global model proved that Taman Tasik Titiwangsa offers the highest economic value due to the distance between UGS and residential area. However, local model shows that the economic value of Taman Tasik Titiwangsa is only valuable for certain residential areas in KL city, that is Mont Kiara The Residence, Kepong Baru, Jinjang Utara, Kepong Garden and Desa Park City. This situation is due to the existing spatial non-stationarity. For the size of UGS variables, local model shows that the economic value of FRIM is significant and has positive impact for the whole residential area in KL city.

By using GWR, this study offers information about where real estate developers would gain benefits by targeting the best locations to build houses or residential areas. Besides that, the results recommend that policy makers should protect UGS in the urban environment and design zoning and land-use regulation policies accordingly.

However, this study has its limitation in regard to the variables and quantity of data. This study only included one neighborhood variable, that is the distance to town. It would be useful if other neighborhood variables such as information about school, hospital, crime rate, airport and place of

worship could be included. In addition, instead of regressing individually the environmental variables, the house structure variables, neighborhood variables and all of the environmental variables also need to be regressed in one model. As for the quantity of data, hedonic pricing analysis will be more accurate with a large number of sample size (more than 1000 samples). By considering all of these limitations, a future study will be valued.

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Preliminary Assessment and Prioritisation of Demand Management Strategies for Reducing Train Overcrowding

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ABSTRACT

Train overcrowding has been associated with psychological stress, adverse health effects, negative behavioural reactions, and spillover effects. However, there is little agreement on the appropriate demand management strategies to deal with the increasing passenger numbers, especially on rail services in Malaysia. To begin addressing this issue, a preliminary study involving 13 participants (Male = 8; Female = 5) from an organisation under the Ministry of Transport, Malaysia focusing on demand management issues and transportation research and development activities was conducted. Participants ranked three sets of demand management strategies (pricing, service quality, and policy) based on their feasibility, effectiveness and cost. Using Kendall's coefficient of concordance (Kendall's W), findings showed a relatively weak, but consistent agreement rate among participants across all strategies on their feasibility, effectiveness and cost. In particular, high priority was placed on four strategies namely, free early bird incentives, discounted early bird or off-peak fares, increasing train frequency, and travel demand management programme, implying their potential applications for peak smoothing in Malaysian urban rail systems. The implications for practice and limitations of this study are discussed. It is suggested that the identified strategies should be targeted for intervention and evaluation to further refine our understanding of sustainable, effective, and cost-efficient ways in addressing current and future train overcrowding issues.

Keywords: Rail, crowding, demand management, peak period, Malaysia

INTRODUCTION

As the demand for rail travel continues to grow, along with traffic congestion, supply constraints, urban sprawl, as well

as employment and population growth (Gil Sander, Blancas Mendivil, & Westra, 2015), overcrowding of rail services is fast becoming a pressing concern worldwide, including in Malaysia. Current statistics indicate that the total passenger numbers for light rail transit services (that is, LRT Kelana Jaya Line, LRT Ampang Line, KL Monorail, KLIA Ekpress, and KLIA Transit) have increased from 129.9 million in 2006 to 180 million in 2015 while an increase of about 40.5% was observed over the same period for the KTM Komuter service, that is, from 34,975 in 2006 to 49,960 in 2015 (Ministry of Transport Malaysia, 2015; see Appendix 1 for the comparison). Reports have also shown that the main rail lines in Malaysia are functioning at over 140% and 180% of design capacity (Palansamy, 2016; Performance Management and Delivery Unit (PEMANDU), 2010). The notion that passengers are being crammed into trains like cattle or cramped like sardines in a small tin on the trains is also not uncommon elsewhere (Cox, Houdmont, & Griffiths, 2006). These scenarios present a daunting issue for train companies because operating overcrowded trains has been associated with delays in services (Lam, Cheung, & Lam, 1999), injuries to staff and passengers (Turner, Corbett, O'Hara, & White, 2004), as well as a number of negative outcomes such as psychological stress and spillover effects (Mohd Mahudin, 2012), wider health and safety issues (Cox, Houdmont, & Griffiths, 2006), and a vehicle for the spread of illness and disease (Gershon, Qureshi, Barrera, Erwin, & Goldsmith, 2005).

Despite the widely admitted seriousness of this issue, there is no definitive agreement on the appropriate demand management strategies to deal with the increasing passenger numbers. Demand management refers to the collection of operational, administrative, and economic policies designed to ensure that demand for the utilisation of rail transportation resources is kept at a manageable level, especially during peak commuting periods (Online TDM Encyclopedia, 2016). A number of viable strategies have been proposed to address this issue. These include trip suppression, trip redistribution, shifting demand, mode switch, and peak fare pricing (Online TDM Encyclopedia, 2016).

While studies exploring the potential of establishing demand management as a legitimate resource option for crowding mitigation have been conducted elsewhere (for example, in Australia by Henn, Karpouzis, & Sloan, 2010; in the USA by Nelson Nygaard Consulting Associates, 2008; and in the UK by Maunsell, 2007), less attention has been paid to the more immediate concerns in the Malaysian rail industry. This is an important deficit, especially since researchers have observed a connection between demand management strategies and service quality improvements. For instance, in the case of Australia and the United States, Hale and Charles (2009) show how pricing and communication strategies can be effectively used to address peak demand and reduce train overcrowding. As yet, however, little is known about the existence and feasibility of such strategies

in Malaysia, other than the observation that train overcrowding is indeed stressful for the commuters and has the potential to spill over into other aspects of their life and work (Mohd Mahudin, 2012).

One reason for the current state of the field is that existing research is generally restricted to individual country case studies with a limited comparison of different cases or over time. Besides, some of the identifiable strategies suggested in previous work are mainly in the early stages and only at discussion level among the rail stakeholders in the localised areas. As a result, there is little information about the feasibility, effectiveness, or cost-effectiveness of these demand management strategies in the Malaysian setting. The questions of what measures would be most effective in mitigating train overcrowding and whether they are feasible in administrative terms are of theoretical and substantive importance. To address these questions, the current study focuses on one broad area of contention: a preliminary exploration of stakeholders' perspectives on the feasibility, effectiveness, and cost of demand management strategies for reducing train overcrowding in Malaysia. However, before proceeding with the study, it is sensible to discuss the existing rail demand management strategies that have been reported in the literature. Hence, this discussion is presented in the next section.

Existing Rail Demand Management Strategies

Increasing the capacity and decreasing the demand are the two common strategies for balancing the mismatch between demand and capacity (Henn, Karpouzis, & Sloan, 2010). Capacity enhancement strategies, such as adding more train coaches, building new rail infrastructures, constructing new rail lines, or redesigning existing infrastructures, are usually investment intensive and require long time frames. Furthermore, these strategies may not be feasible in several situations due to geographical, environmental, socio-economical, or political issues associated with such large projects. On the other hand, demand management strategies that aimed at distributing the peak period demand to before and after the critical period have the potential to improve the demand-capacity balance over a medium to a short period with relatively less investment. As a result of renegotiating the demand distribution, a general flattening of the travel demand profile across a broader period is obtained (Holyoak & Chang, 2006).

Other types of demand management strategies have also been discussed in the literature. For example, Henn, Karpouzis, and Sloan (2010) identified five broad categories of strategies in their review that examined how peak demand is addressed in Australian urban rail systems. Of these categories, the financial and pricing strategies, which vary from peak fare pricing, station-specific surcharges, and fare pass programmes to market rate parking pricing and peak parking pricing, are regarded as easy to implement, but politically unpopular, hence mixed success was reported. On the other hand, service delivery strategies, such as improving

service frequency as well as enhancing wayfinding and passenger flow mechanisms, have the potential for peak smoothing and expansion of rail capacity but need careful consideration for implementation as they involve considerable cost (Henn, Karpouzis, & Sloan, 2010). Another two categories of strategies, which are reducing the underlying need for the service (for example, land use and transit oriented development policies) and changing the way needs are met (such as promotion of integrated transport policy framework) are deemed as essential strategies with longer term spatial impact. However, rail operators have limited control over these policies as it is challenging to foster coordination and cooperation with non-transport organisations and other competing transport mechanisms (Henn, Karpouzis, & Sloan, 2010). Finally, education, particularly dissemination of information about peak fares and crowding levels, has strong potential to shift passenger behaviours by making them aware of crowding conditions or alternative transport or route options (Henn, Karpouzis, & Sloan, 2010).

Although these strategies are useful individually, Henn, Karpouzis, and Sloan (2010) suggest that two criteria should be placed for maximum impact. First, instead of applying the strategies singly, a combination of strategies tailored to the particular circumstances of each urban area is a better way to manage congestion. For example, combining fare and pricing strategies with office hour flexibility campaigns and employer incentives and disincentives would be able to address the range of factors contributing to train overcrowding. Second, the strategies need to be customised according to context. This is because it is possible that strategies that work effectively in one situation may fail in another. One such example is by Cervero (1990) who reported that geographically targeted free fare programmes have been more successful than system wide free fare programmes. Other studies that investigated rail demand management such as Nelson Nygaard Consulting Associates (2008) in the US and Maunsell (2007) in the UK also reported similar strategies. Therefore, based on the past studies, it is evident that various demand management strategies are available and practised at a range of scales.

Nevertheless, within the Malaysia's context, policies and strategies relating to rail demand management and passenger load remain a grey area. For example, neither the Railways Act 1991 nor the Land Public Transport Act 2010 contained specific policies associated with the maximum allowable passenger load or guidelines on how to manage congestion in carriages and at railway stations. In particular, the Railways Act 1991 just states that the Minister who is in-charged with the responsibility for railways "shall only grant his approval for the opening of a railway after he has received a written report from an engineer appointed by the Director General that (a) he has made a careful inspection of the railway; (b) the weight of rails, strength

of bridges, general structural character of the works, and the size of and maximum gross load upon the axles of any rolling-stock are such as have been prescribed by any regulations made under these Acts; and (c) in his opinion the opening of the railway will not cause any danger to the passengers or any damage to the goods to be carried thereon" (p. 26-27).

A similar vagueness is also noted concerning the implementation of other types of rail demand management. Apart from giving a 50% discount on the fare to those who commute between 6:00 a.m. to 7:00 a.m. (Anand, 2016) and purchasing new trains in stages (Palansamy, 2016), other efforts to reduce peak hour congestion and manage the peak demand have been less reported to date. This raises the question of whether rail stakeholders are adequately aware and know about the strategies that are viable for the longer run. Therefore, what is lacking in the literature are investigations into what is perceived as demand management strategies in Malaysia and to what extent is the consensus on their feasibility, effectiveness, and cost within the rail industry in the country. An overview of demand management strategies, which warrants further investigation in addressing Malaysia's urban rail issues, is thus required. As a start, the current research attempts to address this gap by conducting an exploratory study on how stakeholders perceive and prioritise the demand.

METHOD

Study Design and Participants

Because the current study is a preliminary work and exploratory in nature, purposive sample of stakeholders from the rail industry was selected. More specifically, 13 participants (Male = 8; Female = 5) from an organisation under the Ministry of Transport, Malaysia participated in this study; the criterion for their selection was that they are transport professionals and experts who are directly involved in demand management issues and transportation research and development activities. The use of this criterion in this study is consistent with the wider literature, which suggests that stakeholders are those organisations who are likely to affect and be affected by the demand management issues - these may include transport professionals, rail operators, and regulatory authorities.

Measures

A list of potential demand management strategies in rail industry along with their descriptions was generated from the review of past studies. Eight broad categories of approaches for managing peak demand were identified - these include pricing approaches, service quality approaches, management-based approaches, policy approaches, educational approaches, communication approaches, engineering-design approaches, and infrastructure-based approaches. These

approaches were further categorised into three groups of strategies: pricing, service quality, and policy, which then formed the final strategies to be ranked by the participants in the survey. Consequently, the final survey items consisted of six strategies related to pricing, ten strategies about service quality, and six strategies associated with policy.

Procedure

Each participant was contacted via e-mail and face-to-face meeting, in which they were provided with an explanation of the purpose of the study, its procedure, and the details of the questionnaire. After the permission to conduct the study was granted, participants were asked to rank the items for each of the identified strategies listed in the questionnaire by order of what they believe to be "most" to "least" based on their feasibility, effectiveness, and cost. For pricing and policy strategies, these values were ranked using a scoring system that ranged from 1 to 6 (1, being most preferred, 6, being least preferred). Meanwhile, for service quality strategies, these values were ranked using a scoring system, ranging from 1 to 10 (1, being most preferred, 10, being least preferred). In providing their ratings, participants were asked to focus on the specific demand management strategies in

rail industry, particularly the light rail transit and commuter services.

Data Analysis

In each group of strategies, the one that received the highest ranking (1 = most preferred) is regarded as the most prioritised strategy for managing peak demand and overcrowding. The ranked strategies obtained were examined in terms of their feasibility, effectiveness, and cost, with the level of agreement among the raters determined using Kendall's coefficient of concordance (Kendall's W). This statistic is recognised as the best metric for measuring non-parametric rankings (Okoli & Pawlowski, 2004). Kendall's W ranges from 0 (no agreement) to 1 (*Full Agreement*) (Kendall & Gibbons 1990). In this study, Kendall's W values are interpreted using a guideline set by Schmidt (1997) (see Table 1).

Table 1
Kendall's value interpretation (Schmidt, 1997)

W	Interpretation	Confidence in Rankings
0.1	Very weak agreement	None
0.3	Weak agreement	Low
0.5	Moderate agreement	Fair
0.7	Strong agreement	High
0.9	Unusually strong agreement	Very high

RESULTS

From Table 2 on feasibility, it can be seen that Kendall's *W* values for pricing and service quality strategies are 0.216 and 0.213 respectively, which suggest weak agreement among the participants. Kendall's *W* also shows very weak agreement among participants in the policy strategies (0.092).

Table 2
Kendall's W results for feasibility

Category	Item	Mean Rank	Kendall's *W*	df	p
Pricing	Increase peak period fares	3.88	0.216	5	.016
	Free early bird incentives	2.58			
	Discounted early bird or off-peak fares	2.65			
	Surcharges at specific stations	4.35			
	Reduce or restrict parking availability at stations	4.35			
	Employer incentives and disincentives	3.19			
Service Quality	Increase train frequency	3.75	0.213	9	.006
	Increase seating capacity	6.71			
	Redesign standing and seated areas	5.88			
	Enhance passenger flow	6.67			
	Standardise entry and exit protocols	6.33			
	Efficient ticketing systems	4.92			
	Traveller information services	3.92			
	Express services	3.54			
	Provide feeder services and park-and-ride facilities	7.04			
	Build more transport infrastructure	6.25			
Policy	Policy-induced change in travel time	3.58	0.092	5	.311
	Flexible working hours' policy	3.46			
	Land use and population policy	4.31			
	Travel demand management	3.04			
	Policy-driven traffic management systems	3.77			
	Public awareness and educational campaigns	2.85			

Participants also ranked the strategies according to their perceived effectiveness, as shown by the results tabulated in Table 3. Kendall's *W* values obtained are as follows: pricing = 0.129, service quality = 0.243, and policy = 0.098, indicating again less agreement among the participants.

Table 3
Kendall's W results for effectiveness

Category	Item	Mean Rank	Kendall's *W*	df	p
Pricing	Increase peak period fares	3.27	0.129	5	.138
	Free early bird incentives	3.12			
	Discounted early bird or off-peak fares	3.00			
	Surcharges at specific stations	4.15			
	Reduce or restrict parking availability at stations	4.42			
	Employer incentives and disincentives	3.04			
Service Quality	Increase train frequency	3.08	0.243	9	
	Increase seating capacity	4.81			
	Redesign standing and seated areas	6.23			
	Enhance passenger flow	6.50			
	Standardise entry and exit protocols	7.96			
	Efficient ticketing systems	4.50			
	Traveller information services	5.31			
	Express services	5.42			
	Provide feeder services and park-and-ride facilities	6.38			
	Build more transport infrastructure	4.81			
Policy	Policy-induced change in travel time	3.63	0.098	5	.321
	Flexible working hours' policy	3.29			
	Land use and population policy	3.21			
	Travel demand management	3.13			
	Policy-driven traffic management systems	3.21			
	Public awareness and educational campaigns	4.54			

A similar pattern of results was obtained in cost (see Table 4), with Kendall's W values of 0.042 for pricing, 0.342 for service quality, and 0.172 for policy.

Table 4
Kendall's W results for cost

Category	Item	Mean Rank	Kendall's W	df	p
Pricing	Increase peak period fares	3.92	0.042	5	.746
	Free early bird incentives	3.35			
	Discounted early bird or off-peak fares	3.31			
	Surcharges at specific stations	3.58			
	Reduce or restrict parking availability at stations	3.85			
	Employer incentives and disincentives	3.00			
Service Quality	Increase train frequency	4.65	0.342	9	.001
	Increase seating capacity	4.50			
	Redesign standing and seated areas	4.27			
	Enhance passenger flow	6.15			
	Standardise entry and exit protocols	8.27			
	Efficient ticketing systems	5.69			
	Traveller information services	6.77			
	Express services	7.50			
	Provide feeder services and park-and-ride facilities	4.54			
	Build more transport infrastructure	2.65			
Policy	Policy-induced change in travel time	3.46	0.172	5	.067
	Flexible working hours' policy	4.96			
	Land use and population policy	3.13			
	Travel demand management	3.25			
	Policy-driven traffic management systems	3.21			
	Public awareness and educational campaigns	3.00			

To facilitate easy understanding of participants' level of agreement results, all Kendall's W values obtained are summarised in Table 5.

Table 5
Summary of Kendall's W results

Category of Strategies	Kendall's W		
	Feasibility	Effectiveness	Cost
Pricing	0.216	0.129	0.042
Service quality	0.213	0.243	0.342
Policy	0.092	0.098	0.172

The rank of all strategies was then tabulated in Table 6. In pricing strategies, free early bird incentives were ranked first for feasibility, but third in effectiveness, and cost. Meanwhile, discounted early bird or off-peak fares were ranked first for effectiveness, but second for feasibility and cost. Employer incentives and disincentives were ranked as most costly, but third in feasibility and effectiveness. In this category, the least feasible strategy but less costly for rail industry is to increase peak period fares whereas the least effective is to reduce or restrict parking availability at stations.

Table 6
Final rank for all strategies based on feasibility, effectiveness and cost

Category	Item	Final Rank		
		Feasibility	Effectiveness	Cost
Pricing	Increase peak period fares	6	4	6
	Free early bird incentives	1	3	3
	Discounted early bird or off-peak fares	2	1	2
	Surcharges at specific stations	4	5	4
	Reduce or restrict parking availability at stations	4	6	5
	Employer incentives and disincentives	3	2	1
Service Quality	Increase train frequency	2	1	5
	Increase seating capacity	9	3	3
	Redesign standing and seated areas	5	7	2
	Enhance passenger flow	8	9	7
	Standardise entry and exit protocols	7	10	10
	Efficient ticketing systems	4	2	6
	Traveller information services	3	5	8
	Express services	1	6	9
	Provide feeder services and park-and-ride facilities	10	8	4
	Build more transport infrastructure	6	3	1
Policy	Policy-induced change in travel time	4	5	5
	Flexible working hours' policy	3	4	6
	Land use and population policy	6	2	2
	Travel demand management	2	1	4
	Policy-driven traffic management systems	5	2	3
	Public awareness and educational campaigns	1	6	1

For service quality strategies, providing express services was ranked first for feasibility but sixth and ninth for effectiveness and cost respectively. The most effective strategy as perceived by the participants is increase train frequency, which was ranked as second and fifth for feasibility and cost. Building more transport infrastructure was ranked first in cost, sixth in feasibility, and third in effectiveness. Participants rated providing feeder services and park-and-ride facilities as the least feasible strategy and standardising entry and exit protocols to manage crowds as the least effective but least costly.

Finally, in the policy strategies, public awareness and educational campaigns were ranked first in terms of feasibility and cost but last in effectiveness. Meanwhile, travel demand management was ranked first for effectiveness but second and fourth for feasibility and cost respectively. Among the strategies, land use and population policy are the least preferred for feasibility; public awareness and educational campaigns are the least preferred for effectiveness; and flexible working hours' policy was ranked last for cost. To summarise these results, the rank of the most and least preferred strategies is tabulated in Table 7 below.

