AN INVESTIGATION ON TEACHING AND LEARNING ACTIVITIES THAT SUIT DIFFERENT INTELLIGENCES IN AN ENGLISH CLASSROOM

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DECLARATION

I admit that this project report has been my very own piece of work except for the

citations and summaries, whereby each and every one of the sources has been properly

acknowledged.

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ABSTRACT

One of the measures taken by the Ministry of Education to help students in learning the English subject is by introducing Multiple Intelligences (MI) in all primary and secondary schools in February 2000.

Multiple Intelligences (MI) was introduced by Dr. Howard Gardner in 1983, which emphasizes on seven different intelligences that should be possessed by normal individuals. Dr. Howard proposed that people use at least seven relatively autonomous intellectual capacities; each with its own distinctive mode of thinking to approach problems and come out with solutions. These capacities include verbal- linguistic, musical-rhythmic, logical-mathematical, visual-spatial, bodily-kinesthetic, interpersonal and intrapersonal intelligences.

This research attempts to identify the dominant intelligence/s of MI among the participants and find out types of teaching-learning activities that would be able to enhance the participants' speaking and writing skills by relying on the MI framework. By understanding participants' dominant intelligence/s, the researcher hopes that this study will benefit educators as well as learners in creating meaningful teaching-learning environment in the English classrooms.

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CHAPTER ONE

INTRODUCTION

1.1   Background of the study

English Language is regarded as one of the problematic subjects for students in Malaysia, to understand, enjoy and fully acquire. Over the recent years, in a large number of classrooms, teachers still 'lecture' students and instruct them on what to do. Often the one and same method of teaching is applied to all students at the same time, and almost every day in most lessons. It is common to observe students reciting and committing to memorizing numbers, letters of alphabets and text with little or no understanding of what they are learning especially in the primary schools. The joy of learning is absent in many classrooms (Campbell, 1997).

Students have the capacities that can be tapped for optimal learning, of which many teachers are often unaware. A student could be wrongly labeled as not intelligent or smart simply because he or she is unable to perform a learning task in a way prescribed or expected by the teacher. Learning approaches based on scientific knowledge of the human body and how learning occurs can help to determine what works best for the individual child so that his or her needs may be met in the most effective manner (Gardner, 1999a).

Knowledge about the ways in which the human brain processes information and reacts to external stimuli is essential for teachers so that they can begin to understand and apply the relevant principles in the classroom situation, draw out the individual students' potential and ensure effective learning. Therefore, it is important for teachers as well as students to understand that intelligence is not a fixed attribute which a child is born with or without, but one that can be developed and enhanced at any stage of one's life. And, intelligence comes in many forms, not just one (Gardner, 1983).

Over the years, language teaching has seen dramatic changes. The era of memorizing dialogues and drill practices on discrete grammatical structures has been replaced by more communicative activities. The Ministry of Education, after seeing the downfall of English language results in the Lower Secondary School Examination (Penilaian Menengah Rendah – PMR) and the Primary School Test (Ujian Penilaian Sekolah Rendah – UPSR) in the previous years, has set up a special committee to discuss and find ways to improve students' mastery of English language. Therefore, since February 2000, all schools in Malaysia were instructed to apply Multiple Intelligences as one of the approaches in the teaching of English as a second language.

Eventually, this is one of the approaches suggested by the Ministry of Education and the State Education Department to overcome the problem in second language learning. The theory of Multiple Intelligences is a theory that outlines seven ways in which one can acquire knowledge including the learning of a second language. The Theory of Multiple Intelligences (MI) was introduced by Dr. Howard Gardner in 1983, which emphasizes on seven different intelligences that should be possessed by normal individuals. Based on Dr. Howard Gardner's 1983 book *Frames of Mind,* Multiple Intelligences theory proposes that people use at least seven relatively autonomous intellectual capacities-each with its own distinctive mode of thinking to approach problems and create products. These capacities include linguistic, musical, logical mathematical, spatial, bodily-kinesthetic, interpersonal and intrapersonal intelligences. Every normal individual possesses varying degrees of each of these intelligences but the ways in which intelligences combine and blend are as varied as the faces and the personalities of individuals.

1.2   Statement of the Problem

In learning a language, there are four basic skills that one has to acquire, they are listening, speaking, reading and writing. While listening and reading are considered receptive skills, speaking and writing are considered productive skills.

Thus, "communicative competence" can be interpreted as a person's ability to produce or use a language that makes sense – something that can be understood. Hence, to achieve communicative competence, one has to master, although not necessarily at equal levels, both productive skills, speaking and writing.

Considering the fact that students have been exposed to the language as early as at pre-school level, based on the researcher's experience and observation, it is surprising to know that many students are unable to converse and write in English well. This does not happen only to the primary and secondary school children, but also to graduates. They seem to have problems in acquiring the language.

