ABSTRACT

FACULTY ONLINE TEACHING SELF-EFFICACY: A CULTURAL PERSPECTIVE

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This quantitative study explored the Royal Commission of Jubail Colleges and Institute (RCJCI) faculty online teaching self-efficacy. Today, online teaching is a requirement to overcome educational barriers related to time and place. The RCJCI is planning to integrate technology into its educational system and as a first step this study determined the RCJCI faculty online teaching self-efficacy. The role of culture in influencing self-efficacy toward the adoption of online education was generally defined as the relationship between the faculty online teaching self-efficacy towards online education and how self-efficacy might be influenced by their cultural dimensions. The study was guided by two theoretical frameworks, Bandura's self-efficacy and Hofstede's cultural dimensions. To answer the research questions, two survey instruments were used, the Modified Computer Technology Integration Survey (MCTIS) to measure self-efficacy and the Values Survey Module (VSM) to measure Hofstede's cultural dimensions. Two hundred thirteen faculty members responded to the electronic surveys. The findings from the descriptive data analysis indicated that the RCJCI had high levels of online teaching self-efficacy and suggested that the faculty have high confidence in their ability to use technology to deliver online educational materials. Hierarchal regression was conducted to explore the influence cultural dimensions had on faculty online teaching self-efficacy. The findings of the regression concluded that culture did not predict faculty online teaching self-efficacy to a statistically

significant degree. This suggested that technology creates its own culture that is not influenced by the users' nationality and cultural background.

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CHAPTER 1

INTRODUCTION

Advances in technology are motivating higher education institutions to use technology as a core delivery system of educational courses. Online education is a growing global trend that is reaching different societies and cultures. The changing context of learning and the massive advancements in technology are pushing universities to include online education as a core strategy (Hanna, 2013). Current literature indicates that online education is still a growing trend and more research is needed because of the everyday advancements in technology (Johnson et al., 2013). Moreover, the process of integrating online education into higher education institutions forces change in the organization, teaching, learning and curricula. Puzziferro (2008) indicated that online programs students' success is directly related to the faculty dedication to the online programs. However, McLean (2005) noted that many faculty are still resistant to the adoption of online teaching methodologies. The change associated with the integration of technology may become a barrier that educational institutions need to overcome (Assareh & Bidokht, 2010; Hanna, 2013; Simonson, Smaldino, Albright & Zvac ek, 2012). Bandura's (1997) research indicated that beliefs about teaching will not change until challenged by motivating evidence. In other words, a new situation must be present to force change in faculty teaching beliefs and perspectives, and in this case online education is the new challenge. Thus, self-efficacy is acknowledged as one of the main predictors of successful technology integration (Al-

Dosari, 2012; Aljabre, 2012; Robertson & Al-Zahrani, 2012; Yarbrough, Morgan and Vorhies, 2011; Zouhair, 2012). In addition, culture has been identified as an important aspect that leads to the success of online education integration (Gunawardena et al., 2009; Kumar & Uzkurt, 2010; Mitchell, 2009; Thompson & Ku, 2005; Wang & Reeves, 2007). Wang and Reeves (2007) add that "cultural sensitivity issues are important in instruction, regardless of whether one is teaching in a classroom, online, or through some sort of blended approach" (p.10). This means that instructional designers must take culture into consideration when designing online education materials to meet the educational outcome of the online education class. For this reason it is important to identify faculty current online teaching self-efficacy and cultural perspectives as a first step to introducing online programs to any higher educational institution. Moreover, identifying the faculty current online teaching self-efficacy and cultural perspectives will indicate the faculty acceptance of online technology and if there are any cultural issues that might hinder their online teaching self-efficacy.

In addition, Al-Harbi (2011) noted that despite the current educational revolution in Saudi Arabia, there is a gap in the integration of online education and this presents a challenge to educational institutions. Moreover, the National Center for E-learning and Distance Learning (2009), indicated that the number of online educational programs in Saudi Arabia could be limited to the introduction of Learning Management Systems (LMS) which suggests that more research on online education is required in Saudi Arabia in order to achieve the educational outcomes of online educational programs. For this reason, this research study attempted to add to the research literature on online education in Saudi Arabia by identifying faculty online teaching self-efficacy and how cultural perspectives might influence the faculty self-efficacy.

This study attempted to identify the Royal Commission of Jubail Colleges and Institute's (RCJCI) faculty self-efficacy towards online education by identifying the faculty online teaching self-efficacy and cultural perceptions. The findings of this study provided suggestions that will help the educational institutions provide faculty with the training and the development needed to ensure successful delivery and implementation of online education.

Chapter 1 provides an overview of the study including the following: online education in Saudi Arabia, an overview of online education, self-efficacy and culture, statement of the problem, significance of the study, research questions, theoretical framework, limitations, definitions, and summary.

Online Education in Saudi Arabia

In Saudi Arabia, face-to-face is the dominate form of educational instruction. However, in recent years there have been some educational institutions that have provided non-technological distance education programs where students only come to campus to take exams. Moreover, other educational organizations have attempted to adapt online education as an instructional methodology. Online education is not a new topic in the Western world, but it is still in its early stages in Saudi Arabia. The Saudi Ministry of Education released its ten year plan (2004-2014), which focuses on developing the needed infrastructure for digital technology to be properly implemented in all educational sectors (Ministry of Education, 2005). In 2006, the Ministry of Higher Education established the National Center for E-learning and Distance Learning. The National Center for E-learning and Distance Learning (2009) stated that its objective is to "guide the various efforts of Saudi higher education institutions to develop digital content, enrich the curricula and facilitate learning to achieve excellence in the educational process as a whole"

(p.30). Al-Dosari (2011) indicated that "Saudi universities are establishing e-learning centers and e-learning communities and some very limited courses are compulsorily delivered asynchronously online in the form of blended learning" (p. 392). Zouhair (2012) indicated that e-learning is fairly new to Saudi Arabia; however, the government, with all its sectors, is investing in online education to compete with international educational institutions. Aljabre (2012) showed that Saudi Arabia has the opportunity to advance teaching and teaching methodologies internationally and to add to the research on distance learning and online education. Furthermore, much of the literature on online education integration in Saudi Arabia identified culture, self-efficacy and the role that leadership plays in the integration of technology as important factures that influences the adoption process (Al-Dosari, 2012; Aljabre, 2012; Robertson & Al-Zahrani, 2012; Zouhair, 2012).

For this reason, this study attempted to identify the faculty online teaching self-efficacy and highlight the role of culture in influencing the faculty online teaching self-efficacy toward the online education. The study was conducted on the Royal Commission of Jubail Colleges and Institutes (RCJCI).

Online Education, Self-Efficacy and Culture

To discuss how self-efficacy and culture influences the development of online education, one must define online education, self-efficacy and culture. Defining these terms will frame the scope of this argument. In this study, online education is defined as the use of technology to deliver educational curricula and instruction weather in an online or blended learning environment. In other words, the definition is based on the integration of technology into an

educational system to improve the quality of learning. This definition originated from Dempsey and Richard in their 2012 study, where they define distance education as a "broad term that encompasses all learning involving technology in any way whatsoever" (p. 278). Moreover, a more formal definition was presented by Simonson, Smaldino, Albright and Zvacek (2012), who defined distance education as the "institution based formal education where the learning group is separated and where interactive telecommunication systems are used to connect learners, resources and instructors" (p. 7).

Robertson and Al-Zahrani (2012) indicated that many paradigms contribute to the success of online education and one of the most important ones that has been highlighted is self-efficacy. Self- efficacy is defined as ''people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1997, p. 7).

Many studies have reported culture as an important factor that influences the development of distance education (Gunawardena et al., 2009; Kumar & Uzkurt, 2010; Mitchell, 2009; Thompson & Ku, 2005; Wang & Reeves, 2007). Sir Edward Tylor (1871) defined culture as "that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society" (p. 1). Another definition of culture was presented by Hofstede (2010), who defined culture as "the collective programming of the mind that distinguishes the members of one group or category of people from others" (p. 6). In a different study, Schein (1990) defined culture as "what a group learns over a period of time as the group solves its problems of survival in an external environment and its problems of internal integration" (p. 111). However, in this study, Hofstede's (2010) culture definition will be adopted because the definition indicates that culture is the beliefs, values and assumptions that people or groups of people share in a community of practice (educational,

business, or virtual) and these beliefs, values and assumptions differentiate between the people or groups within that community of practice. Moreover, these assumptions are learned and adapted, not genetic (Hofstede, 2010). Identifying the influence culture has on the development of online education is very critical in influencing the acceptance of online learning in those cultures. Another reason for adapting Hofstede's definition is that it has been incorporated into several studies on the influence of culture on distance education. In addition, Hofstede proposed five dimensions that influence the national level of culture: power distance, individualism vs. collectivism, masculinity vs. femininity, uncertainty avoidance, and long-term orientation. These dimensions have been used in several studies to measure the different levels of culture (Al-Harthi 2005; Kumar & Uzkurt, 2010; Tapanes, Smith, & White, 2009; Thompson & Ku, 2005). It is believed that the development of online education is influenced by culture (Gunawardena, 2013; Hanna, 2013; Lim, 2012; Rao, 2011; White, 2007), and one of the variables that might result from this influence is acceptance of online education.

This study defines acceptance as the understanding of the responsibilities and challenges that require changes in educational organizations as they integrate technology. In other words, it incorporates the formulating of learning by improving performance through the use of management of technology in academic settings in an attempt to ensure success. This definition is derived from Molenda's (2008) definition of acceptance as the utilization, implementation and adoption of technology in an educational system.

For this reason, this research was dedicated to understanding faculty perceptions towards the use of online education and technology integration by identifying the faculty online teaching self-efficacy and cultural perceptions.

Problem Statement

The purpose of this study was to identify the faculty online teaching self-efficacy and role of culture in influencing the faculty online teaching self-efficacy in Saudi Arabia. The role of culture in influencing self-efficacy toward the use of online education was generally defined as the relationship between the faculty online teaching self-efficacy towards online education and how self-efficacy might be influenced by their cultural dimensions.