Table 7

Rank for most and least strategies based on feasibility, effectiveness, and cost

Categories of Strategies	Feasibility		Effectiveness		Cost	
	Most	Least	Most	Least	Most	Least
Pricing	Free early bird incentives	Increase peak period fares	Discounted early bird or off-peak fares	Reduce or restrict parking availability at stations	Employer incentives and disincentives	Increase peak period fares
Service quality	Express services	Feeder services and park-and-ride facilities	Increase train frequency	Standardising entry and exit protocols	More transport infrastructure	Standardising entry and exit protocols
Policy	Public awareness and educational campaigns	Land use and population policy	Travel demand management	Public awareness and educational campaigns	Public awareness and educational campaigns	Flexible working hours' policy

DISCUSSION

In this study, a set of demand management strategies that could address train overcrowding has been examined regarding their feasibility, effectiveness, and cost. More specifically, six strategies related to pricing, ten strategies about service quality, and six strategies associated with policy have been identified from the existing literature and tested using Kendall's W coefficient of concordance. The results showed a relatively weak, but consistent

agreement rate among participants across all strategies on their feasibility, effectiveness, and cost. This consistency of agreement was particularly observed on four strategies: (1) free early bird incentives, (2) discounted early bird or off-peak fares, (3) increasing train frequency, and (4) travel demand management programme, hence, reinforcing their importance in managing overcrowding issues. It can be seen that the two strategies ranked the highest focus on pricing, which is consistent with previous studies showing that pricing and financial strategies are the most effective way to reduce peak demand (see Hale & Charles, 2009; Liu & Charles, 2013). The third and fourth strategies, which concern service quality improvement and urban transport planning and travel demand management programme also echoed the literature (for example, Hale, 2011; Henn, Karpouzis, & Sloan, 2010) that highlighted the effectiveness of such strategies. These results, therefore, suggest that these four strategies have the most potential for peak smoothing in Malaysian urban rail systems and rail stakeholders are recommended to consider them when making decisions on passenger loading and overcrowding.

One unexpected finding was that strategies such as reduction or restriction of parking availability at stations, provision of feeder services and park-and-ride facilities, and standardisation of entry and exit protocols were ranked as less important in mitigating overcrowding issues. It is unclear as to why participants ranked these strategies in this way - this suggests another area of focus for future research. In light of the findings too, rail stakeholders are recommended to pursue a judicious loading policy that not only restricts passenger loading levels to within the current capacity of the rail system but also requires the rail operators to enforce adequate measures to reduce overcrowding and improve punctuality and reliability targets. Such policy initiatives should also include procedures for implementing good practice approaches to crowd management and crowd monitoring on the railways as well as specify appropriate penalties for non-compliance.

Another implication arising from the findings is that there is a need for a feasible and cost-effective, if not cheap, measure for addressing issues associated with peak demand and passenger growth. With an understanding of the financial and management constraints affecting the industry, an integrated approach of cost-effective strategies tailored to the particular circumstances of each rail system seems to offer the best prospect for managing passenger crowding. One way of doing this is to use psychologically targeted strategies that are both cost-effective in managing the growing demand on the rail services and in contributing to improvement in service (Cox, Houdmont, & Griffiths, 2006; Mohd Mahudin, 2012). The potential use of psychological or non-engineering strategies that can effectively mitigate peak demand growth should be further explored.

A preliminary work as the present one is not without its limitations. It is recognised that the main drawback of

this study is the small sample size, which renders the weak agreement among the rankings of the participants. It is also likely that the lack of consensus in the rankings occurred because the research area is a largely unexplored domain in Malaysia in which there is no background to provide structure to ensuing works. To overcome this limitation, a larger sample size with more diverse stakeholders is recommended as it may yield stronger agreements among participants. Another future work that can also be done is to conduct an in-depth survey with the stakeholders to (1) explore the justification for their rankings, (2) know whether there are any institutional issues behind such rankings, and (3) understand the barriers associated with the implementation of the strategies from their perspective and their thoughts on how to remove them. Alternatively, conducting a study from the users' perspective would be helpful in identifying feasibility issues and developing comprehensive demand management strategies. Further studies are warranted to explore this possibility.

CONCLUSIONS

To conclude, this research provides preliminary yet valuable information that can inform the literature on the specific strategies that are deemed high priorities in addressing train overcrowding, and, by extension, improving service quality and passenger satisfaction with rail services. In particular, the findings could be instrumental in advocating rail stakeholders and relevant authorities in Malaysia on the importance of managing peak crowding and passenger demand within the rail transport sector. It follows that the identified strategies should be targeted for intervention and evaluation. Confirmation of these results through additional research and assessments are needed to refine the understanding of sustainable, effective, and cost-efficient ways to address current and future train overcrowding issues.

It is important that future studies evaluate the prioritised interventions for their effectiveness in managing passenger demand and peak train crowding. One such study could be a quasi-experimental, longitudinal research that implements and tests the prioritised strategies along the existing rail lines. In this way, the effectiveness of these strategies could be assessed over time. An investigation into strengthening the successful strategies is likewise recommended to be added to the future plan of the research project. This line of work is essential to ensure that the effectiveness of the strategies can be sustained and even enhanced.

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APPENDIX 1

Total Passenger Numbers for Light Rail Transit and Commuter Services from 2006 to 2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
KTM Komuter	34,975	36,959	36,557	34,683	34,995	35,510	34,847	43,942	46,957	49,960
Kelana Jaya Line	56,747,136	56,965,258	58,168,337	55,580,190	58,037,633	68,398,561	71,574,675	78,702,931	81,971,322	82,144,674
Ampang Line	49,727,909	52,434,883	51,009,480	49,375,077	51,572,177	53,568,672	56,809,978	60,207,397	63,270,432	62,809,412
KL Monorail	19,322,170	22,197,169	21,765,233	21,021,390	22,108,308	24,200,299	24,435,931	25,437,621	24,303,465	25,067,866
KLIA Ekspress	1,839,226	1,780,384	1,578,706	1,419,827	1,508,734	1,581,476	1,649,410	2,063,419	2,928,302	3,470,710
KLIA Transit	2,369,864	2,449,842	2,508,884	2,441,736	2,626,119	3,238,389	3,713,536	4,374,219	6,310,323	6,496,617

Source: Transport Statistics Malaysia, 2015

SOCIAL SCIENCES & HUMANITIES

SMEs Development and ASEAN Economic Integration: An Analysis of Singapore and Malaysia

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ABSTRACT

This article aims to examine the role of the Association of Southeast Asian Nations (ASEAN) member states in enhancing the capability of small and medium enterprises (SMEs) for the purpose of achieving their ASEAN Economic Community Blueprint. A comparative case study between Singapore and Malaysia was adopted whereby multiple sources of data and information were gathered and synthesised using content analysis. Quantitative data were also used to support the qualitative analysis. An essential result indicates that even though Singapore and Malaysia have collectively agreed to develop regional economic community using SMEs as a tool, their strategic-oriented economic policies seem to be affiliated outside the group. They are more open to trade and investment with countries outside the group than their ASEAN partners. Additionally, besides the internal restrictions and differences on productive resources, market demands, workforce skills, and even technology and innovation for SMEs development, a paramount challenge stems from the aspiration of being the key economic player at both regional and global levels. Therefore, the pursuit of economic power has practically undermined the collective agreement mentioned above, and has simultaneously put the ASEAN regional economic integration process in jeopardy in face of the inconsistency of its member states' strategies and policies.

INTRODUCTION

The initiative and development of small and medium enterprises (SMEs) has been a

prominent matter on the agendas of ASEAN member states. In the context of developing countries, it has particularly been placed as part of the bottom-up approach for national economic development strategies, with the aims of increasing employment rates, household incomes, and, as the ultimate goal, national economic stability and competitiveness. At both national and regional levels, the increasing productivity of SMEs has widely become an agenda of regional economic cooperation aimed at bridging the economic development gap among member states (Economic Research Institute for ASEAN and East Asia [ERIA], 2014; Kone, 2012; Samaratunga & Weerasinghe, 2002).).

In the case of the Association of Southeast Asian Nations (ASEAN) Economic Community (AEC), the development of SMEs has, since the 13th ASEAN Summit held in Singapore on November 20, 2007, been highlighted in the third pillar of the ASEAN Economic Community Blueprint as a path towards the creation of equitable economic development. Besides narrowing the economic gap between member states, its aim is to encourage SMEs to participate in regional and global value chains, and focus on efforts to build the capacity of ASEAN member states to ensure their effective integration into the economic community (ASEAN Secretariat, 2015a; Tay & Kiruppalini, 2015).

Also included in this regard is to achieve balanced and sustainable economic development among ASEAN member states, including paving the way towards a common market and production base (ASEAN Secretariat, 2015a; Kawai & Naknoi, 2015). With an aspiration of bolstering domestic economic development from the bottom, each member state has put enormous effort into strengthening their SMEs capacity by investing in science and technology, social infrastructure, marketing channels, and human resource development in order to produce more skilled labour and productive workforce, for instance. Nevertheless, there has been a matter for consideration regarding the consistency of economic-led regional integration and the strategic orientation of each member state, reflected and discussed further below.

Scope of Analysis

Theoretically, different contexts of international circumstances lead to different concerns of national interests which in turn, have affected the policy choices of governments (Jackson & Sorensen, 1999). This perspective rests on the assumption that the policy direction of government is always oriented toward the changing system of international relations. At the same time, the policy choices of governments also clearly influence the existing regional organisations they join (Kimura, 2013; Narine, 2005; Rai, 2010). As shown in Figure 1, domestic demand for economic development is more or less related to foreign policy, thereby shaping the form of inter-state relations and regional cooperation (Tay & Kiruppalini, 2015).
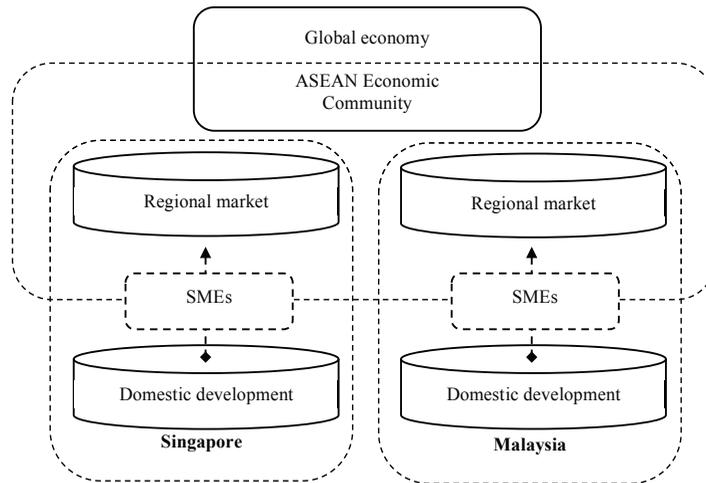
Figure 1. Scope of Analysis

In reference to Figure 1, the scope of this analysis is devoted to shedding light on the interaction between the domestic and foreign policies of ASEAN member states and the ASEAN economic integration process in the course of the intercalation of SMEs development and governments' economic strategy serving as the key analytical point. To clarify these points, a comparative case study between Singapore and Malaysia has been employed.

THEORETICAL DISCUSSIONS

The years of rising of regionalism and attempts towards regional integration among developing countries began in the 1960s. In view of all the variations in regional formations, there is copious amount of substantive literature on regionalism providing both conceptual and analytical frameworks for diagnosing its nature. Nevertheless, obviously, substantial variables affecting the pattern of interstate cooperation and the direction of regional organisations have also changed in tandem with changes in international relations (Rosellon & Yap, 2010; Samaratunga & Weerasinghe, 2002; Tay & Kiruppalini, 2015).

Equally important, a mutual collaborative agreement, which is made by governments at the regional level, does not infer that it would be manifested in a collective action at the local level and accomplished through a shared vision. In so far as there is deliberation about the importance of cross-border economic linkages as a solution mechanism for regional cooperation processes, the role of government alone cannot make it possible. On the contrary, the role of local economic actors and the readiness of their operative resources are required to fulfill these processes (Anderson, 1991).

Theoretically, as discussed above, it refers to as the complex network of

flows across state boundaries, involving the movement of goods and services, capital, technology, information, and people (Hurrell, 1995; Noble, 2005). In the sense of the creation of regional cooperation, as based on constructivist concepts, regionalisation does not come about unless the states and people of each state in a particular region desire it to do so (Wendt, 1992). Regional cooperation may come into existence through a spontaneous or unintended convergence of political regime and economic policy, but often one can identify a triggering political event which sets the process in motion (Katzenstein, 2000).

In view of these arguments, there are two critical theoretical debates. The first issue is that successful economic cooperation in one area would permeate to other areas, and eventually be integrated as a whole. This implies the important roles of the market and economic actors in stimulating closer regional cooperation (Wendt, 1992). The second argument issue is that regional integration cannot succeed unless states decide to promote it. The possibility of regional integration implied in this statement requires an active role for states (Katzenstein, 2000).

In the case of ASEAN, the shared vision of member states is to enhance ASEAN as a dynamic regional association. As a code of conduct, member states explicitly prescribe the right of every state to lead its national existence free from external interference, subversion, and coercion. This is because the member governments

attempt to strengthen their internal stability at both the local and national levels to cope with the external challenges of complex interdependence at both regional and global levels (Narine, 2005; Noble, 2005).

In this regard, the momentum of the ASEAN economic community will come about only if the sense of community, or at least regional cooperation, is substantially encouraged (Hwee, 2005; Kawai & Naknoi, 2015). This leads to a caption idea that the economic community could be established by member states through their economic interdependence, together with the role of their local economic actors which are already destined in the ASEAN Economic Blueprint to play a more meaningful role. With this proposal, it can be said that integration in one policy area would pervade other areas of the economy and spill over into connected areas.

In particular, in driving the ASEAN economic community, as it has been defined in the ASEAN Economic Blueprint, developing the capacity of SMEs as a bottom-up approach to economic development strategy is recognised to be an important factor for the achievement of a common market and production base, or at least of equitable economic development (ASEAN Secretariat, 2015a; Kawai & Naknoi, 2015).

As mentioned in the 2016-2025 ASEAN strategic action plan for SMEs development (ASEAN Secretariat, 2015b), light is shed on the creative initiatives that encourag SMEs to participate in regional and global value chains, and focus efforts to build the capacity of ASEAN's most recent member

states to ensure their effective integration into the economic community. Equally important is that the collective action must be in accordance with collective strategy and should be in line with shared vision accordingly.

MATERIALS AND METHODS

In accordance with the circumstances presented above, this investigation contains mainly qualitative research conducted by means of a comparative case study: the role of Singapore's and Malaysia's governments in developing their SMEs in line with the ASEAN Economic Community Blueprint (ASEAN Secretariat, 2015a; 2015b). Specifically, analysis is devoted to shedding light on the consistency between domestic and foreign policies, particularly in regard to SMEs development. This comparative approach is deployed analytically so as to provide inductive inferences regarding the influences of the policy decision-making of ASEAN member states on the ASEAN Economic Community.

Importantly, according to the global competitiveness index surveyed by the World Economic Forum (WEF) (Jones, 2015), selecting these two competitive ASEAN member states as a comparative case study can help to clearly reflect the realisation of whether or not ASEAN member states might be able to achieve the goal of the ASEAN economic community.

In doing so, secondary sources of data were systematically gathered and synthesised. These consist of relevant official documents regarding the governments' policies on SMEs capacity development, and the documents which relate to the ASEAN Economic Community Blueprint. Also included were academic research and relevant reports of professional organisations. Quantitative data, such as key economic indicators and volume of trade and investment, were also utilised to support the qualitative analysis. In the course of selection, these documents were thoroughly distilled by means of the method of content analysis.

RESULTS AND DISCUSSION

Generally speaking, Singapore and Malaysia have similar economic systems. Both of them emphasise mixed economies in which free-market policies and practices have come hand-in-hand with government intervention (WEF, 2015). Also included is the economic activity of SMEs. In a similar manner, the aims of SMEs capacity development in these two states are to stabilise their local economies on the one hand, and to increase their economic leverage at the regional and global markets, on the other.

In these two states' local economic contexts, both of them have put enormous effort into increasing SMEs capacity, which acts as a catalytic agent for domestic economic development (Rosellon & Yap, 2010; Tay & Kiruppalini, 2015). The SMEs in both states are dominated mainly by the service sector, while other major industries such as electronic, electrical products and chemicals are also promoted. In doing so, Singapore and Malaysia have initiated various sources of financial

assistance, tax treatment, and funding for the provision of factory construction, research and development for innovation and technology, as well as human resources development. These are parts of SMEs development strategies for both newcomers and existing SMEs.

Nevertheless, the results reveal that there are some inconsistencies in SMEs development and relevant policies of the two countries which explicitly and implicitly impose obstacle to the process of ASEAN economic integration. An important difference is grounded in their policy content and implementation processes. In order to encompass all essential related issues, discussions are divided into domestic and foreign policy perspectives, which can be explained as follows.

Domestic Policies for SMEs Development: Singapore

According to the collected data, Singapore's SMEs account for up to 99% of all domestic enterprises, which contribute about 50% to the increase in gross domestic product (GDP) ("Innovation, technology and talent - Keys to grow your business, Singapore", 2016). The Standards, Productivity and Innovation Board of Singapore (SPRING), which is an important public organisation under the supervision of the Ministry of Trade and Industry, has arranged key objectives for SMEss development strategies that cover productivity and innovation as well as standards and quality of labour skills.

In 2016, Singapore supported SMEs development in various aspects such as technology and innovation, human capital, productivity, and service quality ("Innovation, technology and talent - Keys to grow your business, Singapore", 2016). Singapore has also put enormous effort into encouraging both domestic and overseas investment in industries with particular emphasis on technological capacity-building and creating national intellectual property (Business Catalyst Group, 2016). This is in line with the concept of "from value creation toward value-added".

In doing so, as it is a part of the 'smart nation' scheme, financial and tax measures have been rearranged in order to bolster the capacity of local business operations, together with machines and equipment which are needed for production. In particular, the focal point is on innovative technology for production. Such a policy area aims at increasing the economic leverage at the regional and global levels, as indicated by Ministry of Trade and Industry (2011) in the national economic development strategy in the following: "Supporting stronger alliances between large and small players to promote technology transfer, test-bedding and commercialization so as to help SMEs build up capabilities to enter international markets, as well as anchor larger foreign players in Singapore."

At the same time, Prime Minister Lee Hsien Loong, on December 1, 2015, also set up the Committee on the Future Economy (CFE) to push development policies, covering the young entrepreneurship project for the younger generation as well as paying special attention to attracting highly-skilled

Domestic Policies for SMEs Development: Malaysia

In the case of Malaysia, the number of SMEs is up to 97% of all domestic enterprises, contributing to almost 40% of GDP (Salikin, Wahab, & Muhammad, 2014). Specifically, almost 98% of all SMEs in Malaysia are in the service sector. This is partly a legacy of the 1971 New Economic Policy of the government (Lean & Smyth, 2014). In order to develop the capacity of SMEs, the National SME Development Council (NSDC), which is an important government agency working on policy and strategic direction for SMEs, has placed emphasis on productivity-driven SMEs.

Importantly, unlike Singapore, Malaysia tries to stabilise its internal economy by attracting only large-scale foreign direct investments in response to the vision of being a high-income country by 2020 which is a part of the economic policy announcement of Prime Minister Najib Razak in 2015 (Ramli, Kamarunzaman, & Ramli, 2013; SME Corporation Malaysia, 2016). It is somewhat different from the case of Singapore in which the Malaysian government still has high autonomous control over domestic affairs, and gives priority to domestic investment (Salikin et al., 2014).

In addition, an important factor encouraging this is the low price of domestic products together with high demand for domestic goods and services. In addition

to what is mentioned above, there are also efforts laying great emphasis on human resources development. According to SME Corporation Malaysia (2012), the government tries to develop labour skills, focusing on technical and vocational education and training as well as education system reform as a whole.

Nevertheless, even if Malaysia is not as limited by geographical area and natural resources as Singapore, it is striving for technology transfer from foreign investors in order to enhance the productivity of SMEs. According to research by SME Corporation Malaysia (2012), this is mainly due to the lack of participation of SMEs in the national innovation system. While universities and public institutions undertake applied research, there is lack of alignment to market demands. Most SMEs still recognise productivity improvement activities as a cost rather than as a long-term investment, thereby also hesitating to invest in more advanced technologies.