One of the reasons is they do not know how to use the language (Curriculum Development Centre, 1988). They are not familiar with the context in which they should use it. This is due to the fact that most of the things they do and learn in the classroom are merely 'artificial'. The items of the language such as grammar, forms and functions are taught in isolation, but not in context. Therefore, they tend to memorize the language. However, when in real communication situations, they are unable to produce the language. It is agreed that language must be taught communicatively and it should be done through student-centered approach. However, in reality, this is not so. The teacher is still the dominant figure in the classroom. He is the one who tells the students what to learn and what to do. Furthermore, the ability to score good marks in examinations is what counts, not the ability to communicate in the language. In other words, examination is indeed given much (or rather too much) emphasis in the Malaysian education system today.

Eventually educators need to address students' different abilities and design strategies and materials according to the students' needs so that the learning process will become meaningful to them. Multiple Intelligences (MI) theory would be able to provide possible solution in dealing with students' abilities and needs due to the fact that Multiple Intelligences focuses on the learner. Furthermore, Multiple Intelligences instructions can also be used as an effective tool to create meaningful tasks and activities for the students in learning a second language.

1.3   Purpose of the Study

This research attempts to identify the dominant intelligence/s of MI among the participants and find out the types of teaching-learning activities which are suitable to the respective dominant intelligence of the participants. In addition, this research is also conducted to find out which teaching-learning activities would be able to enhance learners' speaking and writing skills.

Apparently there is limited number of academic writings in Malaysia on this particular area; therefore the need to refer to various research studies and writings done by foreign researchers is crucial.

Hence this study is carried out in conjunction with the introduction of Gardner's Multiple Intelligences in learning English language in all schools in Malaysia. Gardner's theory has been applied in the teaching of English language subject in all primary and secondary schools in Malaysia since 2000.

1.4   Objectives of the research
   i)   To find out the types of teaching and learning activities which are suitable to the respective dominant intelligence in speaking and writing.
   ii)   To find out learners' perception on the teaching-learning activities carried out.

1.5   Research Questions
   1. What type of teaching-learning activities is suitable to enhance learners' speaking skills with respect to their dominant intelligence?
   2. What type of teaching-learning activities is suitable to enhance learners' writing skills with respect to their dominant intelligence?
   3. What is the perception of learners on the teaching-learning activities carried out?

1.6   The significance of the study

The study is important in order to establish any influential relationships between Gardner's Theory and Second Language Learning. By identifying learners' dominant intelligences, educators would be able to recognize students' strengths and weaknesses in learning English language and therefore design activities which would be able to accommodate students' needs according to their abilities. Hence, by doing so, this will make the teaching-learning process becomes more meaningful to the learners as well as teachers towards learning the target language.

The researcher hopes that by determining learners' dominant intelligence in relation to Multiple Intelligences theory in the classroom, it is able to enhance learners' speaking and writing skills in the learning of English language in order to achieve the objectives of education thus improve the standard of English among them.

1.7   Limitation

There are some limitations to this study. Due to the time factor, the researcher selects thirty students only as the participants and chooses a rural secondary school in Batu Pahat due to the reason that the learners in the rural area do not have as much exposure in English as those in the town area. By conducting this research, the researcher would be able to provide learners additional benefit while learning English language as well as get better cooperation from the learners.

In learning a language, there are four basic skills that a learner needs to acquire; listening, speaking, reading and writing. However for this study, the researcher focuses only two basic skills which are the speaking and writing skills. The remain of the two skills, listening and reading will not be tested. In addition, the researcher has translated Sam Blackman's questionnaire into Bahasa Melayu in order to help learners understand the statements given.

1.8   Definition of terms

1.8.1 Multiple Intelligences

The theory of Multiple Intelligences is a theory that outlines seven ways in which one can acquire knowledge including the learning of a second language that should be possessed by normal individuals. The Multiple Intelligences Theory was introduced by Dr. Howard Gardner in 1983 based on his book *Frames of Mind.* Seven MI Attributes:

1. Verbal linguistic: strengths in stories, poems, plays.
2. Logical/mathematical: enjoy problem solving, puzzles.
3. Spatial: need to see in order to understand through visual aids, flash cards.
4. Musical: like songs, music.
5. Bodily/kinesthetic: learners learn best through body movements, games, role play cards, puzzle cards.
6. Interpersonal: pair work, group work.
7. Intrapersonal: personal feelings, values.

1.8.2 Teaching-learning

The transmission of knowledge from the teacher to the students whereby a teacher acts as the input provider and students absorb information provided by the teacher and perform various activities or tasks instructed by the teacher with the hope that learners would be able to understand the purpose of the activities or tasks given.