The RCJCI needs to integrate online education into its educational system to meet the needs of the increasing population and investments in the area. However, the literature from studies conducted on the integration of online education in Saudi Arabia has indicated that two main factors affect the technology integration process: faculty self-efficacy and culture (Al-Dosari, 2012; Aljabre, 2012; Robertson & Al-Zahrani, 2012; Zouhair, 2012). For this reason, it was significant to understand the RCJCI faculty online teaching self-efficacy as a first step to integrating online education. Furthermore, it was imperative to recognize how the RCJCI faculty culture might influence the faculty self-efficacy.

Significance of the Study

A study investigating the influence of culture on faculty online teaching self-efficacy in Saudi Arabia has the potential to contribute to the field in several areas. Although some studies have looked at several educational institution's readiness for online education in Saudi Arabia, no study has investigated faculty self-efficacy toward online teaching and how self-efficacy might be influenced by culture. Moreover, there is limited research on the cultural influence on the online education pre-adoption stage. The findings of this study highlighted the influence of

culture on faculty online teaching self-efficacy in Saudi Arabia in a new context, which added to the literature and suggested future studies on technology integration. In addition, it was hoped that the findings from this research would contribute to a better understanding of the relationship between online education, culture and self-efficacy.

Research Questions

This study was conducted to address the following research questions:

1. What is the online teaching self-efficacy for faculty?
2. Does culture play a role in influencing faculty online teaching self-efficacy?

Theoretical Framework

This study attempted to investigate the influence of culture on faculty self-efficacy toward the adoption of online education in Saudi Arabia. In other word, this study measured the online teaching self-efficacy level of the RCJCI faculty and how might culture influence the faculty online teaching self-efficacy. For this reason, the overarching theoretical frameworks guiding and shaping the research questions are Albert Bandura self-efficacy and Geert Hofstede cultural dimensions.

Bandura's (1997) self-efficacy is defined as ''people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (p. 7). Furthermore, self-efficacy affects an individual's choice of activities, persistence and effort. This theoretical framework will help in identifying the RCJCI faculty online teaching self-efficacy.

Hofstede's (2011) cultural dimensions describe the effect of culture on the values of society through a personality centered approach, which is to collect data from random samples of individuals and generate cultural characteristics or evaluations of culture. The use of this theoretical framework helped in identifying the faculty cultural dimensions, which might have had an influence on their adoption of online education and/or their self-efficacy (See Appendix A).

The combination of these theories helped in identifying the faculty online teaching self-efficacy and their cultural perceptions. For example, one of the variables that are identified by Hofstede's (2011) cultural dimensions is uncertainty avoidance which indicates if participants from a culture will venture into new unknown situations or choose to avoid them which will have a positive or negative influence on the participants' self-efficacy.

Limitations of This Study

The limitations of the study include the following: First, because the studyis descriptive and was constrained to the Royal commission of Jubail, a post-secondary educational sector, the findings of the study cannot be generalized to the population of the Kingdom of Saudi Arabia. Secondly, the research study was voluntary and individuals may choose not to participate. Thirdly, self-report data has an inherent limitation as the participants may give the answers they believe they are expected to give. Fourthly, the study did not consider gender as a variable because the educational system is segregated in Saudi Arabia, and the number of female faculty is too low to provide statistically significant information. Finally, the study only used four of Hofstede's five dimensions because there are no scores on Saudi Arabia in Hofstede's index for

the fifth dimension and this dimension indicated to have almost no impact on online communication (Ess, 2011).

Definitions

The terms defined below are specific to this study:

- Cultural perspectives: an individual's degree of power distance, collectivism, uncertainty avoidance, and masculinity.
- Faculty online teaching self-efficacy: faculty confidence in and perception of their ability to effectively utilize technology to deliver their curriculum and instruction in an online learning environment.
- Individualism vs. Collectivism: the extent to which individuals in the culture are integrated into a group.
- Masculinity vs. Femininity: the degree to which a culture values behaviors such as achievement, social support, quality of life and assertiveness.
- Online education: the use of technology to deliver educational curricula and instruction weather in an online or blended learning environment.
- Power distance: the extent to which a society accepts the unequal distribution of power within the society.
- Readiness to adapt: faculty behavioral ability to integrate technology in their pedagogy and transfer their classroom instructions to an online environment.

- Uncertainty avoidance: the extent to which the members of a culture are comfortable or uncomfortable with uncertain or unknown situations.

Summary

Understanding the faculty online teaching self-efficacy could be a valuable predictor of their instructional options in Saudi Arabia. Moreover, identifying the faculty cultural perspectives and how they might influence the faculty online teaching self-efficacy presented an opportunity to ensure the success of the technology integration process at the Royal commission of Jubail. Chapter 2 will provide a review of literature on self-efficacy and Hofstede's cultural dimensions to indicate the importance and the application of both concepts in the process of technology integration.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

The purpose of this chapter was to provide a thorough review of the literature to identify RCJCI faculty online teaching self-efficacy and what influence their culture might have on their online teaching self-efficacy. Self-efficacy is acknowledged as one of the main predictors of successful technology integration (Al-Dosari, 2012; Aljabre, 2012; Robertson & Al-Zahrani, 2012; Yarbrough, Morgan and Vorhies, 2011; Zouhair, 2012). In addition, culture has been identified as an important aspect that leads to the success of online education integration (Gunawardena et al., 2009; Kumar & Uzkurt, 2010; Mitchell, 2009; Thompson & Ku, 2005; Wang & Reeves, 2007). Thus, two theoretical frameworks were discussed and referenced in the reviewed literature. The first theory was Bandura's self-efficacy, and the second was Hofstede's cultural dimensions.

In this literature review, the following sections are presented: (a) methods of literature review, (b) self-efficacy, (c) faculty self-efficacy, (d) faculty online teaching self-efficacy, (e) culture, (f) culture defined, Hofstede cultural dimensions, (g) culture and online education, (h) faculty culture and online education, and (i) a summary of the literature review.

Methods of Literature Review

A literature review was conducted to explore the current trends in online education and, more specifically, to examine research pertaining to self-efficacy and culture. Articles were found using the Northern Illinois University Library search feature. Primarily, sources from the EBSCO database, Eric, and ProQuest were used in addition to Google Scholar. The following search terms were employed either in stand-alone or in different combinations: *online learning, distance learning, distance education, e-learning, asynchronous communication, synchronous communication, culture in distance education, cultural identity online, Hofstede's cultural dimensions, cultural orientation, individual culture, power distance, uncertainty avoidance, collectivism, masculinity, diversity in higher education, online learning adoption, pre-adoption and culture, pre-adoption of technology, culturally various learners, online course dropout, online learning leadership, online instructor, online learning benefits, challenges of distance education, self-efficacy, Bandura, mastery experience, vicarious experiences, verbal persuasion and psychological status.*

Distance Education

Distance education is a trend that can be traced to 1840 in England when Isaac Pitman began teaching shorthand lessons by correspondence (Williams, Nicholas & Gunter, 2005; Molenda, 2008). Since then there has been massive developments, in the United States, television, satellite and early computer programs were first used in the early 70s at the University of Wisconsin – Madison by Charles Wedemeyer, who developed the Articulated Instructional Media (AIM) distance education system (Black, 2013; Williams et al., 2005; Moore & Kearsley, 2005). In the 70s and early 80s, satellites were used for television broadcasting, which led to an increase use of

audio, video recordings, teleconferencing and interactive telecommunication. Moreover, personal computers and the development of CD-ROMs led to what is known as “multimedia” and the Internet has become a significant facilitator for remote learning (Moore and Kearsley, 2005; Simonson, Smaldino, Albright and Zvacek, 2012). To summarize the evolution stages of Distance Education, Taylor (2001) indicated that distance education has evolved through five generations: first, the Correspondence generation which was based on print technology; second, the Multimedia generation that incorporated print, audio and video innovations; third, the Telelearning generation which used applications of telecommunications innovations to provide opportunities for synchronous communication; fourth, the Flexible Learning generation that is based on online delivery via the Internet; and fifth, the Intelligent Flexible Learning generation, a derivation of the fourth generation which aims to utilize the features of the Internet and the Web.

Simonson et al. (2012) defined distance education as the “institution based formal education where the learning group is separated and where interactive telecommunications systems are used to connect learners, resources and instructors” (p.7). However, in recent years the term's Distance Education, Online learning, Web-based learning and E-learning have been used interchangeably because of the raped development of learning technology, which has outstripped the ability to modify or maintain existing definitions (Dempsey & Richard, 2012).

In Saudi Arabia, face-to-face is the dominant form of educational instruction. However, in recent years there have been some educational institutions that have provided non-technological distance education programs where students only come to campus to take exams. Moreover, other educational organizations have attempted to adapt online education as an instructional methodology. Online education is not a new topic in the Western world, but it is still in its early

stages in Saudi Arabia. Zouhair (2012) indicated that e-learning is fairly new to Saudi Arabia; however, the government, with all its sectors, is investing in online education to compete with international educational institutions. Aljabre (2012) showed that Saudi Arabia has the opportunity to advance teaching and teaching methodologies internationally and to add to the research on distance learning and online education. Furthermore, much of the literature on online education integration in Saudi Arabia identified culture, self-efficacy and the role that leadership plays in the integration of technology as important factures that influences the adoption process (Al-Dosari, 2012; Aljabre, 2012; Robertson & Al-Zahrani, 2012; Zouhair, 2012). Additionally, culture has been identified as an important aspect that leads to the success of online education integration (Gunawardena et al., 2009; Kumar & Uzkurt, 2010; Mitchell, 2009; Thompson & Ku, 2005; Wang & Reeves, 2007). The coming section will provide more details on both self-efficacy and culture.

Self-Efficacy

The term self-efficacy was derived from Albert Bandura's Social Cognitive Theory (SCT), which describes the relationship between behavior, the environment and personal factors. This is what Bandura refers to as human agency in triadic reciprocal causation (Figure 1). This transactional view of self and society, internal personal factors (cognitive and biological events) and environmental events all operate as interacting determinants that influence each other bi-directionally (Bandura, 1997). This means that individuals' responses to different situations are determined by their behavior, environment or personal factors.

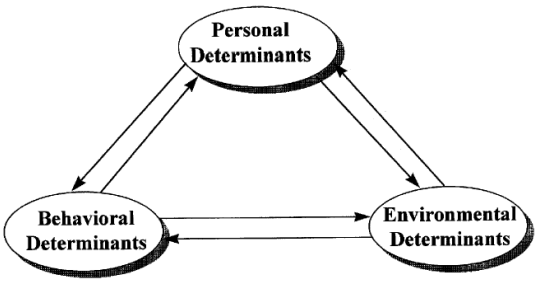

Figure 1: Bandura's social cognitive theory explains relationships between the three major classes of determinants in triadic reciprocal causation (Bandura, 1997, p. 24).