Foreign Policies for SMEs Expansion

In principle, regionalism is defined as a dynamic political process characterised by economic policy cooperation and coordination among states within a given region (Hwee, 2005; Katzenstein, 2000). According to theoretical discussion, collective action must be in accordance with collective strategy, and should additionally be in line with collective vision. This means that a sense of community should be encouraged together with mutual agreement between states and people. However,

the economic data shows that the policy choices of Southeast Asian countries are more outward-oriented in conjunction with the main stream of global political economy. This implies that defining the position of the state at the regional or global levels is relevant to the shaping of regional cooperation patterns.

In regard to economic direction, Singapore pursues a liberal economic system and encourages a proactive economic policy by focusing on regional and international markets. This has resulted mainly from the limitations of geographical area, natural resources, and domestic market demand. As mentioned above, the Ministry of Trade and Industry (2011) of Singapore has set a vision for the country to be a leading global city with a dynamic economy, world class enterprises and innovative and productive SMEs. Relevant to this is the aspiration that Singapore has positioned itself to be the regional hub in various sectors such as aviation, medical care, and finance.

On the contrary, even if Malaysia emphasises economic links with more developed countries outside the region such as China and the Middle East, Malaysia pays attention mainly to stabilising its domestic economy. This has partly resulted from high domestic market demand. In addition, Malaysia still needs to develop its system of information and communication technology which is needed for domestic economic development.

The different strategically-oriented foreign policies of both Singapore and Malaysia, as such, could lead to an ambiguous feature of regional integration processes in general, and the creation of the ASEAN Economic Community in particular (Hwee, 2005; Kawai & Naknoi, 2015; Kimura, 2013). Evidence for this are the economic linkages of both Singapore and Malaysia which are, as obviously displayed in Table 1 and Table 2, more extensive with extra-ASEAN economic powers than with intra-ASEAN economic partners. The values of trade and investment are also included with the economic activities contributed by SMEs.

Table 1

Intra and Extra-ASEAN Trade of Singapore and Malaysia (up to 10 June 2016) (US$ million)

Country	Intra-ASEAN Export		Extra-ASEAN Export		Intra-ASEAN Import		Extra-ASEAN Import	
	Value	Share to total export	Value	Share to total export	Value	Share to total export	Value	Share to total export
Singapore	118,271.4	32.3	248,072.9	67.7	63,779.3	21.5	232,985.6	78.5
Malaysia	56,200.4	28.1	143,668.8	71.9	46,690.1	26.5	129,270.9	73.5

Note: From ASEAN Secretariat (2015c)

Table 2
Foreign direct investment net inflows, Intra and Extra-ASEAN, of Singapore and Malaysia (up to 3 June 2016) (US$ million)

Country	2013			2014			2015		
	Intra-ASEAN	Extra-ASEAN	Total net inflow	Intra-ASEAN	Extra-ASEAN	Total net inflow	Intra-ASEAN	Extra-ASEAN	Total net inflow
Singapore	4,556.2	55,823.4	60,379.6	5,214.1	69,206.2	74,420.3	3,416.3	57,868.5	61,284.8
Malaysia	2,187.5	10,109.9	12,297.4	2,284.0	8,591.3	10,875.3	2,719.0	8,570.6	11,289.6

Note: From ASEAN Secretariat (2015d)

The overall volume of trade and investment reflects the inconsistency of economic policy, on the one hand, and implies the different strategic positioning of ASEAN member states, on the other. As mentioned earlier, the collective economic agreements made by governments cannot guarantee viable regional economic cooperation. In the meantime, initiatives of government alone cannot drive regional economic cooperation processes. On the contrary, regional integration necessitates collective action together with the participation of local economic actors to fulfill such processes (Kawai & Naknoi, 2015; Noble, 2005; Wendt, 1992).

CONCLUSIONS

As discussed above, the results of this research show that even if Singapore and Malaysia demonstrate their willingness to develop their SMEs in line with the ASEAN Economic Community Blueprint, potential factors in driving regional integration processes are still open to debate.

The fundamental factor is the direction of domestic affairs which is limited by natural physical barriers, on the one hand, and domestic economic demand and technological transfer for manufacturing, on the other. Singapore is defined by the former context, while Malaysia is characterised by the latter. In view of these circumstances, it can be argued that even though the collective goal of SMEs development strategy is manipulated to decrease the development gap that existed between member states, the readiness and ability of the SMEs themselves are, partly or totally, dependent on the economic strategies of their governments.

Second, a parallel issue is the limited economic potential and market demand of ASEAN member states which might become a propelling factor for them to take a more outward-looking approach in attempting to deal with the mainstream at a global market level. With reference to the economic data shown in Table 1 and Table 2, it could be argued that even if ASEAN's market seems to be widening, it might be the result of foreign investments rather than internal expansion. This is evident when we consider the inconsistencies of individual member states' domestic and foreign policies, on the one hand, and their foreign policies, on the other.

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The Impact of School Context on the Construction of Female Mathematic Teachers' Professional Identity in a South African Primary School

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ABSTRACT

The overall aim of the study was to use the stories of four Mathematics teachers in a South African primary school to understand the influence of their current school context on their professional identity at a given point in time. This study forms part of a larger project that has been a narrative inquiry, undertaken as its research design to explore the identity construction of two experienced and two less experienced teachers. Data were collected by means of written accounts and individual interviews with these teachers. Although the participants' stories revealed previous personal and professional experiences as children, students and teachers in other school contexts, the positive impact of the current school context on their professional identity emerged as a central theme. The major finding of this investigation speaks of the dominance of the school context that seems to be a powerful force in the construction and reconstruction of teachers' professional identities.

Keywords: Professional identity, narrative inquiry, school context, teacher collaboration, primary school, South Africa

INTRODUCTION

Numerous international studies have recently focused on the development of teachers' professional identity (Gu, 2015; Hamman et al., 2013; Lou, 2013; Pinho & Andrade, 2015; Williams, 2014). The necessity of a competent teaching course has been a major concern in various countries (Vanassche & Kelchtermans, 2014). In this regard Smit and Fritz (2008) affirm that without the prominence of teachers' professional identity all other initiatives

will not improve the quality of education. As such, Hsieh (2010, p. 106) succinctly state that "who teachers are, inform how they teach" and that they are embedded in workplace discourse that impact their teaching.

For the purpose of this article professional identity is considered to be a social entity that is constructed and reconstructed within a particular social setting, such as a school and which is influenced by professional communities in which teachers are involved (Izadinia, 2013). It generally relates to how teachers perceive themselves as teachers which is based on their interpretation and reinterpretation of their continuing interaction with particular contexts (Canrinus, 2011). As a result, teachers create a descriptive framework of their professional identity that reflects the successive stages of transformation during their career and which is constructed into professionalism within existing conditions in school contexts (Jamil, Petras, & Mohamed, 2014).

Regarding teachers' professional identity Day, Kington, Stobart and Sammons (2006), Beaucamp and Thomas (2009) and Canrinus (2011) found that teachers consider three constructs when defining their identity: a personal dimension that reflects their life outside school, a professional dimension which reveals their expectations of what represents a 'good' teacher and a situational dimension which refers to a teacher's immediate particular working context. For Jamie et al. (2014), teachers' experiences of their working conditions have a huge effect on their behaviours, the effectiveness of their teaching and the quality of the whole school system.

Studies on professional identity *inter alia* focused on the construction of professional identity among preservice teachers (Akerson, Pongsanonb, Weiland, & Nargund-Joshid 2014), the characteristics of teachers' professional identity (Pinho & Andrade, 2015), the complex relationship between teachers' experiences of continuous professional development and their construction of professional identity (Williams, 2014), the ways in which professional identity is co-constructed with colleagues (Busher, Wilkins, Kakos, Mohamed, & Smith, 2012; Pinho & Andrade, 2015), the challenges that teachers face in building up their professional identity (Vloet & Van Swet, 2010), and complexity of teacher identity involving the integration of teachers' personal and professional experiences and the application of "conscious/rational and intuitive/tacit thought processes" (Bukor, 2011, p. 1).

A survey in the South African context shows that limited studies were done on the identity of teachers. The studies of Smit and Fritz (2008), and Smit, Fritz and Malabane (2010) focused on an inquiry to portray teacher identity in the context of educational change in South Africa while the study by Cross and Ndofirepi (2015) focused on strategies for developing the professional identity of prospective and employed teachers. Francis and Le Roux's study (2011) focused on the emerging

identities of pre-service teachers, Nel's study (2012) investigated the identity development of teachers by involving them in a Mathematical literacy programme, while Oswald and Perold's study (2015) showed the influence of educational and socio-economic changes within a historically disadvantaged community in the Western Cape.

Against this background, there was a need to gain greater insights into professional identity by contributing to a better understanding of what this phenomenon means in teaching and also to assist in stimulating discourse about this phenomenon. The fact that the South African government aims at improving the competence levels of Mathematics teachers and thereby enhancing the poor performance of students in Mathematics in primary schools (Republic of South Africa, 2015) explains why this study was situated in the field of Mathematics. The gap identified in the current research literature concerned the construction or reconstruction of Mathematics teachers' professional identity within their current school context. The research question that guided from this study was: How did Mathematics teachers experience the construction and reconstruction of their professional identity within their particular school context? This study on teachers' experiences of their professional identity within a particular school context, especially in light of the numerous educational changes and challenges within the South African

school system may add to the existing body of knowledge.

CONCEPTUAL FRAMEWORK

For this study, the conceptual framework was viewed through three lenses: professional identity, identity development and personal interpretative framework.

Professional Identity

Studies on teachers' professional identity during the past two decades have embraced several conceptual underpinnings (Pinho & Andrade, 2015). Olsen (2008) views professional identity as the collection of effects and stimuli from a teacher's immediate context, previous constructs of the self and meaning systems which become interconnected when the teacher simultaneously reacts to and negotiates given contexts and human relationships at given relationships at given moments. It is important to keep in mind that the construction of teachers' professional identity is an ongoing, complex process in which they attempt to understand the values and practices in the school that "enable them to 'belong'" to this school (Wilkins et al., 2012, p. 72). A clear understanding of the school culture and the power processes in the school is therefore necessary in order to comprehend the way in which teachers construct and reconstruct their identities. Moreover, the construction of teachers' identity is considered to be a dynamic process in which teachers interpret and reinterpret meaningful experiences throughout their

lives and within professional practices and in surrounding school contexts (Beijaard, Meijer, & Verloop, 2004; Jamil et al., 2014). It implies that a teacher's professional identity fluctuates and involves the construction and the reconstruction of meaning through a person's stories over a period of time (Jamil et al., 2014; Kelchtermans, 1993; Vloet & Van Swet, 2010). Bukor (2011), however, emphasises the fact that a person's beliefs, perceptions and interpretations of his or lived experiences are interconnected which implies that everything is linked to everything else, which then exerts a mutual influence on one another.

Identity Development

The ideas of Vloet and Van Swet (2010) on identity development rely on the work of Hermans and Hermans-Jansen (1995) which indicates that two motives play an important role in the process of constructing a meaning: (1) the self-motive which strives towards self-enhancement, such as self-expression, self-maintenance and self-development, and (2) the motive which strives for contact and collaboration with others in order to be part of a larger entity. Their identity development view is in line with that of White (2013, p. 84) who uses the notion of "substantive and situational self". In essence, the substantive self is based on fundamental beliefs that develop from life experiences that define who a person is, while the situational self forms through relationships and contexts that may change when a person faces new circumstances (White, 2013). When opportunities for collaboration are provided

to build relationships with colleagues, they can help to develop the substantive self and bring it in line with the situational self (White, 2013). Moreover, the concept of situated learning (Wenger, 2000) is important in understanding the role of the workplace in constructing professional identity (Cross & Ndofirepi, 2015). Bukor (2011) elaborates on this view by stating that although the personal identity theory investigates the influence of the social context on individuals, it does so from individuals' perspective when they fulfill their various roles in that context. Cross and Ndofirepi (2015) succinctly explain how circumstances through the negotiation of meaning around situations, activities and the environment may become an essential part in negotiating the self. Once professionals focus on their meaningful experiences they are able to construct and also reconstruct their sense of professional self and their own professional identity (Cross & Ndofirepi, 2015; Vloet & Van Swet, 2010).

Personal Interpretative Framework

Kelchtermans (2009) identifies two interconnected domains regarding the personal interpretative framework: (1) the representations and professional self-understanding of the self as a teacher, and (2) the personal system of beliefs and knowledge about teaching as a profession. Teachers' conception of the self means that although they may have a shared identity in their teaching profession, their identities could differ as a result of their personal attributes, experience in the teaching

profession, beliefs and perspectives on their particular context (Canrinus, 2011). Kelchtermans (2009) distinguishes between five different components of teachers' professional self: Self-image based on self-perception and which is closely linked to the evaluative component of the self-understanding refers to the way in which teachers portray themselves through their career stories; Self-esteem refers to the way in which teachers evaluate their actual teacher behaviours and how they are defined by the self or others; Task perception refers to the way in which teachers describe their responsibilities and tasks; Job-motivation signifies the reasons for choosing or remaining committed to the teaching profession (or leaving the profession); and Future perspective which is a prospective component reveals teachers' expectations about their future in the teaching profession (Vanassche & Kelchtermans, 2014).

The key conceptual foundation on which this study is based is the Personal Construct Theory of Kelly (2003). This theory presents a systematic description of the way in which people construct their reality that is based on their existing interlinked systems. The concept "construct" is appropriate since it involves two equally important meanings (Bukor ,2011, p, 40). One meaning which is retrospective refers to a construct that represents how the individual has constructed his or her previous experiences. The other meaning which is forward-looking refers to a construct that represents how the individual employs his or her predisposition to construe the future (Bukor, 2011).

METHODS

The type of design selected to investigate the influence of the current school context on Mathematics' teachers' perceptions of their professional identity, was a qualitative approach, in particular a narrative inquiry design (Caine, Estefan, & Clandinin, 2013; Clandinin & Huber, 2010) that studied the experiences of teachers in a particular school context) within the interpretive paradigm (Terre Blanche, Kelly & Durrheim, 2014; White, 2014). The narrative inquiry was based on the epistemological supposition that the teachers constructed stories to make sense of their lived experiences (Clandinin, Murphy, Huber, & Orr, 2009; Hendry, 2010; Tateo, 2012), while the interpretive paradigm attempted to understand these stories within the school context in which they worked (Terre Blanche et al., 2014).

In this study the teachers' professional identity was captured as narrative portraits within an inviting school culture in the primary school. Being an inviting school means that the school intentionally created a school environment that was based on respect, trust, care and optimism for increased student learning outcomes and personal and professional growth (Shaw, Siegel, & Schoenlein, 2013). This study formed part of a larger project in which the school was purposefully selected since professional development of teachers was viewed as a crucial strategy to attain quality teaching and learning. They also emphasised that the improvement of students' Mathematics performance and the professional development of teachers

to attain this goal played a key role. The school's success was evident from students' Mathematics performance in the Annual National Assessment in 2014 (Table 1).

Table 1
Annual National Assessment Results (2014) for Mathematics in South Africa, in Gauteng and in the school studied

	South Africa	School in the Study
Grade 4	37.3%	68%
Grade 5	37.3%	68%
Grade 6	43.0%	80%

Note: Table 1 shows that the average performance in Grades 4 – 6 was significantly better than the average performance in South Africa, which confirmed the department's motto: "Mathematics is tops"

Sample and Participant Selection

Four teachers were purposefully selected for this study and pseudonyms were used to protect their identity: two teachers had more than 10 years of teaching experience (Dorothy and Christina) and the other two had less than 10 years' experience (Alice and Betty). In previous studies these teachers presented information-rich written and verbal accounts of their experiences related to professional development and professional identity. Similar to the findings of Hsieh's study (2010), participants were in the same department and school, but they constructed varying individual perceptions of professional identity within this context. Table 2 reveals their teaching experience and number of years in the school.

Table 2
Particulars of participants

Participant	Teaching Experience	Number of Years at This School
Dorothy (Head of Department)	37	36
Christina	20 (with an interruption in her career)	4
Alice	9	5
Betty	4	4

Data Collection

Data collection included written accounts and in-depth individual interviews with these teachers, which ensured trustworthiness of the data (Gu, 2015; Vanassche & Kelchtermans, 2014; White, 2014). Both these methods had an open structure that allowed participants to give a narrative account of their previous professional experiences (Vanassche & Kelchtermans, 2014) in order to understand the influence of their current school context on the construction of their professional identities (Bukor, 2011; Cross & Ndofirepi, 2015; Hodges & Cady, 2012). Ethical measures included informed consent from the principal of the school, the four participants and permission by the Gauteng Department of Education to conduct the study.

Data Analysis

The data were analysed through two lenses: (1) the three-dimensional narrative inquiry

space which included the dimensions of place, sociality and temporality (Saleh, Menon, & Clandinin 2014), and (2) professional identity development where the influence of the school context and the self were acknowledged (Akerson et al., 2014). The transcripts were coded by using descriptive codes which summarised the content of a fragment and interpretative codes that reflected the conceptual framework of the study (Vanassche & Kelchtermans, 2014). The accuracy of the transcripts, their interpretation and identity portraits were checked by the four participants (Vanassche & Kelchtermans, 2014; White, 2014).

RESULTS AND DISCUSSION

In analysing the data in the narratives a central theme, that is, the impact of the current school on their professional identity emerged. Situating the development of teachers' identity within a particular school context implied the necessity to be aware of the influence this context could have on the construction and reconstruction of their identities (Beaucamp & Thomas, 2009). As an inviting school that adhered to the assumptions of invitational education, it strived to create and enhance their environment to cordially invite all role players to realise their potential in all areas of human development (Purkey & Novak, 2008). The ideal objective was that the five factors, namely, people, places, policies, programmes and processes in the school should be intentionally inviting where every person was kindly summoned to grow intellectually, emotionally, morally and socially. The school identified five major values as five pillars on which it based its inviting approach: love, faith, excellence, respect and integrity. These five values were depicted as pictures on the doors of the school hall, staff room and in the administration offices. To make these values implementable, they were expressed in explicit behavioural terms for staff and students in the school, for visitors to the school, on the sports field or during cultural activities and even outside the school.

At the time of the study, there were 1848 learners with 91 teachers and seven staff members who provided special services, such as remedial teaching, English speaking and Music in the school. The school is situated in a middle class suburb where a few students were totally exempted from paying school fees. Their vision was stated as "the barefoot, fun, performance school with a Christian character that strives towards excellence and aims to develop each child in totality" (Steyn, 2013, p. 7).

Apart from Dorothy who had a positive experience during her first year of teaching, the other three participants expressed their negative experiences in other schools. Christine's previous experience in a disadvantaged school where students had many problems and her colleagues who felt threatened with her competence made her very unhappy. Christine almost 'lost' herself and therefore took a 'break' in her career to 'recover' from her disillusionment of being a teacher. Similarly, Alice had negative experiences of her previous school, while Betty was demoralised about the

profession during her two years of teaching practice; "this is not what I wanted in teaching". They agreed that struggling in unpleasant school contexts led to negative perceptions of teaching, and therefore negative professional identities at that time. The previous negative experiences of Christine, Alice and Betty were supported by studies of Gur (2013) and Akerson et al. (2014), that showed the impact of previous contextual challenges on identity development. However, once teachers engage in a new school environment with more conducive circumstances as was shown in this study, it is possible that they reconstruct their professional identity (Beaucamp & Thomas, 2009; Wilkins et al., 2012). In this regard Cross and Ndofirepi (2015, p.109) succinctly state that with a new school environment and new experiences, a "negotiation of meaning" occurs which form an important part of negotiation of the self. What was important, however, was that these teachers were open and also "made their hearts ready to change" to overcome their negative feelings towards teaching (Mason, 2012, p. 178). The findings also support the conceptual framework that shows professional identity is not stable, but is based on the substantive and situational self that may change, depending on certain experiences and contexts (Bukor, 2011; White, 2013).