CHAPTER TWO

LITERATURE REVIEW

2.1   Background of Gardner's Theory of Intelligence

Nearly 20 years ago, Dr. Howard Gardner, found that his own research interests were leading him to a heightened concern with issues of human intelligence. This concern grew out of two disparate factors, one primarily theoretical and the other largely practical (Armstrong, 1993). As a result of his own studies of the development and breakdown of cognitive and symbol-using capacities, Gardner became convinced that the Piagetian view of intellect was flawed. Whereas Piaget had conceptualized all aspects of symbol use as part of a single 'semiotic function', empirical evidence was occurring that the human mind may be quite modular in design. That is, separate psychological processes appear to be involved in dealing with linguistics, numerical, pictorial, gestural and other kinds of symbolic systems (Gardner, 1983).

On a more practical level, Gardner was disturbed by the nearly exclusive stress in school on two forms of symbol use: linguistic symbolization and logical-mathematical symbolization (Armstrong, 1993).

Although these two forms are obviously important in a scholastic setting, other varieties of symbol use also figure prominently in human cognitive activity within and especially outside the school.

Moreover, the emphasis on linguistic and logical capacities was overwhelming in the construction of items on intelligence, aptitude and achievement tests. If different kinds of items were used or different kinds of assessment instruments devised, a quite different view of the human intellect might issue forth (Chapman, 1993).

These and other factors led Gardner to a conceptualization of human intellect that was more capacious. This took into account a wide variety of human cognitive capacities, entailed many kinds of symbol systems and incorporated as well as the skills valued in a variety of cultural and historical settings. Realizing that he was stretching the word intelligence beyond its customary application in educational psychology, Gardner proposed the existence of a number of relatively autonomous human intelligences (Lazaer, 1999). He defined intelligence as the capacity to solve problems or to fashion products that are valued in one or more cultural settings and detailed a set of criteria for what counts as a human intelligence (Gardner, 1983).

Gardner's definition and his criteria deviated significantly from established practices in the filed of intelligence. Most definitions of intelligence focus on the capacities that are important for success in school (Lazaer, 1991). Problem solving is recognized as a crucial component, but the ability to write song, execute a painting, stage a play, build up and manage an organization, carry out experiment is not included, presumably because the mentioned capacities cannot be probed adequately in short-answer tests (Costa & Bena, 2000). Moreover, intelligence is presumed to be universal, probably innate, capacity and so the diverse kinds of roles valued in different cultures are not considered relevant to a study of 'raw intellect' (Lazaer, 1999).

Gardner in his book, *Frames of Mind* suggested that each individual possesses at least seven such relatively independent mental abilities or intelligences. Thus he challenges the traditional view of intelligence as a unitary capacity that can be adequately measured by IQ tests. Instead, his theory defines 'intelligence as an ability to solve problems or create products that are valued in at least one culture and all brain-unimpaired people possess all the intelligences, which they blend in various ways in the course of creating something that is meaningful of performing a meaningful role or task' (Gardner, 1983).

Drawing upon findings from evolutionary biology, anthropology, developmental and cognitive psychology, neuropsychology and psychometrics, Gardner uses eight different criteria to judge whether a candidates' ability can be considered as an intelligence (Gardner, 1983):

i.   Potential isolation by brain damage

ii.   Existence of savants, prodigies and other exceptional individuals

iii.   An identifiable core set of operations-basic kind of information processing operations or mechanism that deal with one specific kind of input

iv.   A distinctive development history along with a definite set of 'end-state' performances

v.   An evolutionary history and evolution plausibility

vi.   Support from experimental and psychological tasks

vii.   Support from psychometrics findings

viii.   Susceptibility to encoding from a symbol system

In short, according to Gardner these criteria suggest that each individual possesses at least seven such relatively independent mental abilities or intelligences. Core operations are among the eight criteria he uses to evaluate another candidate's intelligence. In other words, the major intelligence will dominate other intelligences of a person in terms of understanding data or instructions or giving responses. In addition, a core operation is a basic information processing mechanism, which is something in the brain that takes a particular kind of input or information and processes it.

When the information is processed, the relevant response will be produced using one's intelligence. For example, when a student is asked to play football and score a goal, he may use whatever skills that he has to achieve it by scoring through imitating or creating his own football skills, preparing reasons if he is not able to score the goal, looking for the weaknesses of the goalkeeper and so on. All these processes need intelligence.

Throughout this study, the researcher uses Gardner's *Frames of Mind* as a main guide to understand the whole meaning of Multiple Intelligences. And at the beginning of his book, he defines the word intelligence based on these two senses:

- A species-specific characteristic, which means that homo sapiens as species that can exercise these intelligences.
- An individual difference, which means that all human possess the intelligences with each person has his/her own particular blend or amalgam of the intelligence.

For the purpose of this research, all categories of Gardner's Intelligences will be discussed. It is to determine which is/are the most dominant or influential intelligence/s in learning a second language.