Bandura (1997) indicated that motivation and learning are influenced by self-efficacy, which measures personal comprehension in a particular situation. Self-efficacy is defined as ‘‘people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (p. 7). From a social learning perspective, self-efficacy is context-dependent, and associated with social anxiety and attention. Thus, self-efficacy affects an individual's choice of activities, persistence and effort (Bandura, 1997). In other words, the level of self-efficacy influences choice and achievement as indicated by Pajares (1996), who stated that self-efficacy assesses peoples' confidence level to "engage in tasks in which they feel competent and confident and avoid those in which they do not" (p. 544). If one places judgment on their ability to engage in activities, their participation is based on that judgment. Bandura (1997) indicated that self-efficacy is a generative capability, not a fixed trait. That is, people develop different levels of self-efficacy beliefs in different areas, which might help to explain why people with a similar skill level might perform differently.

According to Bandura (1977, 1984, 1995, & 1997), one's efficacy is based on four factors:

1. Mastery experience, which is based on information interpreted from previous experiences. Individuals evaluate the results of their actions and develop beliefs about their ability to engage in activities.
2. Vicarious experiences, refers to the observation of others performing tasks. Observing the success of others contributes to the observers beliefs of their ability to engage in similar activities.
3. Verbal persuasion, which is received from others, can contribute to the development of self-efficacy beliefs of one's ability to engage in a task. Positive persuasion will empower and negative persuasion will weaken these.
4. Psychological status refers to the emotional state of the individual. The level of confidence is guided by the emotional state of individuals as they experience an action that might influence their self-efficacy beliefs as they contemplate an action. Negative emotional reactions, such as fear, stress and anxiety, can lower self-efficacy perceptions.

In terms of technology adoption, the decisions that individuals make about their ability to complete technology tasks have been linked to computer attitudes, which affects future use of the technology (Straub, 2009). In addition, Chien (2011) added that both systems and teachers have significant influence on online teaching effectiveness and that high self-efficacy results in better teaching effectiveness. Faculty self-efficacy towards technology integration is considered a critical element that affects faculty integration of technology (Ertmer et al. 2003; Hall 2008; Al-Awidi & Alghazo, 2012). This means if the users have positive attitudes toward computer and technological use, then they positively engage in technology integration opportunities.

Faculty Self-Efficacy

Faculty self-efficacy was defined by Tschannen-Moran, Hoy and Hoy (1998) as "the teacher's belief in his or her capability to execute courses of action required to successfully accomplish a specific teaching task in a particular context" (p. 233) which relates to Bandura definition of self-efficacy. Tschannen-Moran, Hoy and Hoy (1998) investigated faculty self-efficacy by conducting a literature review on teacher's self-efficacy spanning from 1974 to 1997 covering different stages of teachers careers (pre-service, novice and in-service). The findings of their extensive literature review indicated that there is a pattern between teachers' self-efficacy and students' achievements. Thus, the higher the teachers' self-efficacy the better the use of instructional materials, which leads to higher students achievement. In addition, Bandura (1997) indicated that several studies found a relationship between teachers' perceived self-efficacy with instructional styles and students achievement. Moreover, Tschannen-Moran and Hoy (2001) highlighted several points that represent the relationship between high levels of teachers' self-efficacy and teachers' characteristics: they allocate more time to planning and organization; they are more helpful and understanding to student's needs; they are willing to explore new pedagogy and try new instructional methods; they are enthusiastic about teaching and have greater commitment to teaching. As described, the level of teachers' self-efficacy proposes a direct relationship to teachers' willingness to implement new instructional methods such as the use of technology to deliver lesson instructions. This research will merge the concept of faculty self-efficacy with online education.

Faculty Online Teaching Self-Efficacy

Faculty online teaching self-efficacy refers to their confidence to teach online by integrating technology in their instruction. Several studies indicated that the intention to integrate

technology is best indicated by self-efficacy beliefs and that teachers who have high levels of self-efficacy to teach using technology are more enthusiastic and spend more time on technology tasks than those with low levels of self-efficacy (Ertmer et al. 2003; Wang et al. 2004; Anderson and Maninger 2007). Self-efficacy's influence on the acceptance of distance education tools and programs was investigated by several researchers (Al-Awidi & Alghazo, 2012; Kumar & Uzkurt, 2010; Robertson & Al-Zahrani, 2012; Hall, 2008). Following a mixed methods approach, Robertson and Al-Zahrani (2012) conducted a study to measure the relationship between self-efficacy and technology integration within the teacher education program using surveys and interviews. The survey included a section about demographic and background information and another about general self-efficacy. Interviews were conducted to clarify irregularities in responses. Similarly, Al-Awidi and Alghazo (2012) conducted a study using both interviews and surveys; however, in this study the survey was applied twice; at the beginning of the pre-service teaching program and at the end to identify any change in their perceptions and self-efficacy. Both studies have found that self-efficacy has a strong influence on the success and acceptance of distance education. Furthermore, the studies suggested that organizations should incorporate systematic and strategic leadership, effective curriculum design and innovative pedagogies to positively influence self-efficacy toward distance education. Moreover, Hall (2008) indicated that teachers with high computer self-efficacy were more creative in finding ways to integrate technology in their pedagogy. Another study was conducted by Kumar and Uzkurt (2010), who examined the effect of self-efficacy on the innovativeness of professionals within a cultural context. Kumar and Uzkurt indicated that an innovativeness of employees, as demonstrated in previous research, contributes beneficially toward an organization’s competitiveness and growth. The study also investigated the impact of Hofstede’s cultural dimensions on the relationship

between innovativeness and self-efficacy. Quantitative data using a three-section survey, were collected from 271 professionals from several organizations in Turkey. The first measured consumer innovativeness, the second measured self-efficacy using a nine-item self-efficacy scale, and the third section measured cultural dimensions using Hofstede's cultural dimensions scale. The findings indicated a positive relationship between self-efficacy and innovativeness; moreover, individualism had a positive effect on this relationship. The researchers concluded that the findings of the study will help in assessing the innovation potential of an organization as well as help in training employees to make the organization innovative. In addition, these studies indicated a need for future research on both cultural influences and self-efficacy using different methodological approaches, applying the studies in different cultures to validate procedures and findings, or using other theoretical frameworks. However, the current research study attempted to identify the RCJCI online teaching self-efficacy and how it might be influenced by the faculty cultural dimensions. In the study, the Modified Computer Technology Integration Survey (MCTIS) will identify the RCJCI faculty self-efficacy toward online education.

Additionally, Bandura (1997) indicated that cultural values and practices affect how self-efficacy beliefs are developed. The coming section will discuss a cultural theoretical framework that might identify the influences of culture on the RCJCI faculty online teaching self-efficacy.

Culture

Online education can be designed and delivered in a manner that provides equal learning opportunities to all learners by accommodating diverse learners' environments (Palloff & Pratt, 1999). For instance, online education can be designed to provide a learning environment where students work at their own pace and give teachers the opportunity to reach learners regardless of

where they are (Wang & Reeves, 2007). This openness highlighted the importance of understanding the influence of culture on design and integration of online education in the educational process (Wang & Reeves, 2007). Few would disagree that cultural influence is important, but there is little published literature on the cultural aspect of online teaching and learning (Wang & Reeves, 2007). Moreover, most of the research conducted on the influence of cultural factors on online education only looked at culture within the online learning environment (post-adoption) (Al-Harthi 2005; Kumar & Uzkurt, 2010; Tapanes, Smith, & White, 2009; Thompson & Ku, 2005; Tu, 2001; Wang & Reeves, 2007) rather than how culture might influence the assumptions for online learning (pre-adoption). In addition, most of the studies investigated the students' cultural perceptions and not the Faculty, and this might be identified as the biggest gap in the literature. For this reason, the findings of this study will add literature that highlights faculty cultural perspectives and how those perspectives might influence the faculty pre-adoption of online education.

Culture Defined

Wang and Reeves (2007) indicated that several researchers have attempted to define culture, to the extent that there are more than 160 definitions of culture. However, this study will adopt Hofstede's (2010), definition which defines culture as "the collective programming of the mind that distinguishes the members of one group or category of people from others" (p. 6). Hofstede emphasizes that culture is how people perceive their environment and how those perceptions might influence their actions in new or unknown environments. This correlates with Bodley (2000), who suggested looking at culture from three aspect: mental (what people think?), behavioral (what people do?) and, material (what people produce?). Thus, Bodley believes that culture is socially transmitted and learned. This study is more interested in the

mental aspect of culture and how this aspect might influence faculty decisions to adopt and accept online education, which leads to the other two aspects as an outcome. Moreover, the mental concept links directly to Hofstede's definition, which leads to what is known today as Hofstede's cultural dimensions.

Hofstede's Cultural Dimensions

Hofstede's cultural dimensions describe the effect of culture on the values of society through a personality centered approach based on collected data from random samples of individuals to generate cultural characteristics or evaluations of culture. Hofstede's model was developed as a result of his world value survey of IBM's 117,000 employees in 40 countries in the 1960s and 1970s. While Hofstede's (2010) cultural dimensions model involves five dimensions, this study only considers the following four:

1. Power distance, which is the extent to which a society accepts the unequal distribution of power within its society (Hofstede, 2011). This represents inequality within the members of a culture. For example, in high power distance cultures the, educational system is teacher-centered, while in low power distance cultures, the system is student-centered (See Appendix B).
2. Uncertainty avoidance, which measures the extent to which the members of a culture are comfortable or uncomfortable with uncertain or unknown situations (Hofstede, 2011, 2010). It is how much confidence people have when dealing with suppressing unknown and unusual situations. Uncertainty avoiding cultures try to limit the possibility of such situations through laws, rules and behavioral codes. For example, in weak uncertainty avoidance cultures, a teacher may say "I don't know," while in

wide and strong uncertainty avoidance cultures, the teacher is supposed to have all the answers (Hofstede, 2011).