According to Dorothy the school in the study placed a strong focus on empowering teachers for the sake of improved student performance and teaching and learning excellence. It gave her "unbelievable opportunities" to develop her self-confidence and leadership skills. This was supported by Christine who acknowledged the many opportunities that the school offered her to develop and also prevented her to be in a groove. Moreover, the school allowed her to be the best she could be. For Betty, it was a huge advantage to be a teacher in this school, because without it she would have been behind in her professional development. The participants' views also gave their interpretation of the self as supported by White (2013). Moreover, the findings link up with Cross and Ndofirepi's study (2015) that showed the motivational impact of a conducive school environment on teachers' professional identity.

For Christine and Dorothy, the school context and its conditions were totally different from other schools. Alice valued the wonderful vibe or spirit and believed that the hardworking climate was 'contagious' in the school: "I can't sit behind my desk; this does not work here." She also referred to "a few unwritten rules" that teachers had to abide by and certain expectations how teachers should behave in classrooms. For her, this had an impact on the "higher standard" of professionalism among staff members. Christine elaborated on this view:

> "The professionalism of the people, how things happen, that it works in the right way, makes it easier to teach, because you do not need to try and solve other problems … You can teach and you know that you

will get help if needed. The staff here is an unbelievable group; they are really wonderful."

All participants had similar, yet different interpretations of the running of the school. Betty said that the operational systems and the running of the school were "brilliant and unbelievable". She explained:

> "The school system is right and the people managing it are wonderful. Everything is controlled and managed on a high level. Because many things in the school are in place, things run smoothly. They always keep an eye one you, making sure your work is done right and keeps me up to date about my progress."

The participants' account of the conditions and school culture provide a brief overview of their situational self as supported by White (2013). As such, it also links up with Kelchterman's (2009) system of beliefs and knowledge about teaching as a profession. Although they had a shared identity in their teaching profession and also the school, they had different opinions based on their personal attributes and previous experiences in other schools (Canrinus, 2011).

According to Alice the school used numerous systems and "many umbrellas" to support teachers and other role players to attain their goal of excellence in teaching and learning. She cited the effective functioning and fixed structure of the administration,

communication and monitoring systems to be "great" and "wonderful", especially with the many people in the school. The way in which "things occurred, that they work correctly" in the school, made it easier for Christine to teach and not to be concerned about other problems that she had to solve.

Participants identified the important role of leadership, school rules and policies that guided staff in executing their responsibilities in the school. This enabled Dorothy as the Head of Department to lead members in her department as a role model to understand and even accept new provincial and national departmental policies and rules. All participants expressed their gratitude for the principal's leadership style who did his very best to run the school effectively. Christine in particular referred to him as a "fantastic manager" who was involved in all school activities, listened to all role players who were in total contrast to principals in her previous schools. The findings are in line with the study of Oswald and Perold (2015, p. 7): "A school leader with the capacity to act as a positive role-model for teachers can inspire feelings of value and safety, empowering them to take risks and to strive to become the best they can be". With regard to the school rules and policies, Christine believed that all schools had similar school rules and policies, but that their execution differed. The way in which rules and policies were realised in the school made her feel "protected and safe". Betty attributed her "tremendous" professional growth to the smaller Mathematics classes of 15 students per class.

Betty repeatedly appreciated the assistance of the teaching corpse who provided the necessary guidance and assistance for her to learn and develop every day. She said:

> "The teaching corpse is really great people with caring hearts and they want to know where they can help. There are mentors everywhere, you can go anywhere and there will be someone to help."

Similar to the study of Hodges and Cady (2012) participants noted the value of dialogue with colleagues about Mathematics and the teaching thereof. It was the existence of the formal and informal collaborative structures in the school that had a major impact on participants' professional development. The current principal who believed that the success in teachers' classrooms depended 100% on teacher collaboration instituted vertical and horizontal teams for collaboration since 2011 (Steyn, 2015). He removed the previous system of isolation among teachers and also ensured continuity among grades. Teachers in the Mathematics Department formally met once a term, while grade level teams convened once a week to focus on topics that were relevant to their teaching. The purpose during formal and informal interactions was for teachers to share ideas that would support and improve their practice. For Betty, the grade 7 Mathematics team was "an unbelievable team". They worked together on a daily basis, constantly shared the subject content and their teaching

strategies, supported each other, solved problems that occurred and "searched for the best for each learner". Moreover, it was a great advantage that the classes of teachers in a particular grade were near each other that facilitated their informal collaboration. Christine viewed their collaboration in teams as pleasant and the team members even helped her to get another perspective on many other teaching related issues. Alice on the other hand experienced a healthy competition among team members that motivated her to improve her performance in her classroom. Although Dorothy was the Head of Department and had many years of teaching experience in Mathematics, her colleagues had higher Mathematics qualifications that she had. This compelled her to have frequent academic conversations with them, formally and informally to ask for assistance and suggestions. Like in Christine's case she valued the pleasant collaboration among team members. Moreover, she appreciated the enthusiasm and motivation of teachers that made it easy for her to lead them.

This is in line with the findings by Castañeda (2011, p. 2) that a teacher's "identity develops as a trajectory of participation and interaction in a teacher community". However, it implied that each team member had to contribute to the team and "work and grow together" to ensure effective learning in their teams (Mason, 2012, p. 186). The findings showed that the participants used the collaboration opportunities to improve their practice for the sake of their own performance and that of their students (Vähäsantanen, Hökkä,

Eteläpelto, Rasku-Puttonen, & Littleton, 2008). For Cross and Ndofirepi (2015), such situations in a collaborative environment are an essential part in negotiating the self. This view links up with that of White (2013) who refers to the situational self that develops and also changes through relationships in contexts. Wenger's (2000) notion of situated learning is also supported in this study which shows that social interaction among team members is critical for individuals' professional development. Similar to White's study (2014) the participants indicated that their understanding of school related issues increased when working with more experienced teachers. It was in their interaction and relation with others that participants realised "what they need or want to be" (Mason, 2012, p. 165). Dorothy, the only participant who experienced the change to teacher collaboration elaborated:

> "Team work is very important for effective learning, to teach the subject effectively and lead learners effectively through opinions and guidance, and commentary form colleagues. You can always learn from the younger ones. I love it, because sometimes you fall into a rut by doing things in the same way."

Even with the conducive school context and participants' positive experiences of its impact on their professional identity, they expressed a strong, yet unique sense of professional identity (White, 2014). Dorothy's account of her professional identity showed that the school context played a major role in her current positive identity. She experienced "absolute trust" in her professional abilities and was even appointed as Cluster leader for Mathematics in the District. However, even after 17 years in the Mathematics Department she realised that she had not yet "arrived" and that she needed to be open in her development because there was still room for improvement. In a similar way, Christine felt quite satisfied and confident about her current professional identity. She was nevertheless open to adapt and to develop when faced with new circumstances in the profession. With not that many years of teaching experience, Alice believed that her identity was of a high professional standard which she attributed to the school context. However, she did not want to stagnate and also felt responsible for her own identity development to become a better teacher. Alice's view was echoed by Betty who acknowledged the unbelievable role of the school, the principal and staff in her current positive identity. Yet, she recognised many areas that required further development and expressed her eagerness to become the best Maths teacher she could be. The accounts of participants clearly show that a professional identity is an unstable an ongoing process and that it is constructed and reconstructed depending on an individual's stories over a period of time (Bukor, 2011; Jamil et al., 2014; Wilkins et al., 2012). Their unique identities also reveal the five components of Kelchtermans' (2009) personal interpretative framework: self-image, self-esteem, task perception,

job-motivation and future perspective.

In relation to Bukor's (2011) interpretation of the personal construct theory, the participants revealed a retrospective and forward-looking construct of their professional identities. In their retrospective construct they showed how they reconstructed their previous stories as a result of impact of the current school context. With regard to the forward-looking construct they all expressed a desire to develop and become better teachers.

CONCLUSIONS

This study focused on the impact of the school context on the perceptions of teachers' professional identity at a particular point in time. The construction and reconstruction of individuals' professional identities are, however, a complex reality which makes it difficult to isolate it from other personal and professional influences at a given stage.

The following conclusions can be drawn from the study:

- The professional identity of teachers is an active and ongoing process in which multiple experiences influence its development.

- Contextual factors within the school environment were found to have a huge impact on teachers' identity. It means that the complexity of professional identity needs to be taken into account by reform designers because teachers are the ones who embrace, reinterpret and develop such efforts.

- A conducive school environment has the potential to contribute to positive experiences of teachers, and ultimately to a positive professional identity in which they can be more effective in their classroom practice.

- Formal and informal teacher collaboration opportunities as well as supportive working conditions in which teachers share and debate their classroom experiences and challenges are central to teachers' construction of a positive teacher identity.

- Being members of collaborative structures allows not only for an individual, but also as a collective recognisable phenomenon.

This study focused on the impact of the school context on the construction of Mathematics teachers' professional development. Compared to other classes in the school, these Mathematics teachers worked in classrooms with 15 students per class. A study that focuses on the professional identities of other teachers in the school is recommended. Such a study could identify the factors in the school environment that play a key role in the construction of teachers' identity. I also recommend narrative enquiries to determine how challenging conditions in disadvantaged schools can be adapted to enhance the professional identity of teachers in those schools. Such narratives which focus on the self and the contexts may be enlightening to assist other schools in supporting the development of positive professional identities of teachers.

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Export Tax Policy in Indonesia: The Impacts on Competitiveness and Price Integration of Cocoa Products

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ABSTRACT

Until 2010, the Indonesian cocoa exports had been dominated by cocoa beans, which led the government to stimulate the processing industry by implementing cocoa export tax policy. This study aims to determine the impact of cocoa industrialisation policy on the competitiveness of cocoa beans and processed products as well as the integration of cocoa prices. The implementation of export tax policy significantly decreases cocoa bean export competitiveness, contradictory with intermediate products. Export tax policy also has no impact on the integration of domestic and international cocoa market. In developing the cocoa downstream industry, on-farm support in producing fermented cocoa beans is vital.

Keywords: Cocoa, comparative advantages, price, industry, Indonesia JEL classification F1 H2 H3 Q1

INTRODUCTION

As one of the largest cocoa bean producers in the world, the cocoa based industry is one of the priorities in the agro-industry sector in Indonesia. As such, the industry has gained government incentives for its development. The policy which is regulated by Presidential Regulation No. 28/2008, is subject to Indonesia's National Industry Policies and followed by the particular instrument which is the implementation of export tax for cocoa beans in 2010. The major consideration of this policy is to develop cocoa based downstream industry which is value added (Kemenkeu, 2010).

The importance of industrialisation policy can be explained by the trade performance and competitiveness of

Indonesian cocoa. Some studies have shown that Indonesian cocoa exports were dominated by cocoa beans which were more competitive than processed products (Hasibuan, Nurmalina, & Wahyudi, 2012a; Lubis & Nuryanti, 2011; Rifin, 2013). The policy was expected to deliver advantages to the national economy such as increasing in value-added and export competitiveness, opening employment opportunities, improving cocoa farmers' welfare, and eventually enhancing the contribution of this commodity to the economic growth (Arifin, 2013; Drajat, 2011; Lubis & Nuryanti, 2011; Sa'id, 2009; Syam et al., 2006).

The impact of these policies have been widely studied, both before and after implementation (Arsyad, Sinaga, & Yusuf, 2011; Hasibuan, Nurmalina, & Wahyudi, 2012b; Permani, 2011, 2013; Rifin, 2015; Syadullah, 2012; Tresliyana, Fariyanti, & Rifin, 2015). For example, the cocoa export tax might encourage the growth of domestic cocoa processing industry, as well as the use of domestic cocoa beans as its raw materials. Hence, it has resulted in a high demand for local cocoa beans, eventually effecting a significant decline in the export (Hasibuan, Nurmalina, & Wahyudi, 2012c; Syadullah, 2012). Furthermore, there is a possibility that Indonesia will become a net importer of cocoa beans in the future (Permani, 2013). At on-farm levels, Arsyad et al. (2011) cautions that the policy could decrease the production of cocoa beans. However, it will increase competition between exporters and domestic processing industries that will eventually generate a positive impact on the farm gate price (Rifin, 2015). Nevertheless, some researchers believe that the market structure of cocoa beans tends to be oligopsony where traders have a dominant role in the price setting process (Ermiati, Hasibuan, & Wahyudi, 2014; Sisfahyuni, Saleh, & Yantu, 2011; Yantu, Juanda, Siregar, Gonarsyah, & Hadi, 2010).

The changes in the structure of Indonesian cocoa trade after the industrialisation policy have had an impact on export competitiveness. Tresliyana et al. (2015) examines that the Indonesian cocoa bean competitiveness is showing a declining trend, whereas the processed cocoa is becoming more competitive. In price integration context, Rifin (2015) found that the international price was transferred entirely to the domestic price. On the other hand, price or market integration could establish competitiveness (Barrett, 1996). Products which have better market integration tend to obtain higher competitiveness (Munch & Sørensen, 2000). However, there are gaps in the literature, particularly in the comparison assessment of pre and post policy, with regard to competitiveness and price integration. Thus, this study aims to determine the impact of cocoa industrialisation policy on the competitiveness of the export of cocoa beans and processed products as well as the integration of cocoa prices in the domestic and international markets.

MATERIALS AND METHODS

Data

Competitiveness analysis used annual export and import data (2001-2015) from International Trade Center and Indonesian Statistics Agency. For market integration analysis, monthly price data from January 2005 until December 2015 was used. International cocoa beans' monthly price data were collected from World Bank, while the domestic data was obtained from the Ministry of Trade. In consideration to adjustments in the international and domestic prices, this study used USD-IDR monthly exchange rate from the Bank of Indonesia.

Data Analysis

Competitiveness Analysis. The changing of Indonesian cocoa export competitiveness (cocoa bean, cocoa paste, cocoa butter, cocoa powder and chocolate) was measured by Revealed Comparative Advantage (RCA) and Revealed Symmetric Comparative Advantage (RSCA) criteria, for before and after the industrialisation policy in 2010. These criteria are commonly used to measure product competitiveness of a country in the international market (Leromain & Orefice, 2014; Mallick & Marques, 2016; Nath, Liu, & Tochkov, 2015; Stângaciu & Harja, 2013; Startienė & Remeikienė, 2014; Wahyudi, 2016). RCA is formulated as follows:

$$RCA = \frac{X_{ijt}/X_{jt}}{W_{it}/W_t}$$

X_{ijt} donates the cocoa export value from Indonesia to the world market, X_{jt} is total value of Indonesian export to the world market, W_{it} is cocoa export value from the whole world, and W_t is the total value of world export. The RCA index may have a value from 0 to infinity. If the value is between 0 to 1, it will indicate that Indonesia is not competitive for particular products.

The measurement of RCA is asymmetric, which is considered as a major problem of this index. However, a method to address this issue has been developed using RSCA (Laursen, 2015; Nath et al., 2015). So, RSCA is an improvement measurement of RCA in determining the comparative advantage of trade. RSCA is formulated as:

$$RSCA = \frac{RCA - 1}{RCA + 1}$$

In regards to determining the impact of industrialisation policies on competitiveness, t-test was performed on the RCA through 2-sample t-test, which is mathematically formulated as follows:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\left(\frac{S_1^2}{N_1}\right) + \left(\frac{S_2^2}{N_2}\right)}}$$

The value of $\bar{x}_1$ and $\bar{x}_2$ are average of RCA before and after the export tax policy, respectively while S_1 dan S_2 are standard deviation and N_1 dan N2 are total series data.

Integration of Domestic and International Market Analysis. The measurement of market integration is used to assess the price interaction in different markets (domestic

and international) where the movement of prices in each market indicates the degree of market integration (Goletti, Ahmed, & Farid, 1995). Price integration is used as an indicator of market integration through testing co-integration between the prices which is econometrically considered to be a better approach (Adiyoga, Fuglie, & Suherman, 2006). In examining the integration of the international and domestic market, it is important to analyse the integration of cocoa bean prices of both markets. The study analysed the interdependence between domestic and international markets before and after implementation of the industrialisation policy of cocoa. The method used is the vector auto-regression (VAR) and vector error correction model (VECM), adapted from Rifin (2014). VECM is used if the variable is not stationary and co-integrated at the data level (Hahn, Stewart, Blayney, & Davis, 2016). The method is suitable

to determine the interdependence of the variable time series. Data were analysed with Eviews software package.

RESULTS

Impact of Industrialisation Policy on Cocoa Trade Competitiveness

Cocoa industrialisation policies have been implemented by the Indonesian government where the main instrument is cocoa export tax. This policy has led to significant changes in the structure of Indonesian cocoa exports. In the period of 2001 to 2010, Indonesian cocoa exports were still dominated by cocoa beans. However, the opposite occurred for the period between 2011 and 2015 which showed the volume of export of processed cocoa (intermediate and final product) exceeded cocoa beans (Figure 1). Thus, in general, the implementation of tariff policy cocoa exports in 2010 increased export of processed products.
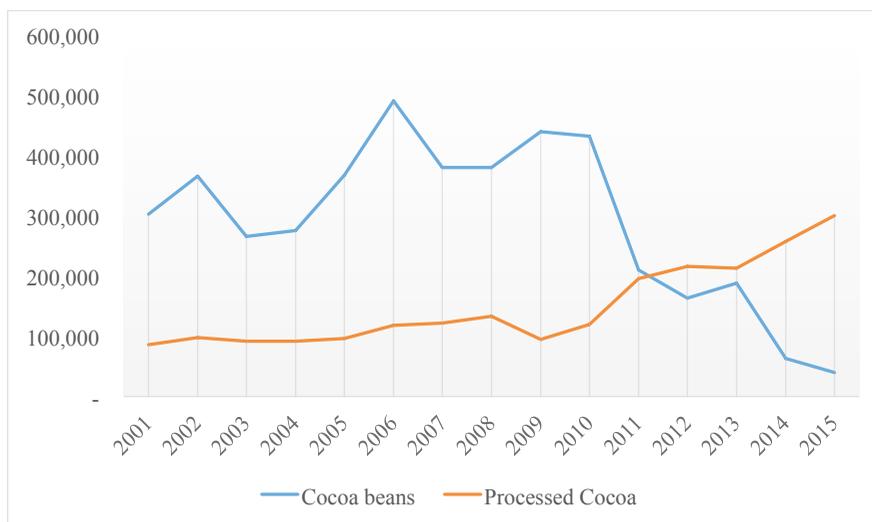
Figure 1. Cocoa bean and processed cocoa export volume, 2001- 2015