2.2 Principles of Gardner's Multiple Intelligences

In general, Gardner's view towards intelligence is widely accepted among the new scholars not because it is totally a new idea but he brings it into a broader scope. Gardner's (1983) views towards intelligences are based on the principle that:

i.   Intelligence is not singular but multiple.
ii.   Every person is a unique blend of dynamic intelligences.
iii.   Intelligences vary in development, both within and among individuals.
iv.   All intelligences are dynamic.

For all the above principles, he adds that every person deserves the opportunities to recognize and develop the multiplicity of intelligences as MI can be identified and described. The exploit of one of the intelligences can be used to enhance another intelligence. In addition, personal background density and dispersion are critical to knowledge, beliefs and skills in all intelligences.

In short, every normal person has his own intelligence and can be identified using a test that can later be described and related to other intelligences. As intelligences provide alternate resources and potential capacities to become more human, regardless of age or circumstance, pure intelligence is rarely seen. As we understand more about MI, the list of intelligences changes.

2.3   Features of Multiple Intelligences (MI) Theory

According to Gardner, (Gardner, 1999b), both nature and nurture have a role in each individual's intelligence. It is not simply a matter of 'we are born with it'. MI theory holds that intelligence originates biologically, that is, all normal human should possess one or more intelligences. However, it also depends on an individual's life experiences. The more time an individual spends using certain intelligence and the better the instruction and the resources, the smarter one becomes. Each of the intelligence is universal, but how and to what extent the intelligences manifest themselves depends significantly on the cultural and individual context.

For example, in the case of Linguistic intelligence, writing might dominate in one context and storytelling in another. A child whose mother is a reporter and whose home is filled with books, a computer and writing implements might have developed more writing abilities than a child without those environmental supports.

Each intelligence represents a different way of thinking, solving problems and learning (Fogarty & James, 1998). Although each intelligence operates relatively independently-that is, the brain has distinct mechanisms and operations for each intelligence- in reality they work in combination, in a context of a domain or discipline. An intelligence and a domain are not the same thing and the distinction is an important factor. Intelligence refers to a biological and psychological potential and abilities, whereas domains and disciplines are social construct. While intelligence is the raw material we bring to bear in solving problems or fashioning products, domains are culturally-organized and valued activities 'in which an individual participates on more than just a casual bias and in which degrees of expertise can be identified and

2.4 Rationale of Applying Multiple Intelligences in Education

The theory of Multiple Intelligences (MI) is chosen and applied in this research based on the supports throughout the world as a basis for classroom instruction because it has been found to be very applicable (Campbell & Bruce, 1999).

The researcher strongly feels that MI provides a broad framework for instructional planning and teaching. This means that planning and teaching strategies are easier, especially in planning a lesson. MI also has the potential to reach all students including the gifted students. According to Campbell, the students who are being exposed to MI are willing to take risk in carrying out the activities given by the teacher even though it is difficult with the belief that they have the skill or talent to accomplish it.

This is because MI encourages and supports the individuality of students and teachers by getting involved in an educational project such as Newspaper in Education (NIE), role-playing, short drama, language games and a few more. Besides that, MI creates a positive learning environment by encouraging active learning for all students by giving them opportunities to use all their intelligences. Every attempt in fulfilling them is openly accepted. At the same time, MI is convenient, user friendly and easily accessed in books, journals and even from the websites.

Students are most motivated to learn when they are involved in activities for which they posses some talents. Thus, if a teacher presents material through variety of intelligences, it is more likely that he will reach a greater number of students. Through these actions, students will be more likely to learn, remember and apply that experience, thus creating positive emotional connections. Passive educational experiences alone tend to enervate and leave little lasting impact, especially when it involves learning a foreign language.

The theory of MI blends well with our present understanding of human brain because thinking and feeling are connected in patterning our emotions. Gardner's theory appeals most due to several researches by Campbell, Bruce & Dickinson, (1999) who described it as being:

2.4.1 Universal

It applies to both adults and children. Intelligences develop over a life span; indeed, they emerge more clearly as we get older. The ability to perceive similarities between our learners and ourselves helps to foster a sense of community and continuity in the classroom.

2.4.2 Simple

It is easy to remember as it is not complicated. It is easy to comprehend because it has a certain kind of common sense appeal.

2.4.3 Practical

It is easy to be implemented. Even young children can understand the basic ideas and participate in the construction of their own knowledge of thinking.

2.4.4 Predictable

It allows making usable predictions in a classroom context. A teacher can anticipate the kinds of performances and products that will engage them while doing the activities. Student's awareness of individual and collective strengths makes it easier to individualize the programme.

From another angle, it is important to distinguish between intelligence and related terms like knowledge, common sense and competence. By interpreting Gardner's MI, it is not only used as a guide of which intelligence is for which ability