3. Individualism vs. Collectivism, which is the dimension referring to the degree to which individuals are integrated into a group. In individualistic cultures, the ties between individuals are loose and everybody looks after themselves. In collectivist cultures, people are integrated into strong, cohesive, and loyal groups where individuals perform and act for the good of the group (Hofstede, 2011).
4. Masculinity vs. Femininity, which refers to the degree to which a culture values behaviors, such as achievement, social support, quality of life and assertiveness. For example, in a feminine culture, men and women have the same modest and caring values, while in masculine cultures men are assertive and ambitious, but women might be assertive and ambitious (Hofstede, 2011).

Hofstede's (2011) power distance, uncertainty avoidance, individualism vs. collectivism, and masculinity vs. femininity index lists scores for 76 countries and Saudi Arabia (Figure 2), India (Figure 3), United Kingdom (Figure 4), and Jorden (Figure 5) are from them.

Figure 2: Hofstede's cultural dimensions index scores on Saudi Arabia (Hofstede, n.d.)

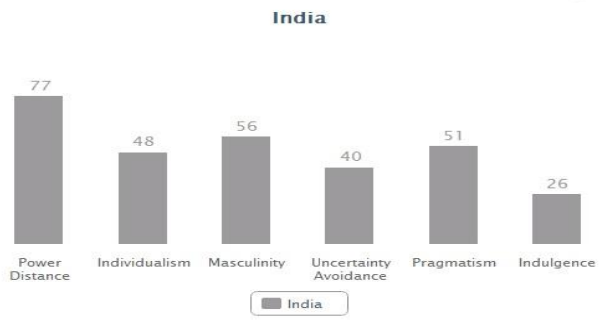

Figure 3: Hofstede's cultural dimensions index scores on India (Hofstede, n.d.)

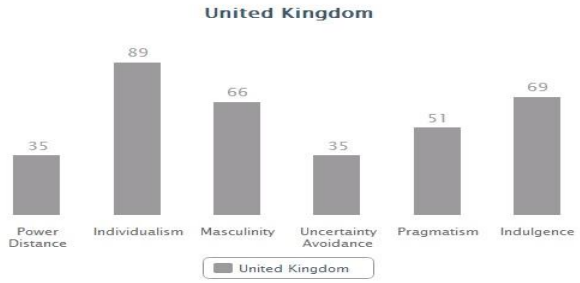

Figure 4: Hofstede's cultural dimensions index scores on United Kingdom (Hofstede, n.d.)

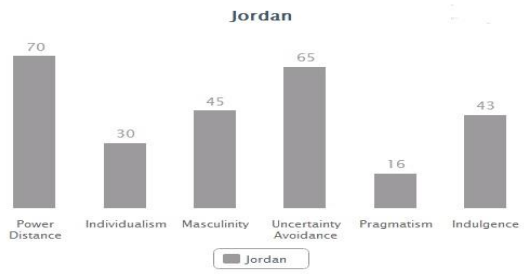

Figure 5: Hofstede's cultural dimensions index scores on Jordan (Hofstede, n.d.)

Hofstede's cultural dimensions guided several studies (Al-Harthi, 2005; Kumar & Uzkurt, 2010; Tapanes, Smith, & White, 2009; Thompson & Ku, 2005). Moreover, Wang and Reeves (2007) indicated that more than 2,000 articles and books have cited Hofstede's 1980 book, *Culture's Consequences: International Differences In Work Related Values,* where he

introduced the cultural dimensions. Hofstede developed the World Value Survey (WVS), which was used to gain data from different countries around the world. This validated survey is available in several languages, and permission was granted to use it for research purposes (see Appendix C).

However, Hofstede's model has been the subject of considerable criticism (Baskerville, 2003; Bhimani et al., 2005; Harrison & McKinnon, 1999; McSweeney, 2002) which is summarized in Table 1.

Table 1:

The Four Critiques Addressed to Hofstede's Model (Viberg & Grönlund, 2013)

Critics	*On the extensive use of the model*		*On the model itself*	
	Harrison & McKinnon (1999)	Bhimani et al. (2005)	McSweeney (2002)	Baskerville (2003)
Empirical weaknesses	_____	Only well-known cultural settings are studied (ethnocentrism).	IBM is not representative for the world.	Only nations are studied.
Theoretical weaknesses	The richness and specificities of a culture are not grasped; the model is predictive and self-referencing.	The specifics of culture are not understood.	The richness and specifics of a culture are not grasped; the model is self-predictive and self-referencing.	The richness and specifics of a culture are not grasped; the model is self-predictive and self-referencing.
Methodological weaknesses	_____	Nomothetic methods are inappropriate in the understanding of cultural specifics.	Statistical measures do not inform on the contents of culture and impact on practices.	Questionnaires are inappropriate to understand culture.
Contributions to knowledge	Conclusions are homogenous and predictable	Conclusions are homogenous and predictable	Conclusions are neither robust nor reliable.	Conclusions are poor

Moreover, Signorini, Wiesemes, and Murphy (2009) criticized Hofstede model by indicated that comparing the concept of culture with nationality is incorrect and that the model does not take into consideration the changing nature of culture in the new global context of higher education. Dartey-Baah (2013) added that Hofstede model does not take into consideration that many countries have more than one culture. For example, India has several regional and local subcultures which have different beliefs and languages. Viberg and Grönlund (2013) conducted a study to examine students' attitudes toward mobile-assisted language learning (MALL) and if cultural factors influenced their attitudes using Hofstede cultural dimensions. The findings of the study indicated that the students had positive attitudes toward MALL Moreover, the study indicated that Hofstede's dimensions could not statistically explain the differences in attitudes toward MALL in the selected sample. The study concluded that technology itself is the most important factor, more important than the physical environment culture. Thus, culture is not in a constant and changes based on the environment and situation (Viberg & Grönlund, 2013; Signorini, Dartey-Baah, 2013;Wiesemes, & Murphy, 2009).

Taking the criticism into consideration, Hofstede cultural dimensions are still the most used and employed cultural model (Viberg & Grönlund, 2013; Joannidés, Wichramasinghe, & Berland, 2012; Dartey-Baah, 2013). This study applied the model based on Hofstede recommendations and investigated culture as national not individual because several studies have indicated that Hofstede cultural model should not be utilized on the individual level (Blodgett, Bakir & Rose, 2008; Hofstede, 2013).

Because Hofstede's cultural dimensions have been tested in Saudi Arabia using the WVS, this study used those constructs as the hypothetical factor to determine the RCJCI faculty culture influence on their online teaching self-efficacy.

Culture and Online Education

Hannafin and Hill (2007) stated that, "cultural considerations reflect beliefs about education, the role of individuals in society, traditions in how different disciplines teach and learn, and the prevailing practices of a given community" (p.531). Thus, the educational process is influenced and guided by the culture of those providing the knowledge and those receiving it. I am in agreement with Young's (2014) argument that culture is central to learning and teaching. In addition, Gunawardena (2013) indicated that designing an online educational program is efficient; however, it will be culturally and contextually insufficient. In other words, the design of a well-organized online course is not difficult, but to make that course meaningful, cultural perspectives must be taken into consideration in the design process. Thus, culture must be measured and identified in an attempt to implement successful online educational programs. The research on culture and distance education is limited and most of the studies examined the role of culture using Hofstede's cultural dimensions (Gunawardena, 2013). Although most of the studies investigated the influence of culture on online learning and not online teaching, it will be helpful to explore some of those studies to understand the impact of culture on online education.

In 2005, Al-Harthi attempted to understand the distance education experience from the cultural perspective of six Arab graduate students pursuing degrees in the United States. The study was guided by Hofstede's cultural dimensions and Hall's concept of low and high context cultures. Three telephone semi-structure interviews were used to collect data. The interviews indicated that the students were hesitant to take online courses because they associated online

courses with independent learning, which correlates with Hofstede's description of Arab culture's amount of high uncertainty avoidance. Moreover, the study found that the students deliberately avoided participating in online discussions because they perceived high participation as an attempt to show off and look smart. Other findings indicated language difficulties, fear of social shame, and avoidance of confrontation. The study concluded that the reason for the students' resistance to distance education was the result of the governmental policies of the Arab Gulf States toward distance education. In addition, the researcher advises that Arab Gulf States deal with this resistance at both the individual level and the governmental level by introducing, promoting and delivering distance education. Similarly, Tapanes, Smith and White (2009) conducted a quantitative study to analyze the effects that Hofstede's individualism/collectivism and ambiguity tolerance/intolerance cultural dimensions had on online courses offered from an individualist/ambiguity tolerant perspective. Data were collected from 66 participants, of which 26 were online instructors and 40 were online students from two university systems in the US. Tapanes et al., (2009) used two electronic surveys, one for students and one for instructors, and each survey was divided into three sections. The first section looked at demographic information, and the second section included direct questions about culture and the online classroom. The third section of the survey measured Hofstede's cultural dimensions, which were adopted from his value survey. The findings revealed that the students' cultural dimensions related significantly to some of their perceptions of culture and the online classroom because collectivist learners felt that the individualist instructors were not aware of cultural differences in the online classroom. The researchers concluded that cultural differences do affect how students perceived the online classroom and instructors must be aware of those differences. Tapanes et al., finding's correlated with the findings of Al-Harthi study, and both studies confirm the need

to understand cultural perspectives before venturing into online education. Moreover, the studies support the use of Hofstede's cultural dimensions theoretical framework to highlight faculty cultural perspectives. Another study on the effects of culture on online learning success was conducted by Mitchell (2009), who conducted an in-depth study to examine faculty and administrators' perceptions of how online education affected the organizational culture of a large community college. In this qualitative study, Mitchell interviewed 13 administrators and eight faculty members. The findings of the study suggest that there were changes in structure and procedure. When teaching and learning in online and face-to-face settings, online education had an impact on both faculty and administrators' roles, resulting in a new perception of the organization itself. Additionally, Gunawardena, Alami, Jayatilleke, and Bouachrine (2009) conducted a cross cultural study of Sri Lankan and Moroccan societies, and found that the integration of technology was not a technological innovation, but a practice that affected the users' culture. The participants in this study developed unique forms of language and visual expressions to communicate feelings and ideas. They also developed new identities for their online environment. The links between culture and online learning were interchangeable which suggested change in the personality of users in the online environment. The findings of these studies were clear indications of the importance of understanding the effect culture has on an organizations' faculty and staff's perceptions of online learning and how it might change the organization as a whole. Thus, identifying faculty cultural perspectives and how those perspectives influence faculty online teaching self-efficacy is very important.