The changes in export structure had an impact on the shifting of volume and competitiveness of Indonesian cocoa exports, for both cocoa beans and processed products. In the period of 2001 to 2010, the average export volume of cocoa beans reached 369,992 tonnes per year, while in the period of 2011 to 2015, only 132,989 tonnes were exported annually. With the criteria of revealed comparative advantage (RCA), the export competitiveness of cocoa beans (4-digit HS Code 1801) experienced a significant decline after the implementation of the export tax policy. In the period of 2001 to 2014, the RCA value of cocoa bean exports was greater than 1, which indicates that Indonesia still had a comparative advantage as an exporter of cocoa beans. However, there was a significant decline in comparison to the period before and after export tax implementation. The average value of RCA cocoa beans prior to implementation of the policy was 14.55, even in 2002, it reached 22.55 (Figure 2). On the other hand, the average value of RCA after the policy only reached 4.20 (Figure 2). Statistically, RCA values before and after the application of the export tax policy was significantly different at the level of 5% (t-statistic = 7.53; p-value = 0.000) (Figure 3).
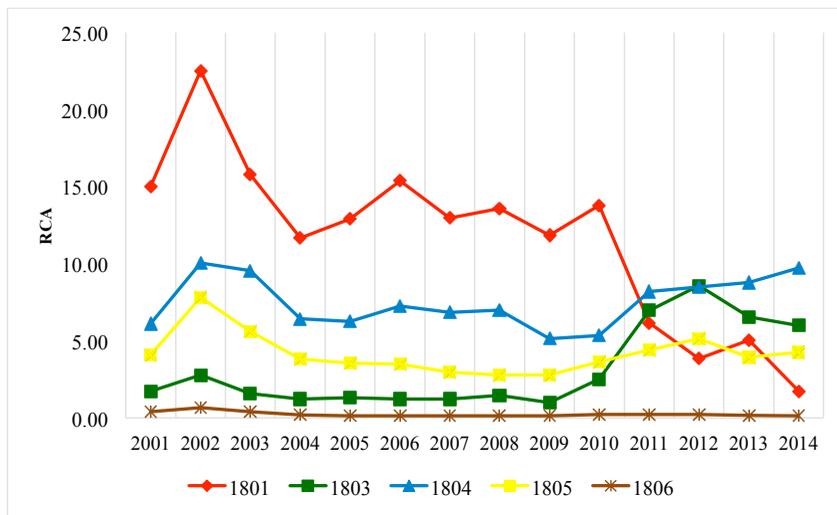
Figure 2. Dynamics of RCA for cocoa bean (1801), cocoa paste (1803), cocoa butter (1804), cocoa powder (1805), and chocolate and food preparation containing cocoa (1806) export
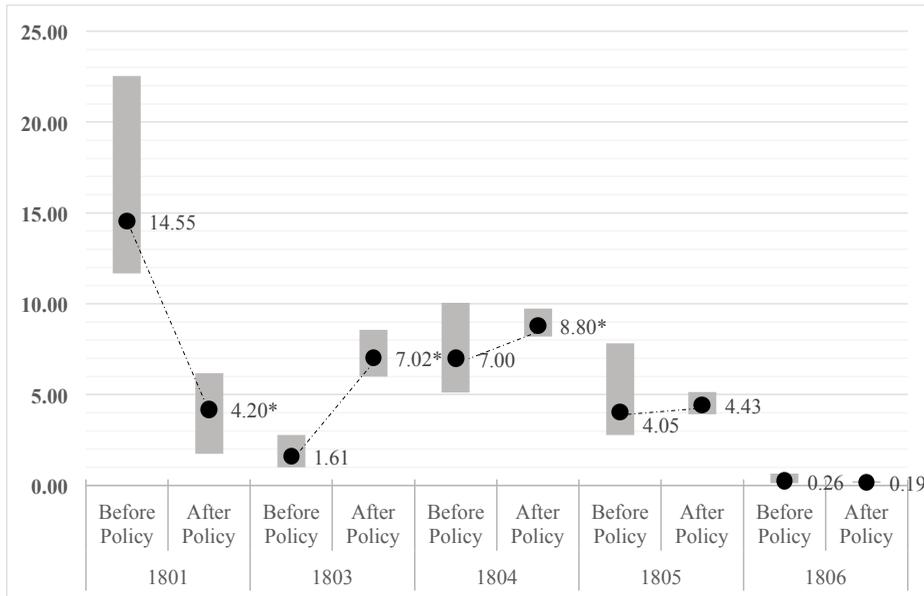
Figure 3. Box plot t-test before and after export tax policy for cocoa bean (1801), cocoa paste (1803), cocoa butter (1804), cocoa powder (1805), and chocolate and food preparation containing cocoa (1806)

The decline of cocoa bean competitiveness is inversely related to cocoa paste (HS 4-digit code 1803). Since the implementation of cocoa export tax policy, cocoa paste export as one of the intermediate cocoa products has increased significantly. The annual average volume of exports of cocoa paste from 2001 to 2010 reached only 16,091 tonnes, yet increased to 75,994 tonnes after the implementation of the policy (2011-2015). Regarding competitiveness, in the period between 2001 and 2010, the average value of RCA cocoa paste only reached 1.61; in 2009 the RCA value dropped 0.99 which indicated that the product was not competitive. On the contrary, following the policy, the competitiveness increased significantly with an annual average of 7.03 RCA. The increasing competitiveness of cocoa paste was also confirmed by statistical

tests (t-test) which significantly rose after the implementation of the policy (t-statistic = -9.26; P-value = 0.003) (Figure 3).

Cocoa butter (HS 4-digit code 1804) is another intermediate product of cocoa which has the largest proportion of the Indonesian export volume of processed cocoa. The cocoa butter industry had developed well before the introduction of the export tax policy, thus further grew after its implementation. As shown by the average volume of exports of cocoa butter, from 2001 to 2010, it reached 44,345 tonnes, whereas after the policy the export volume doubled to 95,543 tonnes. In terms of competitiveness, the RCA value increased from 7.00 to 8.81 which is statistically significant at 5 percentile level. Another intermediate cocoa product, cocoa powder, also found a positive impact of the

export tax policy on export volume. This is indicated by the increase in the average annual export volume from 30.142 tonnes to 68,720 tonnes per year. Unfortunately, the competitiveness based on RCA did not see a significant improvement, even though it was still valued to have a comparative advantage (Figure 2 and Figure 3).

Chocolate and other food preparations containing cocoa (HS 4-digit code 1806) are cocoa final products. Exports of these products also increased after the implementation of the export tax policy. The average annual export volume prior to the policy amounted to 14,444 tonnes, rising to 15,976 tonnes. However, the policy has not been able to raise the competitiveness of Indonesian chocolate products. During the analysis period, the value of this product RCA never reached one which indicated

Indonesian chocolate products as not competitive, even the RCA values tended to decrease. The average value of RCA before the policy was 0.25, but subsequently fell to 1.875 (Figure 2). However, statistically, there was no significant difference at the level of 5 percentile (Figure 3).

The RCA average measurement for each product of cocoa exports showed that prior to the implementation of the export tax policy, cocoa beans had the highest comparative advantage, followed by cocoa butter, cocoa powder and cocoa paste. However, after the implementation of the policy, the largest comparative advantage was owned by cocoa butter, followed by cocoa paste, cocoa powder and cocoa beans. Meanwhile, chocolate and other food containing cocoa did not have any comparative advantage (Figure 4).
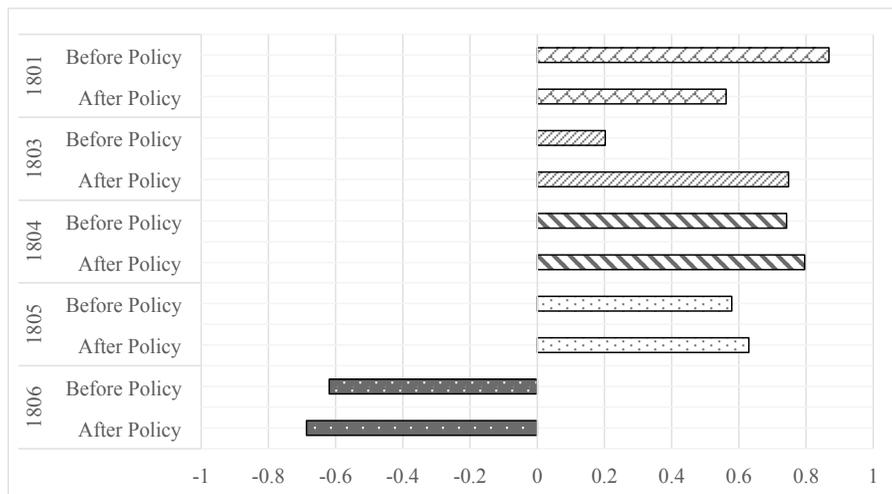
Figure 4. Average RSCA of cocoa export product (HS 4 digit) before and after cocoa export tax policy implementation

(a)

(b)
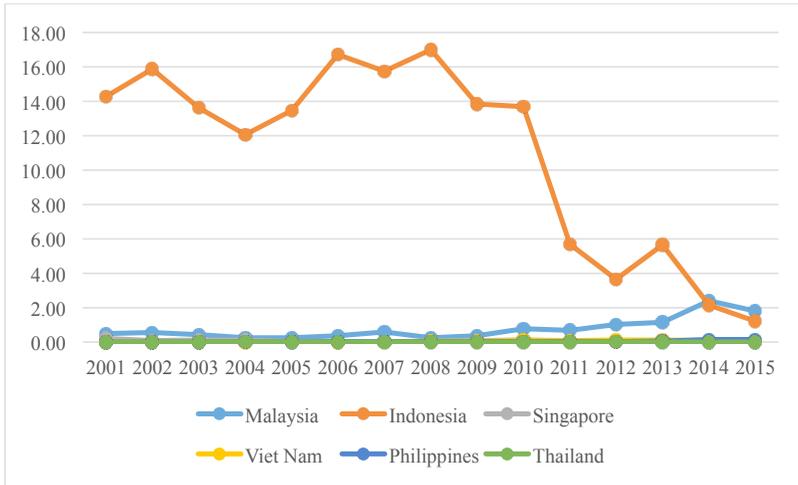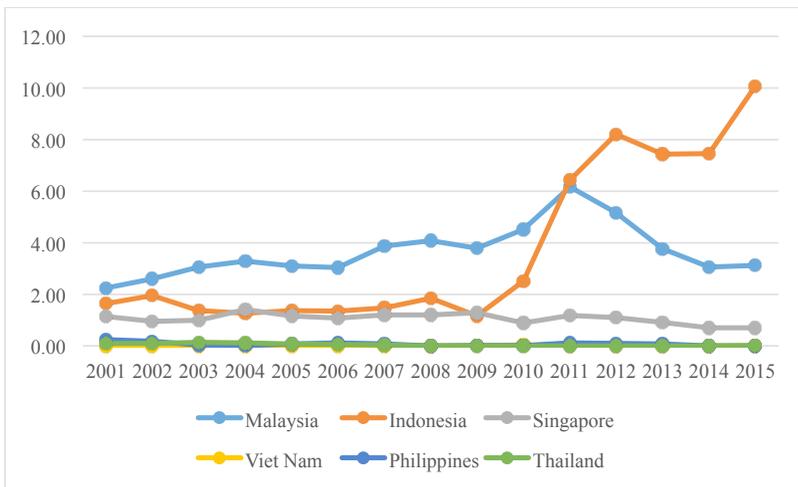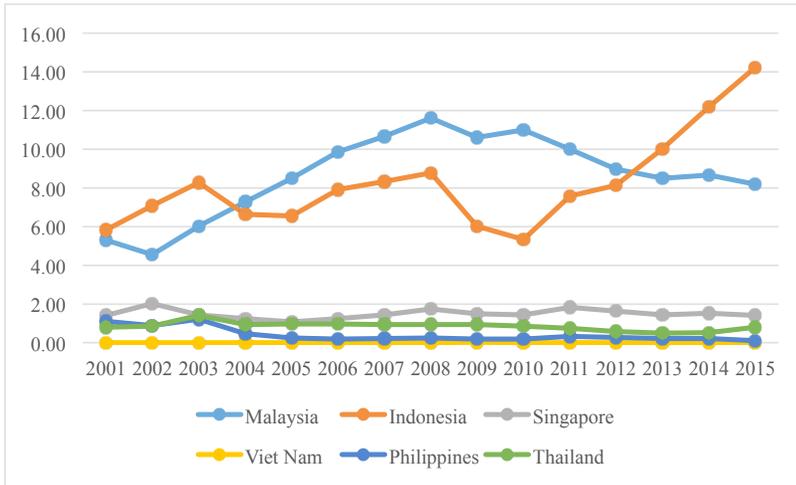
(c)
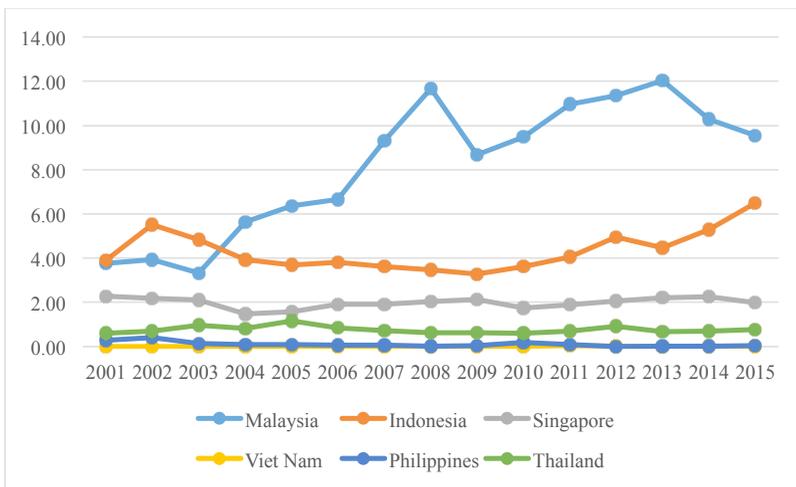
(d)
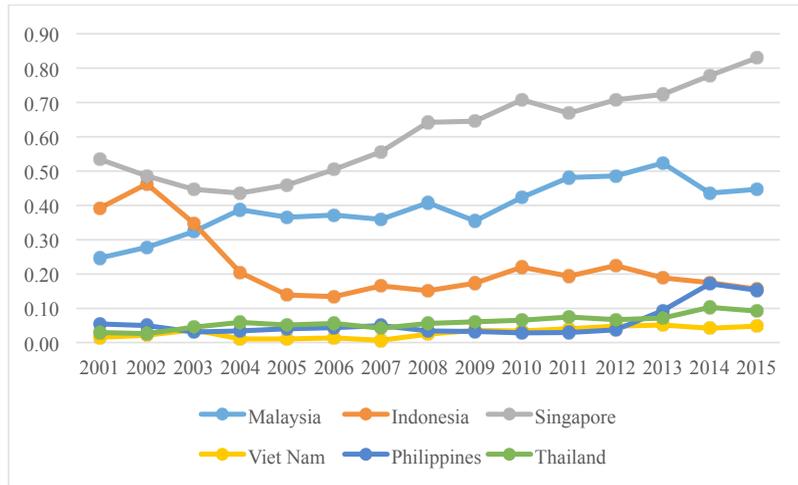
(e)

Figure 5. Dynamics of RCA for (a) cocoa bean (1801), (b) cocoa paste (1803), (c) cocoa butter (1804), (d) cocoa powder (1805), and (e) chocolate and food preparation containing cocoa (1806) between ASEAN countries, 2001-2015

Comparing the position of Indonesia with other ASEAN countries, export tax policy has changed the competition structure of cocoa and its preparation (Figure 5). Before the policy, Indonesia was very dominant as a cocoa bean exporter, but since 2014, RCA of Malaysia has been higher than Indonesia, even though its cocoa bean production is lower than Indonesia. The increasing RCA for cocoa downstream products could increase the competitiveness of Indonesia in the ASEAN region. In 2015, RCA value of Indonesia cocoa paste (1803) was the highest, that was 10.07, compared with Malaysia (3.12), and Singapore (0.71). The same pattern was also seen for cocoa butter (1804), where the RCA value of Indonesia, Malaysia and Singapore in 2015 was 14.24, 8.19, and 1.42, respectively. However, Malaysia was still the most competitive for cocoa powder (1805), despite Indonesia's increasing competitiveness. Unfortunately, none of the ASEAN countries showed any competitiveness for cocoa final products, with the RCA index lower than 1. In comparison, , Singapore had the highest value (0.83), followed by Malaysia (0.45), Indonesia (0.18), the Philippines (0.15), Thailand (0.09), and Vietnam (0.05).

Impact of Industrialisation Policy on Domestic and International Market Integration

Unit Root Test. The variables used in this study was cocoa price in the domestic and international market. The international price was price-adjusted with IDR-USD exchange rate. Unit root test results on both variables showed that the domestic and international

cocoa prices have a unit root, or are not stationary at the data level, both before and after the implementation of cocoa export tax policy. However, on the first difference, all the variables tested were stationary at the level of 5 percentile (Table 1).

Table 1

Augmented Dickey – Fuller test for cocoa price in domestic and international market

	Before policy				After policy			
	Level		1st Difference		Level		1st Difference	
	t-Statistics	Prob.*	t-Statistics	Prob.*	t-Statistics	Prob.*	t-Statistics	Prob.*
PDOM	-0.809	0.810	-6.897	0.000	0.009	0.956	-9.044	0.000
PWRLD	-0.628	0.856	-6.238	0.000	0.437	0.983	-8.035	0.000

Note: Bold text means significant at 5% level

Lag Optimum Test. The test based on three criteria, Akaike Information Criterion (AIC), Schwarz Criterion (SC) and Hannan-Quinn Criterion (HQ), indicates that optimal lag was achieved at lag 1, both before and after cocoa industrialisation policy (Table 2). So, lag 1 was used in the VAR model.

Table 2

VAR Lag optimum test result

Lag	Before policy			After policy		
	AIC	SC	HQ	AIC	SC	HQ
0	36.524	36.599	36.553	37.069	37.141	37.097
1	33.438*	33.663*	33.524*	33.313*	33.530*	33.397*
2	33.511	33.886	33.654	33.3156	33.677	33.4556
3	33.502	34.028	33.704	33.348	33.855	33.5445
4	33.560	34.235	33.818	33.452	34.103	33.704
5	33.701	34.527	34.018	33.440	34.236	33.748
6	33.602	34.577	33.976	33.491	34.431	33.856
7	33.577	34.703	34.009	33.603	34.688	34.024
8	33.717	34.992	34.206	33.668	34.898	34.145
9	33.771	35.197	34.317	33.723	35.097	34.256
10	33.878	35.454	34.482	33.606	35.125	34.194

Note: AIC = *Akaike Information Criterion*

    SC = Schwartz Criterion

    HQ = Hannan-Quinn Criterion

    * indicates lag order selected by the criterion

Price Co-Integration. Co-integration test for domestic and international prices was conducted by Johansen Co-integration Test with specification models 'no deterministic trend' and lag interval 1, both before and after implementation of the export tax policy. Max-Eigen Statistics criteria shows that in each tested period (before and after implementation of the policy), there was one co-integration equation of domestic and international prices at the level of 5 percentile in the long term (Table 3). The existence of co-integration indicates that in the formation of domestic cocoa prices, world cocoa prices are used as a reference.

Table 3
Co-integration test between cocoa price in domestic and international market

Hypothesised No. of CE(s)	Eigenvalue	Max-Eigen statistic	0,05 Critical value	Prob.**
------------ Before Policy ------------				
None *	0.245	17.424	15.892	0.028
At most 1	0.029	1.816	9.164	0.814
------------ After Policy ------------				
None *	0.275	21.259	15.892	0.006
At most 1	0.017	1.123	9.1645	0.935

Note: * Max-eigenvalue test indicates 1 cointegrating equation(s) at the 0.05 level

Co-integration of domestic and world cocoa prices is also evidenced from the equation estimation of vector error correction model, before and after policy implementation (Table 4). Before implementing export tax policy, the increase in world cocoa prices by 1%, boosted domestic cocoa price of 0.9683%. Meanwhile, after the policy was in practice, the increase in world cocoa price of 1% was only responded with an increase in the domestic price of 0.7678%.

Table 4
VECM Estimations, before and after Export Tax Policy Implementation

Co-integrating equations	Coefficient	Standard error	t-statistics
PWRLD1(-1)	0.968	0.020	47.202*
PWRLD2(-1)	0.768	0.019	39.951*

Notes: *) Significant at 5% level

DISCUSSION

With the RCA and RSCA criteria, it can be determined that the application of cocoa export tax policy as the main instrument for the government to develop the cocoa industry was able to encourage growth of intermediate cocoa products such as cocoa paste, cocoa butter and cocoa powder. The policy also increased the competiveness of Indonesian intermediate products among ASEAN countries. Meanwhile, competitiveness of final products (chocolate and other food preparations containing cocoa) remained unchanged. This means that the policy was only able to encourage the cocoa export structure of raw materials into intermediate products. The domination of intermediate product exports indicates that the added value derived from the cocoa industry development policy was lower than projected. In line with the assertion made by Liefert and Westcott (2016), export tax policy could give an advantage for certain economic groups, such as downstream industry. On the other hand, there was an increase in the volume of import of chocolate and other food preparations containing cocoa. During the period between 2010 and 2015, there was an annual increase of 21.15% for imported chocolate and other cocoa containing food preparations. In tandem, its yearly exports decreased by 3.78%, thus, implying a rise in domestic chocolate consumption. However, this opportunity has not been utilised by the domestic industry in the manufacturing of final products, because they are still focused on producing intermediate products.

Other facts known from the results of this study indicate that export of Indonesia processed cocoa is dominated by cocoa butter which can be produced using raw materials of non-fermented cocoa beans. This can be considered as a consequence of at least three factors. Firstly, Indonesia cocoa beans production is mostly in non-fermented cocoa bean forms (Hasibuan, et al., 2015; Perdew & Shively, 2009). Secondly, Towaha, Anggraini, and Rubiyo (2012)'s study revealed that the cocoa bean fermentation process does not affect the quality of the cocoa butter. Thirdly, one of the advantages of Indonesian cocoa beans is its high butter content (Neilson, 2007). However, Neilson (2007) believes this may cause Indonesian cocoa to relatively have limited product diversification in the world market. In addition, the effort to increase cocoa paste and cocoa powder production is restricted by the availability of fermented beans. On the other hand, attempts to import fermented cocoa beans is less profitable because it is subject to 5% import duty. Previous studies showed that cocoa bean fermentation process is essential to produce high quality of cocoa paste and cocoa powder (Joel, Pius, Deborah, & Chris, 2013; Towaha et al., 2012). In addition, in producing good quality chocolate, raw material of fermented cocoa beans is essential (Lima, Almeida, Nout, & Zwietering, 2011; Misnawi & Ariza, 2011). Thus, the low production of fermented cocoa beans has been the cause of undeveloped chocolate industry in Indonesia.