A study that looked at both Hofstede's framework and self-efficacy was conducted by Kumar and Uzkurt (2010), who attempted to understand the effect of self-efficacy on the innovativeness of professionals within a cultural context and to investigate the mediating impact

of Hofstede's cultural dimensions. Data collected from 271 professional respondents in Turkey indicated a positive relationship between self-efficacy and innovativeness and found positive effects of individualism on that relationship, which could be utilized to raise consumer innovativeness. The study concluded that the Turkish culture perceived the integration of technology differently than the Western world and that individualism was found to be strong in the Turkish culture, while collaboration and teamwork were higher in the Western world. Although, Kumar and Uzkurt's study was not dedicated to education, it provides a quantitative research guide to the integration of both the Hofstede and self-efficacy theoretical frameworks.

All the studies listed above concluded that culture is a variable that has an impact on the adoption and acceptance of online education in any organization. Moreover, all the studies emphasized the need for more research to be conducted on cultural aspects of online education. Thus, this study will attempt to identify the cultural perspectives of the RCJIC Faculty. The findings of this study will help the organization identify the personal and cultural factors that will lead to the development of successful distance education implementation pedagogically and technologically. The next section will highlight the role faculty cultural perceptions play in the integration of technology.

Faculty Culture and Online Education

Wang and Reeves (2007) indicated that the pedagogical choices made by instructors and designers in online education are very important concerns for both researchers and practitioners. This concern is shared by Kim, Kozan, Kim and Koehler (2013), who argue that meaningful integration of technology in teaching and learning requires that teachers develop technical skills and redefine their teaching pedagogy and beliefs. That is, teachers need to change the way they teach, which is based on their beliefs and acceptance of the reason for that change. Thus,

understanding faculty self-efficacy and cultural perceptions might lead to a better understanding of the faculty readiness for online education which will define what pedagogical practices they will apply. In addition, similar to students' acceptance of online education based on their culture, faculty cultural values manifest themselves in their philosophy of teaching (Sadykova & Dautermann, 2009). Faculty cultural beliefs might influence their pedagogy, which might hinder successful online education integration. Moreover, faculty beliefs about teaching and technology influence technology integration in the educational process (Kim, Kozan, Kim & Koehler, 2013). I am in complete agreement with Gunawardena (2013), who stated that "we as distance educators need to be cognizant of our own positionality and communicate our world views clearly in our designs, and through rigorous evaluation and research determine which designs work best in specific contexts for specific learners" (p.197). Yes, it is important to understand what works for the faculty and what does not. This will help the RCJCI determine what support is needed to ensure successful integration of online education. As technology become more readily available for teachers and students in Saudi Arabia, ongoing support, and training for new online faculty is crucial to ensure a student-centered online education learning environment.

It is important to understand the relationship between self-efficacy and culture (Kumar and Uzkurt, 2010) and how they influence each other. For instance, understanding the influence of the Hofstede's cultural dimension uncertainty avoidance on the faculty self-efficacy will help in identifying the reason why the faculty had low self-efficacy towards teaching online. Thus, the RCJCI will be able to provide the support needed to help the faculty overcome obstacles and provide successful online education programs.

Summary

Chapter 2 provided a literature review on Bandura's self-efficacy and Hofstede's cultural dimensions, which are the theoretical frameworks that guided this study. Self-efficacy was discussed and defined by highlighting important concepts such as faculty self-efficacy and online teaching self-efficacy. Moreover, self-efficacy was linked to this study using different studies that investigated the influence of self-efficacy on the decision to adopt technology and integrate it into the everyday pedagogy in the form of online teaching. In addition, culture was defined and Hofstede's dimensions were introduced and examined. The literature presented evidence that both self-efficacy and Hofstede's cultural dimensions influence the success of technology adoption and integration.

The coming chapter will present the study's population and participants, research design, data collection and data analysis procedures.

CHAPTER 3

METHODOLOGY

The purpose of this quantitative, descriptive, cross-sectional survey research study was to identify the RCJCI faculty online teaching self-efficacy and examine the influence of the faculty cultural dimensions might have on their online teaching self-efficacy.

This chapter is a description of the methods and procedures that were utilized for this study to answer the following research questions:

1. What is the online teaching self-efficacy for faculty?
2. Does culture play a role in influencing faculty online teaching self-efficacy?

Research Design

This quantitative research study applied a descriptive cross-sectional survey research design. The descriptive section was based on survey research, which measured the RCJCI faculty online teaching self-efficacy using the Modified Computer Technology Integration Survey (MCTIS) (see Appendix C). Furthermore, the Values Survey Module (VSM) was administered to identify the faculty cultural dimensions (see Appendix D). Both surveys included Likert-type response scales. The descriptive data was used to address Q1.

A regression analysis approach was used to describe and measure the relationship between two or more variables (Creswell, 2012). In this study, a multiple regression analysis was

used to answer Q2 and predict whether relationships exist among the faculty online teaching self-efficacy and the faculty cultural dimensions.

Ethical Protection of Research Participants

The research was conducted in an ethical, moral and responsible manner in accordance to the requirements of the Institutional Review Board (IRB). Creswell (2012) indicated that individuals have the right to decide when, to what extent and to whom his/her behavior and attitudes would be revealed, so before conducting the research IRB permission was pursued and granted on February 19th, 2014 (see Appendix G).

To ensure privacy during data collection, the survey was administered anonymously to the target population. Moreover, the data was stored on a password protected hard drive that no one other than the researcher had access to. The consent form included an explanation of the research purpose and that participation was voluntary. The consent form was in an electronic format which was based on a yes or no answer to grant consent. (see Appendix C).

The instruments used in this research were modified and permission was granted from the original authors to use the instruments with the modification (see Appendix E).

Setting

The Royal Commission of Jubail and Yanbu (RCJY) in the Kingdom of Saudi Arabia is an autonomous organization of the saudi government that was established in 1975. the rcjy's vision is to be the first choice for investors in petrochemical and energy-intensive industries and has a mission to plan, promote, develop and manage petrochemical and energy-intensive industrial cities through successful partnership with investors, employees, communities and other stakeholders (RCJY, 2013). The RCJY is responsible for two major industrial cities: Jubail and Yanbu. To achieve its goals, the RCJY has made every effort to address the needs of investors by

providing all investment requirements from basic services to human resources, which are provided through the RCJY post-secondary educational institutions (Table 2).

Table 2:

The RCJY Local and International Investors' Numbers in Jubail Industrial City (RCJY, 2013).

Industrial Park	*Existing Industries in Operation*	*New Industries In Construction*	*New Industries In Design / Planning*	*Total*	*Existing Industries In Expansion*
Primary	19	2	7	28	8
Secondary	20	1	6	28	2
Support	136	28	32	196	7
Total Industries	176	31	45	252	17

There are three educational institutions in the Royal Commission of Jubail (RCJ): Jubail Industrial College (JIC), Jubail Technical Institute (JIT) and Jubail University College (JUC). The managing directors of these institutions report to the General Manager of Higher Education of Jubail. Jubail's educational institutions have two main functions: to provide quality education to the Saudi youth living in the area and training opportunities to the companies investing in the area. This has not been an easy task in the last five years because of the boost in population in the area due to the increase in the investing companies from the petrochemical industry at Jubail Industrial City. For example, Jubail Industrial College, which offers both associate's and bachelor's degrees, has more than 5,000 students enrolled in different departments and is providing training to more than 1,000 different company trainees (RCJY, 2013). These numbers

are increasing each year, and the demand has led JIC to turn down training requests because of the lack of space, time and staff. Each of the three institutions are facing the same problem and cannot meet the demand for the same reasons, which might be due in part to the educational delivery methods that are primarily face-to-face.

Because the RCJCI has not been able to satisfy the surge in educational and training demands, online-education has been suggested as a solution, which might help the RCJCI provide education and training with no such limitations. This research is a first step to ensure the success of integrating online learning into the everyday educational process.

Participants and Sampling Procedure

The Royal Commission of Jubail Colleges and Institute sector include three post-secondary education institutions offering Diploma, Associate and Bachelor's degree level education in Engineering technology, Business and IT, Science and Engineering, and Technical skills areas. A total of 533 faculty members are listed as currently employed in the three higher education and training institutions. Out of these three higher education institutions of RC Jubail, Jubail Industrial College employs about half (50.3%) of the faculty members (268) followed by about one third (31.8%) faculty members employed by the Jubail University College (170, and about one sixth of the faculties are employed by Jubail Technical Institute (17.8%). The participants in the study were from the 533 faculty who come from different parts of the world and teach different subjects; therefore, this research divided the population into two categories: Saudi faculty and International faculty (see Table 3). The reason for this was to have two comparative nations which is one of the requirements of Hostede's framework. The reason all the participants were male, was because there were only 9 female faculty members when this

study was conducted. From a total population of 533 faculty members in the RCJCI sector, about 40% faculty members (213 or 39.9%) participated in the online questionnaire survey. Among the participating faculty members nearly seventy percent (69.5%) are of international origin. They come from countries of Asia, Middle East, Africa, Europe, America and Australia. About thirty percent (30.5%) of the responding faculties are of Saudi Arabian origin.

Table 3:

The Colleges and Institutes Sector In Jubail Faculty (March 2014)

		Jubail Industrial College	*Jubail University*	*Jubail Technical Institute*	*Total*
Faculty Nationality	*Saudi*	57	31	26	114 (21.4%)
	International	211	139	69	419 (78.6%)
	Total	268(50.3%)	170(31.8%)	95(17.8%)	533(100%)

Hofstede and Minkov (2013) indicated that the ideal sample size is 50 respondents from each country and that a sample size smaller than 20 should not be used because outlying answers by single respondents will affect the results. Thus, four cultures represented Hofstede's requirements': Saudi Arabia (n=67), Jordan (n=26), Indian (n=27) and British (n=19). The other nationalities will be excluded from the cultural dimensions analysis (Table 4).

Table 4:
Teachers' Nationality

		Frequency	*Percent*	*Valid Percent*	*Cumulative Percent*
Valid	Saudi Arabian	67	31.5	31.5	31.5
	Jordan	27	12.7	12.7	44.1
	India	27	12.7	12.7	56.8
	United Kingdom	19	8.9	8.9	65.7
	Other Countries	73	34.3	34.3	100.0
	Total	213	100.0	100.0	

In addition, nearly two thirds of the participating faculty members have over ten years of teaching experience, while one fifth of them have five to ten years of teaching experience, and nearly one sixth of the faculties have worked up to five years (Table 5). The distribution of teaching experience also indicate that most of the faculty members are familiar with face to face and on line teaching options and practices.