There is a significant opportunity for improving the quality of cocoa beans domestically through fermentation process. The main problem lies in the reluctance of farmers to produce fermented cocoa bean due to the very low price incentive compared with non-fermented cocoa beans (Drajat, 2011; Hasibuan et al., 2015). Through the profits earned from export tax policy, the domestic cocoa processing industry should be able to provide attractive price incentives for farmers to produce fermented cocoa beans (Listyati, Wahyudi, & Hasibuan, 2014). Farming institutions need to play a more effective role to strive for higher price for better quality (Hasibuan et al., 2015). In turn, this will encourage improvement in the quality of national cocoa beans as well as increase farmers' income while supporting the development of the national cocoa industry to be more value-added and competitive (Hounkonnou et al., 2012).

As stated by Martin and Anderson (2011), export restriction policy, such as export tax, has an impact on price surge and prevents farmers to obtain higher world price (An, Qiu, & Zheng, 2016). For example, the government will raise export tax to reduce the domestic price as a response to increasing international price. On the other hand, farm level prices tend to show asymmetric price transmission, where they are likely more reactive to price decline than rise (Hahn et al., 2016). These findings reveal that the implementation of cocoa bean export tax policy since April 2010 has not made an impact on the integration of domestic market and the world market.

The formation of domestic prices of cocoa beans is reliant upon international prices as reference. This integration occurs because the disclosure of information price of cocoa is good enough. The results of the study by Rifin (2015) also showed that farmers obtain pricing information from exporters based on reference price of the New York Board of Trade (NYBOT). Matous, Todo, and Pratiwi (2015) believe that the ownership and mobile phones can help farmers to acquire pertinent pricing information so as to avoid dishonesty in pricing practice, as occurs in Ghana where buyers do not reward farmers with the true value of cocoa (Peprah, 2015).

In the case of Indonesia, however, export tax caused a lower price transmission after application of the policy, which is indicated by a lower coefficient of co-integrating estimation. This might be due to tariff scheme for cocoa export which follows the fluctuation in international price. Permani (2013) estimated that export tariff implemented by the government was higher than the optimal rate, causing the competitiveness of cocoa beans to decrease significantly, even lower than Malaysia. This finding was previously supported by Barrett (1996), and Munch and Sørensen (2000), where lower market integration decreased competitiveness. Hence, it needs to be considered that export tax is not a single instrument to spur the development of an industry. Yilmaz (2006) reminds that export tax should be maximised to increase the welfare, particularly for countries which have significant market power such as Indonesia. It is important to

consider that cocoa farming can be a crucial strategy to increase income growth for poor rural farmers (Arsyad & Kawamura, 2011; Klasen, Priebe, & Rudolf, 2013). In addition, Narayanan and Khorana (2014) believe that the mobilisation of production factors and technologies would be able to increase expansion for process industries. Hence, there are other alternative strategies to consider for industrialisation, apart from export duty for raw materials.

CONCLUSIONS

Government policies in developing downstream cocoa industry by implementing export tax instrument since 2010 have been able to improve the performance of cocoa processing industry significantly. With regards to the structure and competitiveness of exports, the policy was able to drastically suppress cocoa bean exports and increase the export of processed cocoa products. In addition, export competitiveness of cocoa beans and processed cocoa, particularly intermediate products (cocoa paste, cocoa butter and cocoa powder) experienced opposing trends. The integration of the domestic and the world cocoa market did not change after the implementation of the policy. However, the policy was an advantage to the domestic processing industry in the acquisition of raw materials for cocoa beans. This benefit should be shared with cocoa farmers, particularly in improving the quality of cocoa through fermentation process by providing incentives for a better price. It is important to encourage farmers to produce fermented cocoa beans, and also

to stimulate the development of chocolate industry.

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A Path Analysis of the Relationship between Job Stress and Care for Ageing Parents in Thailand: A Case Study of Thai Migrant Workers

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ABSTRACT

This study examines internal labour migration in Thailand to study the stress level of workers who have to care of and look after their ageing parents. A cross-sectional survey was administered to 300 Thai migrant labourers who continuously have to attend to their ageing parents. Thai Job Content Questionnaire (Thai-JCQ) was used to gather information on job stress level using the Job Demand Control (JDC) model developed by Karasek. Findings show that distance, wages, and working conditions have a direct effect on job stress. Wages had the most direct relationship with job stress with a standardised regression weight of 0.400 (p-value<0.01). In conclusion, distance, wages, and working conditions, each directly impacts job stress. However, caring for ageing parents is a mediator and a moderator of job stress levels.

Keywords: Job stress, Thai migrant labour, path analysis, ageing parents

INTRODUCTION

Thailand has experienced rapid economic growth in recent years and a rise in the cost of living especially after the AEC (Asian Economic Community) was established by ASEAN in 2015. This has particularly affected internal labour migration in Thailand (Ministry of Social Development and Human Security, 2013; Niyomsilpa, 2011). A survey by the Ministry of Social Development and Human Security in 2013 showed that Thai migrant workers experienced high levels of job stress and

tend to work in the same regions rather than in different regions in Thailand (Bureau of Policy and Strategy, 2015).

This is heightened with the stress of looking after ageing parents, some of whom suffer from mental illnesses, thus, escalating the emotional and financial costs for the migrant workers. As Thai culture places great importance on looking after ageing parents (Yodthong, Seeherunwong, Kongsuriyanavin, & Au-Yeong, 2014), this would have a tremendous effect on the mental health of migrant labourers that is further aggravated by job stress. In Thailand, there is significant cultural emphasis placed on caring for elderly parents which is quite different from the Western culture. As most of them are migrants, it makes it harder for them to look after their sick and ageing parents (Yodthong et al., 2014). Studies have shown that poor working conditions, job insecurity, poor career opportunities, distance, and transport problems are linked to job stress, anxiety, and depression (Georges, et al., 2013; Grzywacz, et al., 2011; Hiott, Grzywacz, Davis, Quandt, & Arcury, 2008).

A study in China found that working hours, wages, family support, housing conditions, age, and work characteristics are associated with mental health problems such as stress (Wong & Leung, 2008). There are both physical and psychological effects of heavy workload and emotional stress on an individual (Arcury, Grzywacz, Chen, Mora, & Quandt, 2014).

Previous studies from the public health perspective under the psychological dimension and the social determinants of health have shown the causes of job stress among migrant workers are directly associated with the complexity of working conditions such as heavy workload (Amponsah-Tawiah, Leka, Jain, Hollis, & Cox, 2014; Dunlavy & Rostila, 2013; Filiz, 2014; Kaewanuchit & Sawangdee, 2016a; Kaewanuchit & Sawangdee, 2016b), high job responsibility (Levy, Wegman, Baron, & Sokas, 2011), or different job characteristics such as job stress among Thai farm workers under globalisation (Kaewanuchit, Muntaner, Labonte, & Johnson, 2015), poor wages (Gatchel & Schultz, 2012) and logistics, namely distance to the workplace (Kaewanuchit & Sawangdee, 2016).

A study validated the link between job conditions and occupational stress was verified using a psychosocial occupational stress model among academics in Thai government universities. The model showed that teaching tasks had the most direct effect on stress among the academics. Another study investigated the causal relationship between occupation and stress among 200 male academic university employees (200 cases) in Thailand. The results of this study showed that job and environmental condition, which is one of the psychosocial dimensions of occupational health, has the most direct effect on stress ($p<0.05$) while variables such as family support and periods of duty are occupational stress at the low level (Kaewanuchit, 2015).

A cross-sectional survey on occupational stress using Thai-JCQ among

Thai Immigrant Employees in Bangkok using path diagram (Kaewanuchit, 2017a) was undertaken. It was found that working conditions have the most direct relationship on occupational stress while workload has an indirect relationship (Kaewanuchit, 2017a).

Another study focused on psychosocial issues faced by migrant workers and their families and findings found the former faced many family conflicts in raising their children, and looking after their ageing parents. This psychosocial stress problem is directly linked to poor mental health (Hettige, Ekanayake, Jayasundere, Rathnayake, & Figurado, 2012). A study on male Mexican migrant labour separated from their families for long periods showed they suffered from poor mental health issues, such as, fear, anxiety, and depression (Letiecq, Grzywacz, Gray, & Eudave, 2014). The same effects were noted among female migrant labourers in Sri Lanka, who were employed as maids, leaving behind family members to work in other countries such as, Europe and the American regions (Siriwardhana et al., 2015). Their ageing parents faced physical and mental health issues, while caring for their children left behind in Sri Lanka.

Meanwhile, a research in Thailand showed that job conditions were linked to mental health problems among Thai migrant labourers (Kaewanuchit & Sawangdee, 2016). However, the distance between home and workplace was negatively associated with mental health. This is because the workers regularly returned home (every one or two weeks or once a month) thus, reducing stress levels as they are in the company of their family. Therefore, it is important to examine job stress among Thai migrant labourers who are simultaneously looking after their ageing parents.

METHODS

Sample and Recruitment

This study was conducted in 2016 among selected Thai migrant workers, aged between 20 and 59, who were also looking after their ageing parents. The respondents were working in Bangkok and in Nonthaburi province which borders Bangkok. Stratified random sampling was used to select the respondents who consisted of Thai immigrant employees who were caring for their ageing parents (300 cases). The researchers invited the same population who fulfilled the following criteria: self-identified as Thai migrant workers who looked after their ageing parents and who worked in Nonthaburi province and Bangkok. An exclusion criterion was Thai migrant workers who worked and lived in other provinces. The sample size was calculated using the M-plus guideline. It considered no less than 10-20 times the number of parameters for the path model $((p* (p+1)) / 2) \times (t \le (p* (p+1)) / 2))$. Thus, the sample size of 300 participants was enough to reduce proportional errors.

Research Instruments

Research instrument was a questionnaire which contained 76 closed items (three

parts): individual characteristic in first part (eight questions), working conditions while supporting ageing parents in second part (14 questions), and Thai Job Content Questionnaire (Thai-JCQ) in the final part (54 questions). The details below were analysed:

(1) Individual characteristics such as province of the workplace, sex, education, marital status, age, occupation, wages and distance.

(2) Working conditions, namely, whether they were exploited by their employer, job stress, poor work environmental condition, heavy workload, and difficult job assignments. Moreover, the perceived potential of an employer to affect the working conditions is a perception of employer control too. Items in the second part were answered using a 4-point Likert-type scale of "none" (coded as = 1), "less" (coded as = 2), "more" (coded as = 3), and "most" (coded as = 4). Cronbach's alpha coefficient of working conditions among Thai immigrants who cared for their aging parents was 0.80. There were also eight applied questions namely (i) travels undertaken to take care of aging parents, (ii) care for them, time spent on caring for them, (iii) their direct responsibility in caring for their parents, (iv) time spent on caring for their parents, (v) distance between their workplace and their home (far distance) in order to support their ageing parents, (vi) self-care by their ageing parents, (vii) time off from

their jobs to meet physicians to discuss health of their parents, and (viii) how supporting their ageing parents affect their job performance. Cronbach's alpha coefficient was 0.75.

(3) Job stress was measured using 54-items version of the Thai-JCQ (Phakthongsuk, 2009) and items were modified based on the Demand-Control-Support Model (Karasek, 1979). There were six dimensions: job control, psychological job demands, physical job, job security, social support, and hazard at work. 51 of the items in the scale used a 4-point Likert-type of scale of "strongly disagree" (coded as = 1) through to "strongly agree" (coded as = 4), except for items 32-34. For item 32 (Do you work continually throughout the year?), the answers ranged from "No, I am sometimes an employee and sometimes I am laid off" (coded as = 1), "No, I am always being laid off" (coded as = 2), "No, I work sometimes" (coded as = 3), to "I work the whole year" (coded as = 4). For item 33 (Did you face unemployment in the past year?), the answers ranged from "I was an unemployed person/ laid off last year" (coded as = 1), "always" (coded as = 2), "sometimes" (coded as = 3), to "never" (coded as = 4). For item 34 (Will you become unemployed in the next two years resulting from action by your employer?), the answer ranged from "high" (coded as = 1), "sometimes" (coded as = 2), "seldom" (coded as = 3), to "none" (coded as = 4). The total Thai-

JCQ test was calculated by summing the items (α = 0.84). An interpretation of the total score of Thai JCQ test is < 60 scores (low stress = coded as 1), 60 -80 scores (medium stress = coded as 2), and > 80 scores (high stress = coded as 3).

Data accuracy, content and construct were validated by five professors. Item Objective Congruence Index (IOC) was 0.84. The value of Cronbach's alpha coefficient (reliability score) of the questionnaire was 0.82, using SPSS program version 20. The questionnaire consisted of multiple choice and single-choice items and had a high response rate of 80.86%.

Data Collection

Data was collected via self-administered questionnaire. Respondents took about 60 minutes to complete the questionnaire. All the completed questionnaires were placed in a sealed box.

Data Analysis

Data was analysed for percentages, minimum scores, maximum scores, mean, and standard deviation. The link between job stress and caring for ageing parents was verified by path analysis using version 5.2 of the M plus program (Hair, Black, Babin, & Anderson, 2009). Researchers considered p-values less than 0.01, and 0.05 as statistically significant. The path analysis was used to analyse r square and measure the fit of the path analysis. The rule for the test of the path model fit for a population of over 250 and variables < 12 is "chi square and degrees of freedom ≠ 0, P-value > 0.05, CFI (Comparative Fit Index) > 0.95, RMSEA (Root Mean Square Error of Approximation) < 0.08, and SRMR (Standardized Root-Mean-Square Residual) <0.05" (Hair et al., 2009).

RESULTS

General geographic data in this study (n= 300) are presented (Table 1). The model fit of the path analysis was accepted by M plus program (Table 2). In this path analysis, the addition of various factors explained variance in job stress by 33.6% (p-value < 0.01) (Table 2). This path analysis showed a mediating effect of causal factors, such as, Thai migrant workers caring for ageing parents on the relationship between working conditions, wages, distance, and job stress (Figure 1). Findings show distance, wages, and working conditions have a direct effect on job stress. Wages had the most direct relationship on job stress with a standardised regression weight of 0.400 (p-value < 0.01).

Table 1
General data (n= 300)

Data	Percentage	Minimum	Maximum	Mean	Standard deviation
Previous workplace	Nonthaburi 33.4%	-	-	-	-
	Bangkok 66.6%				
Gender	Females 73.3%	-	-	-	-
	Males 26.7%				
Education	Primary school 8%	-	-	-	-
	Secondary school 40.4%				
	Bachelor degree 50.6%				
	Master degree 1%				
Marital status	Single 66.7%	-	-	-	-
	Widowed 30.3%				
	Married 3.0%				
Age	20-29 years old 10%	-	-	-	-
	30-39 years old 50%				
	40-49 years old 26.7%				
	50-59 years old 13.3%				
Occupation	Civil servants 10%	-	-	-	-
	Permanent employees 56.7%				
	Temporary employees 33.3%				
Wages (baht/ month)	$\leq$ 5,000 = 5.0%	Code as = 1 ($\leq$ 5,000 baht/ month)	Code as = 7 (30,001-35,000 baht/ month)	-	-
	5,001-10,000 = 10.5%				
	10,001-15,000 = 30.2%				
	15,001-20,000 = 33.3%				
	20,001-25,000 = 16.0%				
	25,001-30,000 = 3.0%				
	30,001-35,000 = 2.0%				
Distance (km)	1-30 = 1.0%	Code as = 1 (1-30 km)	Code as = 14 (391-420 km)	-	-
	31-60 = 6.4%				
	61-90 = 7.4%				
	91-120 = 28%				
	121-150 = 9.2%				
	151-180 = 19.5%				
	181-210 = 1.1%				
	211-240 = 2.0%				
	241-270 = 3.1%				
	271-300 = 13.3%				

Table 1 *(continue)*

Data	Percentage	Minimum	Maximum	Mean	Standard deviation
	301-330 = 3.2%				
	331-360 = 3.7%				
	361-390 = 1.1%				
	391-420 = 1.0%				
Working condition With rearing ageing parents	None = 10.5%	Code as = 1 (none)	Code as = 4 (most)	-	-
	Less = 25.5%				
	More = 34.0%				
	Most = 30.0%				
	None = 0.0%	Code as = 1 (none)	Code as = 4 (most)	-	-
	Less = 10.7%				
	More = 45.0%				
	Most = 34.0%				
Job stress	Low stress = 15.3%	Code as = 1 (low stress)	Code as = 3 (high stress)	88.7 scores	0.8
	Medium stress = 30. 0%				
	High stress = 54.7%				

Table 2
Overall Test of Model Fit for Path Model

Criteria	Value with looking after ageing parents
Chi-Square	0.384
Degrees of freedom	1
P-value	0.5354
CFI	1.000
TLI	1.020
RMSEA	0
SRMR	0.006
R-square (with looking after ageing parents)	0.277*
R-square (job stress)	0.336*
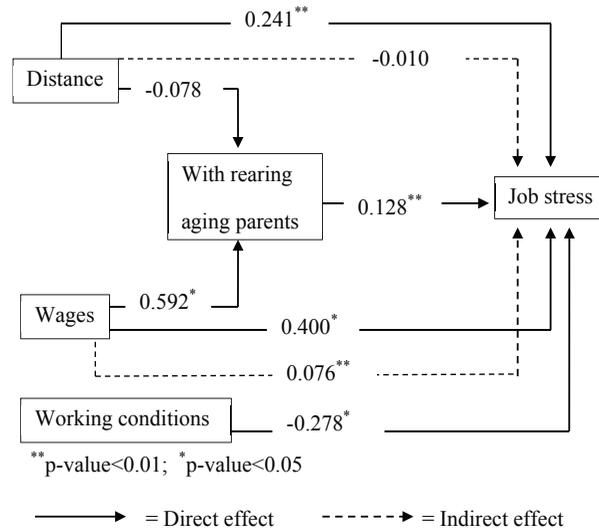
Figure 1. A Path Analysis of the relationship between job stress and caring for ageing parents in Thailand: A case study of Thai migrant workers

DISCUSSION

Previous studies found that migrant workers who looked after left-behind family members, especially, their ageing parents, spouse, and children experienced relatively high levels of stress (Perry-Jenkin & Wadsworth, 2013; Siriwardhana et al., 2015). It was also noted that wages are most consistently associated with job stress among Thai migrant workers. Nevertheless, there was no significant association of working conditions with job stress showing its negative direct effect on job stress (Figure 1). However, it could be considered that distance variable had the least direct effect on job stress in this group (Figure 1). Therefore, it can be surmised that working condition and distance variables had little effect or association with job stress compared with wages in this study. Earlier studies that looked at the relationship between job stress

and working conditions, wages, and mental health problems (such as stress), and health among migrant workers did not provide in-depth understanding of this link (Grzywacz, Quandt, & Arucry, 2008; Grzywacz et al., 2012; Kaewanuchit & Sawangdee, 2016; Swanberg, Clouser, & Westneat, 2012). The findings of this study showed the importance of causal factors, especially, path analysis for understanding and improving public health perspective based on the occupational health of vulnerable Thai migrant workers who looked after their ageing parents. The Thai culture clearly plays a role in defining the filial duties of a son or daughter. This is different from the western culture. In addition, a recent study (Siriwardhana et al, 2015) examined the health impact on family members left behind by migrant workers. This was done through in-depth interviews with affected parties. The findings indicated

a negative overall health effect (such as low moods, cheerlessness, and anxiety) among family members as a result of their parents taking up job offers abroad. The present study was different in that it examined the link between job stress and caring for ageing parents in the context of Thai migrant labourers.

The findings are consistent with those of previous studies (Rubalcava, Teruel, Thomas, & Godman, 2008) and the negative health effects of international migration on families in Indonesia (Hugo, 2002). In contrast, (Hsich et al., 2016; Kaewanuchit & Sawangdee, 2016b) found that working conditions had a direct positive effect on job stress (Kaewanuchit & Sawangdee, 2016b).

This study had several limitations. It examined the link between job stress and migrant labour caring for their ageing parents but it did not examine its impact on those left behind. This can be explored in future studies especially the impact on children and spouse in the context of Thai society. Another limitation is its methodology which only uses path analysis to understand the real causes of this phenomenon. Thus, this study could have benefited from in-depth interviews, and observation. What was interesting in the study is the fact working conditions have a negative direct effect on job stress contrasting earlier literature findings.

The strengths of this study are its contribution to knowledge on this topic especially in explaining the causal factors of job stress, and caring for ageing parents. Based on these findings, better mental health promotion and better health policy for migrant labour can be formulated by the government from the public health perspective. Future research should look at the link between working conditions, and job stress as this study has shown a negative direct effect on job stress. A qualitative method based on in-depth interviews and observation should be adopted.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study was part of a research entitled "The comparison of causal relationship of job stress between Thai immigrant employees with and without rearing their aging parents" which was accepted by the Human Ethics Committees (Social Sciences) from Mahidol University, Thailand. The human ethics code was COA. No. 2016/254.0507 and the Thai Clinical Trials Registry code was TCTR 20160712002 of Thailand.

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Kahoot! It: Gamification in Higher Education

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ABSTRACT

Play is a social-centred process, able to boost motivation and promote learning across all levels and ages. With the growing push for creativity in the classroom as well as the application of effective technology in teaching and learning, it can be a daunting task for educators to find fitting competitive or game-based learning platforms. Foremost, educators need to consider elements such as motivation and whether the platform is likely to foster and reinforce learning. In the present study, a cohort of undergraduates at a public university in Malaysia were exposed to the use of Kahoot!, a game-based learning platform, during their weekly lectures for one semester. The participants were students of English for the Media, which covers theoretical and practical dimensions. The latter dimension includes the learning and application of media language features and devices. Survey data (51 respondents) on the whole, indicated that the students found Kahoot! to be beneficial in terms of: 1) inducing motivation as well as engagement, and 2) fostering and reinforcing learning (for both theoretical and practical aspects). The 33-item questionnaire created by the researchers was also tested for reliability, with returned values indicating high internal consistency, thus making the instrument a reliable option for use in future studies. The findings of this study are of relevance to researchers, educators, course designers, and designers of game-based learning applications.

Keywords: Kahoot!, gamification, game-based learning, higher education, motivation, learning, knowledge reinforcement

INTRODUCTION

Technological advancement and its continuous progress has transformed how activities are performed on a daily basis. In the context of education, especially learning,

educators now have the opportunity to introduce and integrate play-based learning activities via technology in their instruction. The incorporation of play in learning has seen the emergence of a very unique concept of game-based learning. According to Zarzycka-Piskorz (2016), it is basically the use of game elements and game design techniques in non-game contexts. Game-based learning or gamification rests on the experiential nature of a game that allows learners the opportunity to be fully involved in the learning cycle. Game-based learning also garners learners' full attention and promotes knowledge retention due to its 'play nature'.

Platforms that are play-oriented and infused with learning elements are often designed with defined outcomes related to the teaching and learning aims of a particular lesson or series of lessons. Although games are play-oriented, the designing principles behind such games are based parallel to relatively specific teaching and learning context aims. The principles allow for more engagement and fun during the learning process. The engagement and fun factors of game-based learning have been found to boost learner motivation and sustain retention. Zarzycka-Piskorz (2016) highlighted that there exists strong evidence showing a relationship between game-playing and increased motivation as well as persistence.

Game-based learning tools such as Kahoot! supplement pedagogical practices

with new technological solutions. Kahoot! is a digital game-based student response system that allows teachers and learners in classroom settings to interact through competitive knowledge games using existing infrastructure. Wang, Zhu and Sætre (2016) pointed out that Kahoot! represents a new generation of student response systems that focuses on student motivation and engagement through gamification. This platform is apt for increasing motivation and engagement (which promotes learning), and for assessing students' understanding of a lesson. Furthermore, gamification develops learners' metacognitive abilities, promotes empathy, and builds teamwork skills.

Additionally, a recent study on Kahoot! by Wang and Lieberoth (2016), involving almost 600 students, reiterated the advantages of using the game-based platform for learning; specifically, they reported that variation in the use of audio and points affected concentration, engagement, enjoyment and motivation, and that Kahoot!'s audio and music features affected classroom dynamics in a significant and positive manner.

In short, Kahoot! purportedly offers a host of benefits and allows educators to be creative and students to be motivated, intrinsically and extrinsically. Game-based learning provides a thrill from the ordinary, a thrill which is absent from traditional instruction and everyday life. Tools like Kahoot! can make students enjoy and continue doing tasks that they

normally would not. In her commentary on gamification, McGonigal (2011, p. 124) quite aptly stated the following:

> The real world just doesn't offer up as easily the carefully designed pleasures, the thrilling challenges, and the powerful social bonding afforded by virtual environments. Reality doesn't motivate us as effectively. Reality isn't engineered to maximize our potential. Reality wasn't designed … to make us happy. Reality, compared to games, is broken.

It is therefore viable to look into the impact of Kahoot! on the motivation and engagement of learners as well as its influence on their learning, not only at the school level but also within the context of higher education to gauge if the platform would prove to be useful for tertiary learners.

Problem Statement

It is said that "a motivated learner can't be stopped" (Prensky, 2003, p. 1). Unfortunately, much of the content that university learners today have to acquire, be it theoretical or practical, is hardly motivating. According to Prensky (2003), the words 'boring', 'dry' and 'technical' are often associated with the teaching and learning process in general. He even noted that "It is probably safe to say that today's teachers, trainers and educators are rarely as effective as they might be in the motivational department, and this often causes real problems in getting our otherwise highly-stimulated students to learn." (p. 1)

In essence, students do not experience effective learning when there is no motivation to do so, and it can be a daunting task for educators to find fitting methods that are highly engaging and likely to foster and reinforce learning. In this advanced and technology-saturated age, gamification is an emergent approach to tertiary-level instruction. Gamification promotes motivation and facilitates effective learning through the employment of game elements, mechanics and game-based thinking (Kapp, 2014), thus making it indispensable for the teaching and learning of content that students term as 'dry' and 'boring'. The problem, however, lies in the selection of suitable platforms that can truly engage our learners and help them learn.

Closer to home, results from a survey conducted among lecturers and students of Universiti Putra Malaysia demonstrate that both parties agree that the lecture method is the least favoured and is therefore not very effective (Ismail, Elias, Mohd, Perumal, & Muthusamy, 2010).

Similarly, Yap (2016) in her paper on transforming conventional teaching classrooms into learner-centred, multimedia-mediated classrooms, pointed out that many lecturers are still using conventional teaching and that in such classrooms, "while the lecturer is explaining and writing on the board, students will be copying the same thing onto their notes, some day-dreaming and some sleeping." (p. 106).

Thang et al. (2016), in their study involving four different Malaysian public universities, highlighted that Malaysian students prefer using technology for social networking rather than for academic purposes. They noted, however, that the students do have a favourable view towards the adoption of more technology into the classroom but tend not to invest time and energy in it. The researchers suggested a possible explanation for this, that this phenomenon could be attributed to the manner in which technology is used in the classroom. This implies that while technology is abundant, the real challenge rests in educators selecting the *correct* technological platforms for use in their classrooms (that is, gaming platforms that can effectively motivate students to pay attention and learn, as well as encourage sustained learning within the Malaysian context).

This is in tandem with Yunus et al.'s (2012) position that "It is now a challenge for educators to be able to choose the right game, and to create an effective learning environment suited for our Malaysian setting ..." (p. 360). The researchers suggested that educators in Malaysia work to manipulate gaming aspects for educational purposes, and take advantage of the entertaining and addictive qualities that are generally inherent in gaming tools.

In addition, despite a plethora of studies on learning and gamification, there is an unfortunate paucity with regard to such studies within the Malaysian context specifically in relation to the use of game-based learning in higher education, thus making the present study both timely and significant.

Research Objectives

The present study focuses on examining the suitability of Kahoot!, a game-based learning platform, for use in higher education within the Malaysian context. Specifically, the study looks at the effectiveness of Kahoot! in terms of its ability to:

1) induce intrinsic and extrinsic motivation
2) foster and reinforce learning (theoretical and practical aspects)

In addition, the study is a platform to test the reliability of the 33-item questionnaire created by the researchers.

Research Questions

The present study is guided by the following research questions:

RQ1: Does the use of Kahoot! during lectures induce intrinsic motivation among learners?

RQ2: Does the use of Kahoot! during lectures induce extrinsic motivation among learners?

RQ3: Does the use of Kahoot! during lectures help foster learning?

RQ4: Does the use of Kahoot! during lectures help reinforce learning?

Research Significance

This findings contribute to the emerging field of game-based learning, and offer direction in terms of selecting suitable gamification platforms for use in the Malaysian higher education among adult learners. The findings also provide direction with regards to educational policy-planning and are on the whole, of relevance to educators, learners, and course designers. Additionally, the questionnaire designed by the researchers (with all constructs tested for reliability) is also a contribution to the field, and is of significance to scholars engaged in game-based learning research.

LITERATURE REVIEW

Gamification

The growth of personal computing and the Internet has brought about gaming diversity in the field of education. New opportunities for play to foster learning are now widely available, and one aspect of play, that it influences learning , cannot be denied. Piaget (1962) asserted that play is a crucial element in one's cognitive development from birth through to adulthood. More recently, Piaget's theory was further supported by Fromberg and Gullo (1992). According to them, language development, social competence, creativity, imagination, and thinking skills are fostered and enhanced through play. Concurrently, Frost (1992) also stressed that "play is the chief vehicle for the development of imagination and intelligence, language, social skills, and perceptual-motor abilities in infants and young children" (p. 48). In relation to Piaget's theory, Vandenberg (1986), utilising Vygotsky's theory, pointed out that "play does not only reflect, it also creates thought" (p. 21).

In the context of education, the penetration of games into learning activities, also widely known as gamification, refers to the use of pedagogical systems that are developed with gaming designs but implemented within non-game contexts, including education (Deterding, Dixon, Khaled, & Nacke, 2011). The advent of computing and the Internet has allowed videos and computer games to be used in classroom activities for the enhancement of learning processes. Of late, Internet-accessible digital tools have made gaming a mobile learning tool that can accommodate many participants in a single game, via a single platform. Thus, this does not only work towards enhancing learning but also, practically, makes the teaching and learning process much more efficient and contemporary.

Kahoot!: An Introduction

The use of technology has been proven to foster learning and reinforce learning. The fostering and reinforcement of learning through the use of computers, smartphones and tablets have improved learners' engagement and active participation in classrooms. The use technology is also undoubtedly a great assistance to teachers in terms of helping to increase motivation as well as increase the level of student participation in class, and in terms of

evaluating students' overall comprehension and development. In addition, learners also get to enjoy the opportunity to engage themselves in their learning and monitor their own progress and understanding (Koile & Singer, 2006).

Kahoot! is a unique game concept, the result of the Lecture Quiz Research Project initiated in 2006 at the Norwegian University of Science and Technology (NTNU). It is a free game-based learning platform that aims to make learning fun across all subjects in any language, and can be used with many types of digital devices. Kahoot! can also be programmed to suit learners of all ages. The platform enables teacher-learner interaction in classroom settings of various sizes via competitive knowledge games using existing infrastructure (which should include good Internet connection). The embedded graphical interfaces and audio elements present a gaming experience that can potentially promote motivation and learning among students, including adult ones.

Kahoot!: Gamification for Student Motivation and Learning

Zarzycka-Piskorz (2016) underscored that gamified education builds upon motivation, especially intrinsic motivation that encourages an individual's engagement. Game-based learning approaches increase learners' interest in the subject matter because they enjoy (or experience pleasure) as they learn, and thus are more engaged and focused in the subject. This eventually fosters learning and also results in sustainable learning. According to Suzanne (2013), gamification is sustainable or is enhanced based on the desire of an individual to achieve the expected outcome. However, this desire is conditional to the individual's sense of excitement. In essence, games in any form have the potential to increase motivation in the classroom through engagement. Zarzycka-Piskorz (2016) further described Kahoot! as an online game that promotes both cooperation and autonomy in the classroom.

Kahoot! as a game-based student response system, can be aligned to Thomas Malone's theory of intrinsically motivating instructions (Malone, 1980). This theory indicate three categories that make learning fun: 1) challenge (goals with uncertain outcomes), 2) fantasy (captivation through intrinsic or extrinsic fantasy), and 3) curiosity (sensor curiosity through graphics and audio, and cognitive curiosity). As the theory is contextualised within the classroom learning setting, the second category, fantasy, is transformed into a game show with the teacher and students playing the role of game host and competitors respectively. The initial category, challenge, involves the students being challenged to answer questions and compete against other players. The final category, curiosity, is displayed via graphics and audio and getting the students to solve cognitive puzzles. The competitive nature of play among the students in getting the correct answers compensates for the lack of variety during game play (should there be any).

Several researchers have studied the effects of educational games with regards to learning outcomes and motivation levels. Papastergiou's (2009) study's respondents indicated that the game-based learning approach created more engaging, effective and active learning. They also indicated that they enjoyed a more relaxed learning environment. A study by Anderson and Barnett (2011) on pre-service teachers' understanding of electromagnetic concepts using a game called 'Supercharged!' compared to students who conducted a more traditional inquiry of the same concepts found that the group that used video games outperformed the group that did not in terms of learning outcomes. However, there are also contrasting studies. For instance, Squire (2005) found that introducing games in the classroom does not necessarily produce positive results and can instead result in complaining students and a lack of motivation.

According to Dichev and Dicheva (2017), as games engender motivation and engagement, the proposal to gamify learning is enticing. In relation to this position, research has indicated that motivation is one of the more crucial predictors of academic achievements (Linehan, Kirman, Lawson, & Chan, 2011) as it is linked to learning-related concepts such as engagement, effort, goals, focus of attention, self-efficacy, confidence, achievement, and interest. Therefore, gamification's benefit in terms of fostering and reinforcing learning is multifold. As highlighted by Caponetto, Earp and Ott (2014), the benefits of gamification

augment learning in a variety of contexts and subject areas, and promote participatory approaches, collaborations, self-guided study, efficient completion of assignments, and make assessments more effective and easier to conduct. The integration of exploratory approaches into learning also facilitates student creativity and retention.

With regards to reinforcing learning, Bonde et al.'s (2014) study on the effects of combining gamification elements with simulations to improve the motivation and learning effectiveness of biotechnology students showed that a gamified laboratory simulation can increase motivation levels and learning outcomes when compared with traditional teaching. Furthermore, in higher education, games such as Kahoot! are suitable for various instructional practices such as lectures, tutorials, assignments, projects, lab activities, class exercises and discussions, as presented by Dichev and Dicheva (2017) in their work on gamifying education.

How does Kahoot! work?

Learning games such as Kahoot! are channels to evaluate whether learning objectives have been achieved. Therefore, game-based learning activities such as quizzes serve the purpose of reviewing content based on information taught. Prensky (2005) emphasised that learning games can serve multiple functions such as the teaching of various theories, skills and behaviours, as well as languages, creativity and communication.

Additionally, research by Zarzycka-Piskorz (2016) indicated that winning a game in learning shapes an environment based on the needs of the students and to a certain extent, the requirements of a course. In this context, multiple objectives can be targeted at and eventually achieved, for example, introducing, revising and consolidating theoretical as well as practical knowledge or content.

Kahoot! (https://getkahoot.com) is a free platform which provides teachers the opportunity to: 1) create their own quizzes and surveys, or 2) use existing quizzes and surveys made accessible for public use. Scores are displayed at the end of each game and teachers are able to save the information in a digital document. As for the learners (players), they are not required to register for a Kahoot! account and will instead be provided with a game PIN prior to joining a specific game at https://kahoot.it/#/ as directed by their teacher (game host).

A learning classroom also functions as a game show, where the teacher's role is that of a game show host and the students, the players or competitors. Without neglecting the learning elements, Gee (2003) indicated that well-designed video games are learning machines that are able to increase student motivation and engagement. The strength of these games lies in having learning occur naturally without the students realising that learning is actually taking place.

Wang (2011) noted that games can mainly be integrated in education in three ways. In the context of the present study, they were included as an integrated part of traditional classroom lectures over the course of one semester to improve motivation and learning, in line with past studies by Carver, Howard, and Lane (1999), Carnevale (2005), Wang, Øfsdahl, and Mørch-Storstein (2007), Wang, Øfsdahl, and Mørch-Storstein (2008) and Wu, Wang, Børresen, and Tidemann (2011).

Related Research

A research project was conducted at the Norwegian University of Science and Technology (NTNU) by Wang et al. (2016) to investigate the effects of a traditional non-gamified response system (Clickers), a game-based response system (Kahoot!) and paper-form formative assessment for a quiz in lectures. The results were significantly inclined towards the use of Kahoot!. Students were found to be more motivated by Kahoot! as compared to Clickers and the paper-form quiz. The students' responses also indicated a higher level of satisfaction and engagement. However, a positive effect on learning outcomes was not evident as no significant differences were found.

In a K-12 study, games were also found to improve motivation, classroom dynamics, and academic achievement (Rosas et al., 2013). Sharples (2000) asserted that game-based learning has a similar effect in higher education. This was evident in Tüysüz's (2009) study which demonstrated that using a game-based learning approach can

result in better achievement in chemistry as compared to traditional learning methods. Improved learning outcomes were also detected in studies by Miller, Schweingruber, Oliver, Janice and Smith (2002), and Liao, Chen, Cheng, Chent and Chan (2011). These findings are in line with past studies that highlight the importance of games in learning.

On the whole, when educators plan to integrate gamification into learning, it is vital that they realise the importance of motivation and thus, refrain from merely incorporating the gaming element into their lectures or lessons superficially. Their efforts should take into account motivation, (intrinsic as well as extrinsic), as the driving factor behind students' engagement and interest. In other words, when gamification is intended as part of the teaching and learning process, it is crucial to ensure that one's students will actually favour the game and that the game can actually sustain their interest for a considerable period of time.

Gamification in higher education brings in the fun element for students involved in academic programmes. Tools such as Kahoot! display good potential for application in teaching and learning at the tertiary level as it can potentially induce motivation as well as engagement, and promote learning and knowledge reinforcement. It is possible that educational transformation with the use of tools like Kahoot! may eventually make methods like rote-learning entirely obsolete.

METHODS

The present study implemented the survey approach, and reports results using a descriptive design based on quantitative and qualitative data. The researchers designed and utilised a comprehensive questionnaire comprising close-ended (five-point Likert scale) and open-ended items. According to Nelson (2008), in her work on survey research methods, such measures in a survey instrument enable researchers to investigate both quantitative and qualitative empirical premises.

However, the subjective nature of survey measures can present a problem – reliability. The researchers therefore, sought to remedy this problem by conducting a reliability analysis. The questionnaire consists of 33 items (four for demographic data) measuring different constructs, as reflected in the research questions presented earlier. The reliability analysis was conducted using the SAS 9.4 software platform to measure the internal consistency of the instrument as a whole.

The study was conducted in Universiti Sains Malaysia and purposive procedures were adhered to, taking into account the researchers' knowledge of the population of interest as well as the aims of the study.

Undergraduates of English for the Media, a four-unit course which covers theoretical and practical dimensions, were invited to participate in the study and access to the online questionnaire was via a Google Forms key. The portal remained accessible for two weeks. There were 51 out of 54

possible participants of various ethnicities who completed the questionnaire after being exposed to the use of Kahoot! in their weekly lectures for one semester (14 weeks). Each Kahoot! session was conducted post-lecture, and comprised one interactive multiple-choice quiz with approximately 10 to 14 items or questions based solely on the day's lecture. Each Kahoot! session also lasted no more than 15 minutes to prevent the possibility of a wear-out effect.

RESULTS

Table 1
Result of reliability analysis

Construct Measured	Cronbach's Alpha (α)	Level of Internal Consistency (Reliability)
Kahoot! Questionnaire	.97	Excellent

As shown in Table 1, the reliability of the questionnaire as a whole is excellent, with α = .97. Interpretation of the obtained value is based on the commonly accepted rule of thumb for interpreting Cronbach's alpha (α) readings (George & Mallery, 2003).