Table 5:
Teaching Experience

		Frequency	*%*
Valid	0-5 Years	38	17.8
	5-10 Years	44	20.7
	10 + Years	131	61.5
	Total	213	100.0

Moreover, over half of the participating faculty members (55.9%) are over forty years of age and about one third (36.6%) of them are between thirty and forty years of age group. Only 7.5% faculty members are young (below thirty years old) (Table 6). So among the 40% of the

RC Institute faculty members who participated in the survey, slightly more than half of the respondents are over forty years of age. This indicate the sample include more mature faculty to offer their view points on on-line teaching practices.

Table 6:
Sample Age Group

		Frequency	*%*
Valid	20-30 Years Old	17	8.0
	30-40 Years Old	77	36.2
	40-50 Years Old	119	55.9
	Total	213	100.0

Also, about one third of the faculty members participating in the survey are from Engineering Technology disciplines and another one third teach English language. Remaining faculty members (35%) teach General Studies, Information Technology, Business Studies and Interior Design courses (Table 7).

Table 7:
Teaching Majors/Areas

		Frequency	*%*
Valid	English	69	32.4
	General Studies - Science and Humanities	32	15.0
	Business	13	6.1
	Information Technology & MIS	29	13.6
	Engineering and Technology	68	31.9
	Interior Design	2	.9
	Total	213	100.0

Instrumentation

Two surveys were used: the Modified Computer Technology Integration Survey (MCTIS) and the Value Survey Module (VSM) (see Table 3). Straub (1989) stated that "researchers should use previously validated instruments wherever possible, being careful not to make significant alterations in the validated instrument without revalidating the instrument content, constructs, and reliability" (p. 161). For this reason, the MCTIS was modified by replacing the word computer with technology in questions 1,3,6,8 and 10 and classroom with online environment in questions 1 and 7 to reflect the research interest of this study from Wang, Ertmer and Newby's (2004) Computer Technology Integration Survey (CTIS). Permission to use the instrument was granted by the second author. The CTIS originally incorporated 21 items and had Cronbach's Alpha coefficients of .94 (pre-survey) and .96 (post-survey). In addition, according to Wang, Ertmer and Newby's (2004) the instrument measured what it was supposed to measure; that is it adequately provided the data it was created to provide, which suggests the instrument incorporated both content and construct validity. However, Wang, Ertmer and Newby's (2004) concluded that 16 of the 21 items were considered valid measures of technology integration self-efficacy. The MCTIS, which incorporated 16 items, was sent to Prof. Ertmer, one of the CTIS authors and a professional researcher on self-efficacy, for approval and validation that the wording change did not affect the instrument reliability (see Appendix F). In addition, the response statements for the MCTIS were measured for reliability and validity statistics using SPSS. Cronbach's alpha measures equaled 0.97 for the statements. This implies reliability, validity and internal consistency of the statements and can be stated as highly reliable.

Table 8:
Reliability of the MCTIS 16 Self-Efficacy statements

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.979	.979	16

The VSM 2013, which includes 31 items, was used with no changes to measure Hofstede's cultural dimensions. The VSM 2013 is an updated and extended version of the three earlier versions of the survey, VSM 08, VSM 94 and VSM 82. However, only 16 questions of the survey measure the four cultural dimensions. The instrument had a Cronbach's Alpha measures for: Power Distance Index= .842, Individualism Index = .770, Masculinity Index = .760 and Uncertainty Avoidance Index = .715, thus the instrument was deemed reliable.

An additional reliability analysis of the 16 VSM cultural dimensions was conducted using SPSS. The Cronbach's alpha measures equaled 0.872 for the 16 statements. This implies reliability, validity and internal consistency of the statements and can be stated as reliable.

Table 9:
Reliability of Scales of all 16 VSM (Cultural) statements

Cronbach's Alpha	*Cronbach's Alpha Based on Standardized Items*	*N of Items*
.872	.853	16

Table 10: Instruments used

Instrument	*Name*	*Authors*	*Modified Instrument*
1	Computer Technology Integration Survey	Wang, Ertmer and Newby (2004)	Modified Computer Technology Integration Survey (MCTIS)
2	Values Survey Module	Hofstede, Hofstede & Minkov (2013).	(VSM)

Hofstede and Minkov (2013) indicated in the VSM 2013 manual that each dimension must be calculated as a liner combination of the four questions answers that represent each dimension. There is a formula to calculate each cultural dimension (see Table 11).

Table 11:

Cultural Dimensions Calculation Formulas

Cultural Dimension	*Formula*
Power Distance Index Formula	PDI = 35(m19 – m14) + 25(m35 – m38) (m19 is the mean score for question 19, etc.) (C(pd) is a constant added to norm the index to a 0 to 100 scale.)
Individualism Index Formula	IDV = 35(m16 – m13) + 35(m21 – m18) (m16 is the mean score for question 16, etc.) (C(ic) is a constant added to norm the index to a 0 to 100 scale.)
Masculinity Index Formula	MAS = 35(m17 – m15) + 35(m20 – m22) (m17 is the mean score for question 17, etc.) (C(mf) is a constant added to norm the index to a 0 to 100 scale.)
Uncertainty Avoidance Index Formula	UAI = 40(m32 – m28) + 25(m36 – m39) (m32 is the mean score for question 32, etc.) (C(ua) is a constant added to norm the index to a 0 to 100 scale.)

Validity

This study was designed to identify the RCJCI faculty online teaching self-efficacy and how it might be influenced by the faculty cultural dimensions. The study incorporated the following variables: faculty online teaching self-efficacy, Power distance, Uncertainty Avoidance, Masculinity and Collectivism. To ensure the validity of the study several steps were taken to limit threats to both external and internal validity. Potential threats to external and internal validity were controlled by applying stratified random sampling (Creswell, 2012). Moreover, the literature in Chapter 2 presented an argument that would control any threats to internal validity. In addition, analyzing data through several statistical procedures eliminated any

threats to internal validity. Content validity was controlled by asking an expert on self-efficacy to review the questions (see Appendix F).

Data Collection

The survey was distributed electronically using the RCJCI email services. The email included a brief introduction and a link to the survey on Google Forms. The email was sent to every person who had faculty status in the RCJCI sector on February 20th, 2014 and participants had one month to respond. Two weeks after the initial email was sent, a reminder email was sent to remind the faculty to take the survey if they had not which generated a surge in the number of participants (Figure 5). The survey was turned off on March 20th, 2014.

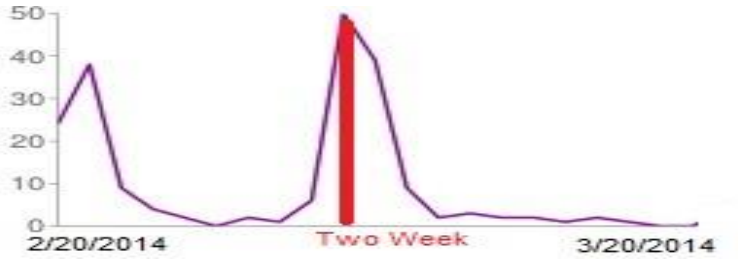

Figure 5: Number of daily survey responses

A third email was sent to thank the faculty for their participation on March 25th, 2014. The MCTIS survey was based on a Likert-scale with responses that range from 1-5 with 1 being strongly disagree and 5 being strongly agree. While the VSM included both Likert scale and multiple choice questions.

Data Analysis

Data analysis incorporated both descriptive data analysis and correlational analysis, which was conducted using NIU's cloud SPSS system and Microsoft Excel. To ensure the validity of the descriptive data, SPSS was utilized to calculate the mean, Kurtosis, Skewness and

standard deviation. Conducting such statistical analysis would identify inconsistencies that might occur because of incorrect or missing data. In addition, the analysis helped in assessing normality.

Hierarchical regressions analysis was applied to determine associations, relative contributions and the extent of the relationship between cultural dimensions and the faculty online teaching self-efficacy using 0.05 significance level for all tests of statistical significance. In addition, hierarchical regressions analysis was used to examine whether faculty online teaching self-efficacy scores might be predicted by the four cultural dimensions. Tables were utilized to display scores and present the analysis results. Looking at the relationship across the variables might strengthen internal validity.

Summary

This study aimed to identify the RCJCI faculty online teaching self-efficacy and the influence of the faculty cultural dimensions. This chapter presented the methodology that was used to investigate the research questions presented in the study. The research followed a descriptive correlational research design that included a population of N = 533 faculty members. Descriptive data on the population and sample was presented. Data was collected using two survey instruments, which provided descriptive data on the faculty self-efficacy and cultural dimensions. The instruments were discussed and the formulas for calculation of responses were presented. Moreover, the cultural dimensions data was analyzed using regression analysis methods. The coming Chapter's will present the findings and results of the surveys.

CHAPTER 4

RESULTS

Since participants demographic statistics were discussed in the previous chapter, this chapter will include sections on descriptive data analysis, self-efficacy response analysis, and analysis of cultural dimensions data; and finally analysis of relationship between self-efficacy and cultural dimensions of four national cultural groups.

A statistical analysis was conducted to indicate whether age and teaching experience had any influence on the faculty self-efficacy and the findings indicated that neither age nor teaching experience had any statistical significant influence on the faculty self-efficacy; $F(2, 212) = 0.18$, $p = .84$ and $F(2, 212) = 0.39$, $p = .68$, respectively. Additionally, the mean score for all the variables was calculated and used to conduct the analyses.

Descriptive analysis included data analysis of sixteen self-efficacy statements (frequency tables and per cent agree and strongly agree with the statements) and descriptive data analysis (frequency tables) of four cultural dimension variables measured in sixteen statements. Furthermore, analysis of responses on sixteen self-efficacy statements for reliability of statements, mean values, ability to utilize technology in instructions and factor analysis of the statements will be presented.

In addition, an analysis of the relationships between cultural dimension variables of four culture groups and their online teaching self-efficacy for the four national-cultural groups of faculty members, which include respondents of Saudi, Jordanian, Indian and British nationalities will be offered. Analysis of relationships relied on multiple regression analysis using 0.05 significance level for all tests of statistical significance with the four dimensions as predictors, countries (coded as dummy variable) as predictors, and Self-efficacy as dependent variable (DV). Hierarchical Multiple regression with the four countries (coded as dummy variable) as predictors (block 1), and the four culture dimensions as predictors (block 2), with transformed Self-efficacy as DV. Followed by a chapter summary.

Descriptive Analysis of Self-Efficacy Statements

In order to address research Q1 the faculty responses to the MCTIS survey statements was analyzed (see Table 12).

Table 12:
Faculty Online Teaching Self-efficacy Statements

	N	*SD*	*D*	*U*	*A*	*SA*
1. I feel confident that I understand technology capabilities well enough to maximize them in the online environment.	213	9(4.2%)	15(7.0%)	26(12.2)	73(34.3%)	90(42.3%)
2. I feel confident that I have the skills necessary to use technology for instruction.	213	10(4.7%)	11(5.2%)	12(5.6%)	69(32.4%)	111(52.1%)

(Continued on following page)

Table 12. Continued

3. I feel confident that I can successfully teach relevant subject content through appropriate use of technology.	213	13(6.1%)	12(5.6%)	9(4.2%)	67(31.5%)	112(52.6%)
4. I feel confident in my ability to evaluate software for teaching and learning	213	9(4.2%)	18(8.5%)	29(13.6%)	85(39.9%)	72(33.8%)
5. I feel confident that I can use correct technology terminology when directing students' technology use	213	10(4.7%)	14(6.6%)	22(10.3%)	81(38.0%)	86(40.4%)
6. I feel confident I can help students when they have difficulty with technology.	213	10(4.7%)	18(8.5%)	26(12.2%)	74(34.7%)	85(39.9%)
7. I feel confident I can effectively monitor students' technology use for project development in the online environment.	213	14(6.6%)	21(9.9%)	36(16.9%)	88(41.3%)	54(25.4%)
8. I feel confident that I can motivate my students to participate in technology-based projects.	213	11(5.4%)	13(6.1%)	19(8.9%)	85(39.9%)	85(39.9%)
9. I feel confident I can mentor students in appropriate uses of technology.	213	12(5.6%)	10(4.7%)	33(15.5%)	81(38.0%)	77(36.2%)
10. I feel confident I can consistently use educational technology in effective ways.	213	10(4.7%)	14(6.6%)	17(8.0%)	83(39.0%)	89(41.8%)

(Continued on following page)

Table 12. Continued

11. I feel confident I can provide individual feedback to students during technology use.	213	12(5.6%)	12(5.6%)	27(12.7%)	85(39.9%)	77(36.2%)
12. I feel confident I can regularly incorporate technology into my lessons, when appropriate to student learning.	213	12(5.6%)	10(4.7%)	19(8.9%)	72(33.8%)	100(46.9%)
13. I feel confident about selecting appropriate technology for instruction based on curriculum standards.	213	13(6.1%)	11(5.2%)	27(12.7%)	79(37.1%)	83(39.0%)
14. I feel confident about assigning and grading technology-based projects.	213	14(6.6%)	9(4.2%)	31(14.6%)	84(39.4%)	75(35.2%)
15. I feel confident about using technology resources (such as spreadsheets, electronic portfolios, etc.) to collect and analyze data from student tests and products to improve instructional practices.	213	13(6.1%)	17(8.0%)	33(15.5%)	72(33.8%)	78(36.6%)
16. I feel confident I can be responsive to students' needs during technology use.	213	12(5.6%)	14(6.6%)	31(14.6%)	78(36.6%)	78(36.6%)

The sixteen self-efficacy statements indicated that over 78% of the faculty members agree or strongly agree with all the sixteen self-efficacy statements reflecting their confidence in online use of technology. Variation of support for the statements are between 66 % and 84%, but mostly above 70%. Between 10 to 16% of the respondents disagree or strongly disagree with the statements. RCJCI faculty online teaching Self-Efficacy statements received overwhelming support from majority of the participating faculty members.

Description of Independent Variables

Power Distance (high vs. low)

The respondents were asked to think of an ideal job (disregarding present job) and consider responding to statements as how important it would be to him in an ideal situation. Tables 13 to 16 are responses of values on Power Distance related statements.

Table 13:
Power Distance # 1 (2. have a boss (direct superior) you can respect)

		Frequency	*%*
Valid	Of Utmost Importance	90	42.3
	Very Important	58	27.2
	Of Moderate Importance	30	14.1
	Of Little Importance	22	10.3
	Of Very Little or No Importance	13	6.1
	Total	213	100.0

Power distance value statement number one has asked to rate ‘a boss or direct supervisor whom he can respect’ in an ideal situation. Able to respect a direct supervisor or boss is considered very important or of utmost importance by 69.5% of respondents; 14.1% feel this is of moderate importance; and 16.4% feel this of little or very little or of no importance to them. So over two thirds of the respondents consider the proposition of respecting their boss or direct supervisor of very or utmost importance matter in job situation.

Table 14:
*Power Distance #2 (**7**. be consulted by your boss in decisions involving your work)*

		Frequency	*%*
Valid	Of Utmost Importance	76	35.7
	Very Important	79	37.1
	Of Moderate Importance	27	12.7
	Of Little Importance	22	10.3
	Of Very Little or No Importance	9	4.2
	Total	213	100.0

Power distance value statement number two has asked to rate statement: 'be consulted by your boss in decisions involving your work' in an ideal situation. An environment of regular consultation by supervisor in decisions involving work or work related tasks is considered very important or of utmost importance by 72.8% of the respondents; 12.7% considered this to be of moderate importance and 14.5% considered 'consultation with bosses is of little or very little importance in their work situation. So, more than two thirds of the respondents approve this to be of very and utmost importance in their work environment.

Table 15:
Power Distance # 3 (20. All in all, how would you describe your state of health these days?)

		Frequency	*%*
Valid	Very Good	99	46.5
	Good	90	42.3
	Fair	21	9.9
	Poor	2	.9
	Very Poor	1	.5
	Total	213	100.0

Power distance value statement number three has asked to rate statement: 'all in all, how would you describe your state of health these days?' related to an ideal work situation. Most of the respondents (88.8%) considered the state of their health in their work environment to be good and very good; 9.9% considered it to be of fair state of health and only 1.4% considered it to be poor or very poor. So nearly 90% of the respondents consider their state of health to be good or very good when it relates to their work environment.

Table 16:
Power Distance #4. (23. How often, in your experience, are subordinates afraid to contradict their boss (or students their teacher?)

		Frequency	*%*
Valid	Never	19	8.9
	Seldom	27	12.7
	Sometimes	90	42.3
	Usually	62	29.1
	Always	15	7.0
	Total	213	100.0

Power distance value statement number four has asked to rate statement: 'how often, in your experience, are subordinates afraid to contradict their boss (or students their teacher)? related to an ideal work situation. Majority of the respondents (42.3%) feel that sometimes this fear prevails in work situation. About 36.1% of the respondents feel that subordinates or students are indeed afraid to contradict with boss or teacher in an ideal work situation. Only 21.6% of the respondents feel that fear of contradicting with boss or teacher seldom or never happens. So subordinates or students fearing boss or teacher to contradict with issues and viewpoints are common (36.1%) or fairly common (42.3%) in day to day work or classroom or lab situations. This suggests that there is a considerable power distance between teacher and student on this issue.

Individualism vs. Collectivism

The respondents were asked to think of an ideal job (disregarding present job) and consider responding to statements as how important it would be to him in an ideal situation. Tables 17 to 20 are responses of values on Collectivism issues.

Table 17:
Collectivism #1 (1. Have sufficient time for your personal or home life)

		Frequency	*%*
Valid	Of Utmost Importance	84	39.4
	Very Important	65	30.5
	Of Moderate Importance	37	17.4
	Of Little Importance	15	7.0
	Of Very Little or No Importance	12	5.6
	Total	213	100.0

Collectivism value statement number one has asked to rate ‘have sufficient time for your personal or home life’ in an ideal situation. About 70% of the respondents feel ‘to have sufficient time for personal and home life’ away from work and spending time with family members is very important or have utmost importance to their lives. Only 17% think this to be of moderate importance; while about 13% respondents think this to be of very little or little importance to them. So two thirds of the respondents feel that having sufficient time with family members or family collectivism is very important or very highly important to them.

Table 18:
Collectivism # 2 (4. Have security of employment)

		Frequency	*%*
Valid	Of Utmost Importance	106	49.8
	Very Important	49	23.0
	Of Moderate Importance	22	10.3
	Of Little Importance	23	10.8
	Of Very Little or No Importance	13	6.1
	Total	213	100.0

Collectivism value statement number two has asked to rate statement: ‘have security of employment’ in an ideal situation. About 73% respondents feel that ‘to have a secure employment or job tenure’ is of utmost or very important to them. A little over one fourth respondents (27.2%) feel this issue to be moderate or little or very little significance to them. Nevertheless, seven out of every ten employee feel job security to be highly important to them.

Table 19:
Collectivism # 3 (6. Do work that is interesting)

		Frequency	*%*
Valid	Of Utmost Importance	93	43.7
	Very Important	66	31.0
	Of Moderate Importance	18	8.5
	Of Little Importance	21	9.9
	Of Very Little or No Importance	15	7.0
	Total	213	100.0

Collectivism value statement number three has asked to rate statement: 'do work that is interesting' in an ideal situation. About 75 % respondents feel that 'to do work that is interesting' is of utmost or very important to them. About one fourth of the respondents (25.4%) feel this issue to be moderate or little or very little significance to them. Nevertheless, nearly eight out of every ten employee feel having personal interest in work they do are indeed highly important to them.

Table 20:
Collectivism # 4 (9. Have a job respected by your family and friends)

		Frequency	*%*
Valid	Of Utmost Importance	86	40.4
	Very Important	61	28.6
	Of Moderate Importance	19	8.9
	Of Little Importance	24	11.3
	Of Very Little or No Importance	23	10.8
	Total	213	100.0

Collectivism value statement number four has asked to rate statement: 'have a job respected by your family and friends' in an ideal situation. About 69% respondents feel that 'have a job respected by your family and friends' is of utmost or very important to them. About one third of the respondents (31%) feel this issue to be moderate or little or very little significance to them. Nevertheless, nearly seven out of every ten employee feel having a job that can draw respect or considered to be respectful work family and friends are indeed highly important to them.