Table 2
Respondents' Age Range

Age (years)	Number of Respondents (n)	Percentage (%)
21	4	7.8
22	18	35.3
23	23	45.1
24	5	9.8
27	1	2
	51	100

The respondents selected for this study comprised a mixed age group as shown in Table 2. The majority (45.1%) were 23 years old while the second highest range were respondents aged 22 years old. A total of 5 respondents were 24 years old, 4 were 21 years old and 1 was 27 years old.

Table 3
Respondents' gender, race and hometown

Category	Group	Number of respondents (n)	Percentage (%)
Gender	Males	11	21.6
	Females	40	78.4
		51	100
Race	Malay	28	54.9
	Chinese	20	39.2
	Indians	2	3.9
	Foreigners	1	2
		51	100
Hometown	Urban	23	45.1
	Semi-urban	22	43.1
	Rural	6	11.8
		51	100

Table 3 highlights the respondents' gender, race and hometown. 78.4% (*n*=40) of the respondents were females and 21.6% (*n*=11) were males. This table also classifies the respondents' race breakdown. The majority (*n*=28) were Malays, followed by Chinese (*n*=20), two Indians, and one foreign respondent. The last section of Table 3 illustrates the respondents' background in terms of their hometown; there appears to be a near equal proportion of respondents originating from the urban (*n*=23) and semi-urban (*n*=22) areas. Only six respondents were from rural areas.

Table 4
Respondents' prior exposure to Kahoot!

Item	True (%)	False (%)
I have never played Kahoot! before this year.	78.4	21.6

A significant number (78.4%) of the respondents conveyed that they had never played Kahoot! or experienced such exposure prior to taking the English for the Media course. About 21.6% of the respondents indicated their prior exposure to Kahoot!.

Table 5
Respondents' attitudes towards Kahoot!

Item	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)
1. *I look forward to playing Kahoot!*	2	0	5.9	27.5	64.7
2. *I find Kahoot! interesting.*	2	0	3.9	11.8	82.4
3. *I find Kahoot! fun.*	2	0	3.9	13.7	80.4
4. *I get annoyed when I can't connect to Kahoot!*	5.9	3.9	21.6	25.5	43.1
5. *I feel excited when playing Kahoot!*	2	2	3.9	31.4	60.8
6. *I enjoy playing Kahoot!*	0	2	5.9	27.5	64.7
7. *I feel positive when playing Kahoot!*	2	5.9	2	35.3	54.9
8. *I focus on the items or questions in each Kahoot! session.*	2	0	3.9	35.3	58.8
9. *I respond to each item or question in each Kahoot! session.*	2	2	3.9	29.4	62.7
10. *I respond as quickly as possible to each item or question in each Kahoot! session.*	0	2	2	35.3	60.8
11. *I respond as accurately as possible to each item or question in each Kahoot! session.*	0	0	15.7	41.2	43.1
12. *I like the competitiveness in our Kahoot! sessions.*	0	2	11.8	31.4	54.9
13. *I am motivated by the prospect of winning in these Kahoot! sessions.*	2	5.9	11.8	29.4	51
14. *I pay more attention during lectures because I hope to win in the Kahoot! sessions.*	3.9	9.8	13.7	37.3	35.3
15. *I am eager to learn via Kahoot!*	2	0	13.7	37.3	47.1
16. *There is value in using Kahoot! for teaching and learning purposes.*	0	2	5.9	27.5	64.7
17. *Kahoot! should be used in higher education.*	0	7.8	7.8	21.6	62.7

1: Strongly Disagree; 2: Disagree; 3: Slightly Agree; 4: Agree; 5: Strongly Agree

Table 5 reflects the respondents' attitudes towards Kahoot!. It is noteworthy that 100% of the students expressed their positive regard for the effectiveness of Kahoot! in the academic context. An insignificant proportion of 2% strongly disagreed to nearly all the items listed in Table 5. An interesting trend of 98% of similar responses was recorded for nine items which supplies evidence with regard to the popularity of Kahoot! among the respondents – students looking forward to the sessions; finding it interesting, fun and enjoyable; responding quickly to and focusing on each item or question eagerly; being fond of the competitiveness in each Kahoot! session; preferring to learn via Kahoot!; recognising the value of using Kahoot! for teaching and learning purposes, and in higher education. About 96% of the respondents also perceived Kahoot! as exciting and were thus motivated to make the effort to answer every item or question during each Kahoot! session. A total of 92% acknowledged their positivity towards playing Kahoot!, and were especially motivated by the prospect of winning.

Table 6
Respondents' perceptions of Kahoot! for learning and knowledge reinforcement

Item		1 (%)	2 (%)	3 (%)	4 (%)	5 (%)
1.	*Our Kahoot! sessions help me learn the gist of: A) Theoretical frameworks that I might have missed during lectures.*	0	2	5.9	29.4	62.7
2.	*Our Kahoot! sessions help me learn the gist of: B) Analysis models that I might have missed during lectures.*	0	2	9.8	37.3	51
3.	*Our Kahoot! sessions help me learn the gist of: C) Media concepts that I might have missed during lectures.*	2	0	7.8	35.3	54.9
4.	*Our Kahoot! sessions help me learn the gist of: D) Media language features or devices that I might have missed during lectures.*	2	0	5.9	41.2	51
5.	*Our Kahoot! sessions help me learn the gist of: E) Media writing techniques that I might have missed during lectures.*	0	2	7.8	37.3	52.9
6.	*Our Kahoot! sessions help reinforce (consolidate) my learning of: A) Theoretical frameworks.*	0	2	7.8	47.1	43.1
7.	*Our Kahoot! sessions help reinforce (consolidate) my learning of: B) Analysis models.*	0	2	9.8	43.1	45.1
8.	*Our Kahoot! sessions help reinforce (consolidate) my learning of: C) Media concepts.*	0	2	9.8	47.1	41.2
9.	*Our Kahoot! sessions help reinforce (consolidate) my learning of: D) Media language features or devices.*	0	2	7.8	45.1	45.1
10.	*Our Kahoot! sessions help reinforce (consolidate) my learning of: E) Media writing techniques.*	0	5.9	9.8	47.1	37.3

1: Strongly Disagree; 2: Disagree; 3: Slightly Agree; 4: Agree; 5: Strongly Agree

According to Table 6, the respondents' perceptions of Kahoot! account for their learning and knowledge reinforcement. An interesting trend was again captured for the first five items with 98% of the students communicating that Kahoot! did help foster their learning. They indicated that the Kahoot! sessions assisted them in learning the gist of information that they had missed during lectures in terms of the following aspects – theoretical frameworks, analysis models, media concepts, media language features or devices, and media writing techniques.

A similar trend of 98% agreement was found for items 6 to 9 in Table 6, in relation to the students' positive affirmation of the Kahoot! sessions helping to reinforce their learning with regards to theoretical frameworks, analysis models, media concepts, and media language features or devices. A significant portion (94.1%) of the students affirmed that the Kahoot! sessions helped reinforce their knowledge of media writing techniques.

The final item of the questionnaire is open-ended, allowing the researchers to garner a diverse array of qualitative data. The final item is as follows: "Please provide a comment about your experience with Kahoot! in this course."

The students reiterated that they found Kahoot! to be intrinsically motivating: "One of a kind learning experience"; "fun learning experience"; "highly effective"; "increases interest in the course"; "nice and engaging experience"; "Damn fun"; "enjoyable"; "Awesome!". The following

responses also demonstrate the inducement of extrinsic motivation in the students: "enjoy the competitiveness"; "really look forward to Kahoot!"; "Kahoot! makes me feel more motivated and focus"; "write more comprehensive notes based on the lectures in order to answer Kahoot! at the end"; "Subconsciously, it feels like a flash revision that makes me remember the lecture more, winning or losing the quiz".

Students also highlighted that the use of Kahoot! during lectures help foster and reinforce learning: "I am always enjoying the learning process by playing 'Kahoot!' as it gives me the chance to recall and to retain what I've learned during lectures"; "very interesting way to revise after the lecture"; "good recap session"; "It is useful as it refreshes my memory of whatever I learned in class and tells me where are the main points of the lecture to be focused on"; "Kahoot helps me recall all info that was learned during class"; "reinforce students' memory of the particular topic, very helpful for learning and also recapping the lecture and really helpful method to learn and also revise".

Nevertheless, the students did highlight the limitations of using Kahoot!: "The limitation of playing Kahoot! is only the internet. Means that if the internet is slow then it will be difficult for me to click on the answer. Hence, I lost the game"; "great app, but the wifi connection sometimes sucks and we can't connect into the app"; "just the internet connection affects my mood to play Kahoot"; "it would be better if Kahoot has more features to make it a little more

challenging (for example, able to pick more than one answer)"; "It would be better if we can get faster wifi connection"; "just need better internet connection and we're good".

DISCUSSION

This study is grounded in the theory of intrinsically motivating instructions (Malone, 1980). The first element (challenge) of Malone's theory is reflected in terms of the students being challenged to engage in the Kahoot! sessions despite certain limitations (such as no prior exposure to Kahoot!, Internet connectivity issues) and the fact that the outcome of each session was uncertain. The second element (fantasy) was met through the students' evident captivation with Kahoot!, as demonstrated by their motivation and engagement towards Kahoot! in the findings. Lastly, the element of curiosity was met through their interaction with Kahoot!'s graphics and embedded audio features; this third element was also realised when the students experienced learning and knowledge reinforcement via Kahoot! (see Table 6).

The purpose of this study was to examine the effectiveness of Kahoot! in terms of its ability to induce intrinsic and extrinsic motivation while determining if this form of gamification is able to foster and reinforce learning. The results of the present study provide evidence of Kahoot! as a gamification tool that is able to induce intrinsic and extrinsic motivation among tertiary students. These positive findings are in line with Wang et al.'s (2016) study, which concluded that Kahoot! advocates

a new style of learning that promotes motivation and facilitates engagement. More importantly, Zarzyeka-Piskorz (2016) postulated that when learning incorporates any form of gamification, the learning process becomes more engaging as intrinsic motivation is induced. Indeed, 98% of the present study's students indicated their high level of intrinsic motivation when engaging with Kahoot!, affirming it as a tool that has enhanced their learning experience in the English for the Media course. In fact, one student pointed out that "Most lectures especially in theoretical-based courses will have less interactive lecture sessions, where students only read and write notes. Seldom are the lecture sessions interactive, due to attitudes from both lecturers and students. I find that this type of lecture tend to make me lose focus during the lecture. But Kahoot! makes me feel more motivated and focus … Thank you Dr. for using Kahoot! Love it!".

Interestingly, the results also showcased the high level of extrinsic motivation induced by Kahoot!. This aspect is reflected in terms of the students indicating high levels of competitiveness during their Kahoot! sessions, their motivation at the prospect of winning, and their eagerness to learn via this platform. This strongly suggests that Kahoot! should be integrated into the teaching and learning cycles in higher education courses. These findings are testimonies to Papastergiou's (2009) research in relation to the effectiveness of games in encouraging better learning outcomes and better motivation at grasping academic concepts, which further concurs

with Linehan et al. (2011) who highlighted gamification as a significant predictor of students' academic success.

The results of this study support the notion that Kahoot! is effective in terms of its ability to foster and reinforce learning, especially with regards to theoretical frameworks, analysis models, media concepts, media language features or devices, and media writing techniques. The present findings are in tandem with past studies (Rosas et al., 2003; Tüysüz, 2009) that emphasise the effectiveness of Kahoot! in the academic context. The key findings of this study explicate the students' intrinsic and extrinsic motivation in using Kahoot! as a platform to foster and reinforce their learning, with most of them affirming that the Kahoot! sessions had not only helped them learn whatever they might have missed during the lectures, but that the sessions had also helped them significantly in terms of knowledge reinforcement and retention.

However, the students did point out the limitations of using Kahoot!, particularly the issue of wi-fi connection. The lack of a stable Internet connection had apparently hindered their responses to the quiz items. The question therefore arises as to whether they were negatively affected by this, but the key findings downplay this limitation as almost all the students indicated that they were motivated and engaged, and experienced learning as well as knowledge consolidation through the Kahoot! sessions conducted. In fact, most of the students also resorted to the use of their own Internet data plans when they experienced wi-fi connection issues.

CONCLUSION

Although the findings of this study cannot be generalised to the entire population of tertiary students in Malaysia, partly due to the diverse nature of different tertiary courses, the key findings offer significant insights into the effectiveness of using Kahoot! in higher education, among adult learners. It is, however, recommended that future studies employ samples from other academic courses and also from other universities. To have a more thorough understanding of the benefits of using Kahoot!, it is further recommended that future research in this area be more qualitative. While such recommendations are made, it is incumbent on stakeholders to realise that educators, students and administrators all play equally important roles in the creation of teaching and learning environments that are conducive, contemporary and relevant to today's generation of learners.

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SOCIAL SCIENCES & HUMANITIES

Short Communication

Tourists with Dementia – A Unique Challenge for the Tourism Industry

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ABSTRACT

Currently, due to the increase in life expectancies and the number of aging populations worldwide, there is a rise of aging illnesses, out of which the most common is dementia. At present, there are both pharmacological and non-pharmacological approaches which attempt to help the affected people in their fight against dementia. One of these approaches seems to be travelling. Therefore, the purpose of this article is to explore the current literature which deals with accessible tourism with special focus on tourists with dementia and their caregivers. In addition, the author attempts to detect difficulties tourists with dementia and their caregivers might face during their travels.

Keywords: Ageing, barriers, dementia, needs, tourism, travel

INTRODUCTION

Due to the increase in life expectancies and the number of aging populations worldwide, there is a rise of aging illnesses, out of which the most common is dementia. At present, more than 44.3 million people suffer from dementia and by 2050, this number is predicted to triple (Prince, Guerchet, & Prina, 2013). As Pohanka (2011) states, dementia is one of the main causes of incapability and dependency of elderly people. The most common symptoms of dementia are: a considerable loss of memory, orientation problems, impaired communication skills, depression, behavioral changes and confusion (Klimova & Kuca, 2016). The most frequent type of dementia is Alzheimer's disease which covers 70% of all dementia cases.

Currently, there are both pharmacological and non-pharmacological approaches which attempt to help the affected people in their fight against dementia (Klimova & Kuca, 2015). One of these approaches seems to be tourism. As Roberts (2011) states, tourism can positively contribute to the improvement of the well-being and strengthen relationship between the patient with dementia and his/her caregiver (usually a family member). In fact, many patients with dementia diagnosis enjoy travelling for several years after they have been diagnosed (Page, Innes, & Cutler, 2014). Travelling, with respect to tourism can contribute to their social inclusion when interacting with others and improve mental well-being when having an intellectual stimulation (Innes, Page, & Cutler, 2015). In addition, it can keep them physically active and improve their mood as research studies indicate (Terri, Logsdon, & McCurry, 2008).

Therefore, the purpose of this article is to explore the current literature which deals with accessible tourism with special focus on tourists with dementia and their caregivers. Furthermore, the author of this article attempts to detect difficulties tourists with dementia and their caregivers might face during their travels. Based on the literature, the author also provides characteristics of a tourism product for senior travellers with dementia.

METHOD

The methods used for this article include literature review conducted in Web of Science, Scopus, Science Direct and Springer, and comparison and evaluation of findings from selected studies. The search was based on key words: accessible tourism, dementia tourism, tourists with dementia, and tourism for people with dementia in the period of 2010 till December 2016. In addition, findings from the relevant studies cited in the detected studies on the research topic were used. The author also used the information from 10 web pages which were relevant to the research topic, for example, Accessible Tourism (2016), Crampton, Dean and Eley (2012), or Department of Health (2012).

LITERATURE REVIEW

In 2009, Darcy and Dickson experts in accessible tourism, provided a comprehensible definition of accessible tourism. This concept enables people with access requirements such as cognitive impairments, to function independently and with equity through the delivery of universally designed tourism products, services and environments.

Dementia tourism or tourism for people with dementia is part of accessible tourism. However, there is still a lack of studies on this topic in comparison with general studies on accessible tourism (Accessible tourism, 2016). The reason is that most of the studies concentrate on mobility disability (Darcy, 2010; Israeli, 2002; Yau, McKercher, & Packer, 2004). The key researchers in the field of dementia tourism are researchers from Bourmouth University in England represented by Page, Innes, and Cutler and Canadian researchers, Dupuis and Genoe.

The concept of tourism for people with dementia was first introduced by Page et al. (2014) in their exploratory study as "Dementia-Friendly Tourism (DFT)." Their definition results from the concept of Dementia-Friendly Communities (Department of Health, 2012; Genoe & Dupuis, 2014). These are defined as an environment where people can access local services and facilities, which if extended to tourism will extend to the wider destination resource base (e.g., transport) and the wider destination infrastructure (e.g., leisure settings).

Page et al. (2014) in their study list the key issues in the area of tourism for people with dementia or DFT:

- a lack of reliable public transport patients or their caregivers who can no longer drive

- a lack of confidence with respect to access to suitable public toilets

- a lack of signage for public areas, such as toilets, restaurants or bars, used by people with dementia who can easily get lost

- a lack of specialist travel companies who can offer tailor-made holidays for people with dementia

- a lack of understanding of this disease among general public, including travel providers.

On the basis of the concept developed by Crawford, Jackson and Godbey (1991), Innes et al. (2015) in their study list three barriers for people with dementia which can hinder their travelling: intrapersonal, interpersonal and structural. The intrapersonal barrier is connected with the psychological aspects, that is, the fear of getting lost. The interpersonal constraint is connected with social aspects, that is, whether the person with dementia is able to get involved in travelling activities. The structural barrier then reflects the accessibility of destination or cost of travel insurance.

As Genoe and Dupuis (2014) claim, there is a need to physically and socially prepare communities to prepare and understand the needs of older travellers with dementia and their caregivers. Genoe (2010) in her study shows that in the present society people with dementia have stigma of being old, mentally ill and having dementia. They are accepted by society as incompetent individuals. However, Genoe claims that leisure activities such as travelling have a very positive impact on their life. She presents a resistance concept in which she states that leisure might be a potential space for resistance against the ageing process and especially the stigma of dementia. This approach should also enable these people to find ways to experience empowerment.

SPECIFICATIONS OF A TOURISM PRODUCT FOR PEOPLE WITH DEMENTIA

On the basis of the findings in research studies by Crampton et al. (2012), Cutler, Innes and Page (2016), or Innes et al. (2015), the following tourism product characteristics

relevant for a senior traveller with dementia can be deduced:

- it should include spatially safe locations, that is, the locations which are adequately equipped with signage

- it should comprise quieter places in which senior travellers with dementia can calmly enjoy their new experiences, but also find something reminding them of their past

- it should offer destinations which are easily accessible in respect of transportation and transitions

- it should also take into account the senior traveller's companion who in case of need, especially in the later stages of dementia, is usually her/his caregiver and can handle all difficulties

- it should be of high quality, as they value quality during their travel and are willing to spend more on it

- it should have medical facilities within an easy reach because it makes people with dementia and their caregivers more secure about their travel

- ideally, it should be a package travel, which senior travellers with dementia would definitely appreciate

- it should also aim at staff qualifications and their understanding of the needs of people with dementia, as well as the needs of their caregivers.

CONCLUSION AND RECOMMENDATIONS

The findings of this article indicate that although there is a gradual interest in the issue of DFT, research in this field is still in its infancy and much more work has to be done in this area. The best practices conducted in England and Canada can be an inspiration, besides other exploratory studies (Crampton et al., 2012; Cutler et al., 2016).

However, it is necessary to conduct more research in the field of DFT, especially in the form of case studies which would illustrate the best practices in this area. Furthermore, there is a need to establish guidelines for the development of DFT so that people with dementia and their caregivers could enjoy their holidays. Finally, businesses should get involved in the DFT policy, and the general public should become aware of the needs of the senior travellers with dementia (Page et al., 2014; Peterson, 2015).

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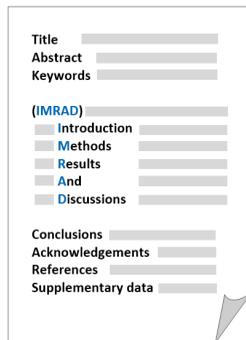
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