Masculinity vs. Femininity

The respondents were asked to think of an ideal job (disregarding present job) and consider responding to statements as how important it would be to him in an ideal situation. Tables 21 to 24 are responses of values on Masculinity issues.

Table 21:
Masculinity #1 (3. Get recognition for good performance)

		Frequency	*%*
Valid	Of Utmost Importance	91	42.7
	Very Important	65	30.5
	Of Moderate Importance	26	12.2
	Of Little Importance	23	10.8
	Of Very Little or No Importance	8	3.8
	Total	213	100.0

Masculinity value statement number one has asked to rate 'get recognition for good performance' in an ideal situation. About 73% of the respondents feel that 'to get recognition for good performance' is very important or have utmost importance to their lives. About 27% think this to be of moderate importance; while about 13% respondents think this to be of very

little or little importance to them. So seven out of every ten respondents feel that being recognized for good performance is very important or very highly important to them.

Table22: Masculinity # 2 (5. Have pleasant people to work with)

		Frequency	*%*
Valid	Of Utmost Importance	87	40.8
	Very Important	65	30.5
	Of Moderate Importance	22	10.3
	Of Little Importance	22	10.3
	Of Very Little or No Importance	17	8.0
	Total	213	100.0

Masculinity value statement number two has asked to rate 'have pleasant people to work with' in an ideal situation. About 71% of the respondents feel that 'have pleasant people to work with' is very important or have utmost importance to their lives. About 28% think this to be of moderate importance; while about 13% respondents think this to be of very little or little importance to them. So seven out of every ten respondent's feel that 'have pleasant people to work with' is very important or very highly important to them.

Table 23: Masculinity # 3 (8. Live in a desirable area)

		Frequency	*%*
Valid	Of Utmost Importance	77	36.2
	Very Important	77	36.2
	Of Moderate Importance	21	9.9
	Of Little Importance	26	12.2
	Of Very Little or No Importance	12	5.6
	Total	213	100.0

Masculinity value statement number three has asked to rate statement: 'living in a desirable area' in an ideal situation. About 72% respondents feel that 'living in a desirable area ' is of utmost or very important to them. A little over one fourth of the respondents (28.0%) feel this issue to be moderate or little or very little significance to them. Nevertheless, about seven out of every ten employee feel living in a desirable area is indeed highly important to them.

Table 24:
Masculinity # 4 (10. Have chances for promotion)

		Frequency	*%*
Valid	Of Utmost Importance	95	44.6
	Very Important	53	24.9
	Of Moderate Importance	34	16.0
	Of Little Importance	15	7.0
	Of Very Little or No Importance	16	7.5
	Total	213	100.0

Masculinity value statement number four has asked to rate statement: 'have chances for promotion' in an ideal situation. About 69.5% respondents feel that 'having chances for promotion' on the job is of utmost or very important to them. About one third of the respondents (31%) feel this issue to be moderate or little or very little significance to them. Nevertheless, nearly seven out of every ten employee feel that chances or opportunities to get promoted at the work place is indeed highly important to them.

Uncertainty Avoidance (Strong vs. Weak)

The respondents were asked to think of an ideal job (disregarding present job) and consider responding to statements as how important it would be to him in an ideal situation.

Tables 25 to 28 are responses of values on Uncertainty Avoidance (Strong vs. Weak) issues.

Table 25:
Uncertainty Avoidance #1 (15. If there is something expensive you really want to buy but you do not have enough money, what do you do?)

		Frequency	*%*
Valid	Always Save Before Buying	94	44.1
	Usually Save First	69	32.4
	Sometimes Save and Sometimes Borrow to Buy	38	17.8
	Usually Borrow and Pay Off Later	6	2.8
	Always Buy Now and Pay Off Later	6	2.8
	Total	213	100.0

Uncertainty avoidance value statement number one has asked to rate 'if there is something expensive you really want to buy but you do not have enough money, what you do?' in an ideal situation. About 76% of the respondents feel the statement on spending habits based on saved money rather borrowed funds, is usual or always the case in their lives. About 18% think they would sometime save and also may borrow in another time; while about 5.6 % respondents think they would prefer borrowing to buy an expensive goods. So about eight out of every ten respondents feel that they would rather save or always save to consider buying an expensive goods.

Table 26:
Uncertainty Avoidance # 2 (18. Are you the same person at work (or at school if you are a student) and at home?)

		Frequency	*%*
Valid	Quite the Same	53	24.9
	Mostly the Same	112	52.6
	Don't Know	21	9.9
	Mostly Different	19	8.9
	Quiet Different	8	3.8
	Total	213	100.0

Uncertainty Avoidance value statement number two has asked to rate 'are you the same person at work (or at school if you are a student) and at home?' in an ideal situation. About 77.5% of the respondents feel the statement of being the same person at work and at home, is quite or mostly the case in their lives. About 10% respondents do not know their position on this issue clearly; while about 12.7 % respondents think they are mostly different or quite different persons between their work place and at home.

Table 27:
Uncertainty Avoidance # 3 (21. How important is religion in your life?)

		Frequency	*%*
Valid	Of Utmost Importance	140	65.7
	Very Important	39	18.3
	Of Moderate Importance	25	11.7
	Of Little Importance	7	3.3
	Of Very Little or No Importance	2	.9
	Total	213	100.0

Uncertainty avoidance value statement number three has asked to rate statement: 'How important is religion in your life?' in an ideal situation. About 84.0% of the respondents feel the statement of importance of religion in their lives, is of utmost importance or very important to them. About 12% respondents think this of moderate importance to them, whereas about 4.2 % respondents think religion is of little or less importance to them. So, more than eight out of every ten respondents feel that religious values and morality based on religious beliefs occupy very important place in their lives.

Table 28:
Uncertainty Avoidance # 4 (24. One can be a good manager without having a precise answer to every question that a subordinate may raise about his or her work)

		Frequency	*%*
Valid	Strongly Agree	36	16.9
	Agree	68	31.9
	Undecided	45	21.1
	Disagree	41	19.2
	Strongly Disagree	23	10.8
	Total	213	100.0

Uncertainty avoidance value statement number four has asked to rate statement: 'One can be a good manager without having a precise answer to every question that a subordinate may raise about his or her work' in an ideal situation. About 59.0% of the respondents agree or strongly agree with the statement that a good manager need not be precise to every single question about subordinates work. One fifth of the respondents are neutral about this statement. About 30% of the respondents disagree or strongly disagree with the statement. So nearly six out of every ten respondents feel that a good manager can perform his role by giving at least a broad answer, rather always a precise response to every job related question of subordinates.

Online Teaching Self-Efficacy Data Analysis

Research Question 1:

What is the online teaching self-efficacy for faculty?

Table 29:
Online Teaching Self-Efficacy (Confidence in self-ability to utilize technology for teaching online) (N= 213)

	N	*Mean*	*Std. Deviation*	*Variance*	*Kurtosis*	
	Statistic	*Statistic*	*Statistic*	*Statistic*	*Statistic*	*Std. Error*
1. I feel confident that I understand technology capabilities well enough to maximize them in the online environment.	213	4.0329	1.10054	1.211	.682	.332
2. I feel confident that I have the skills necessary to use technology for instruction.	213	4.2207	1.07858	1.163	2.017	.332
3. I feel confident that I can successfully teach relevant subject content through appropriate use of technology.	213	4.1878	1.14613	1.314	1.693	.332
4. I feel confident in my ability to evaluate software for teaching and learning	213	3.9061	1.09053	1.189	.395	.332
5. I feel confident that I can use correct technology terminology when directing students' technology use	213	4.0282	1.09422	1.197	.948	.332
6. I feel confident I can help students when they have difficulty with technology.	213	3.9671	1.13431	1.287	.369	.332

(Continued on following page)

Table. 29. Continued

7. I feel confident I can effectively monitor students' technology use for project development in the online environment.	213	3.6901	1.14832	1.319	-.050	.332
8. I feel confident that I can motivate my students to participate in technology-based projects.	213	4.0329	1.09624	1.202	1.153	.332
9. I feel confident I can mentor students in appropriate uses of technology.	213	3.9437	1.10172	1.214	.797	.332
10. I feel confident I can consistently use educational technology in effective ways.	213	4.0657	1.08827	1.184	1.205	.332
11. I feel confident I can provide individual feedback to students during technology use.	213	3.9531	1.10644	1.224	.849	.332
12. I feel confident I can regularly incorporate technology into my lessons, when appropriate to student learning.	213	4.11737	1.116061	1.246	1.413	.332
13. I feel confident about selecting appropriate technology for instruction based on curriculum standards.	213	3.9765	1.13038	1.278	.833	.332
14. I feel confident about assigning and grading technology-based projects.	213	3.9249	1.12182	1.258	.851	.332

(Continued on following page)

Table. 29. Continued

15. I feel confident about using technology resources (such as spreadsheets, electronic portfolios, etc.) to collect and analyze data from student tests and products to improve instructional practices.	213	3.8685	1.17425	1.379	.107	.332
16. I feel confident I can be responsive to students' needs during technology use.	213	3.9202	1.13196	1.281	.478	.332

The tables have shown sixteen self -efficacy statements and descriptive statistics on the statements. The descriptive statistics include: mean values, standard deviation, variance, kurtosis and standard error of kurtosis. All these statistics were taken from SPSS output for the data.

So on an average all the statements received 'agree' level support from the sample (213) respondents. For statement numbers: 1,2,3,5,8,10 and 12 the respondents feel very strongly confident for their self-efficacy to using technology in online teaching. For the remaining statements numbers: 4,6,7,9,11,13,14,15 and 16 the respondents feel 'strong' in their confidence level to using technology in online teaching.

Looking at distribution pattern of data (Kurtosis) statements numbers 2, 3, 8, 10 and 12, there are high level of concentration or peak pattern of distribution indicating higher level of confidence for the statements. Deviation of responses from the mean (standard deviation) also show that they not very highly spread out or the responses are not highly different from each other.

The perceived factors (or statements) of self-efficacy of online teaching among the faculty members of various disciplines and nationalities of the three higher educational institutions of the Royal Commission Jubail are consistent and indeed they feel 'strong or very strong' in their understanding and use of technology for instructions in an online environment..

Table 29 of response pattern demonstrate that degree of confidence in utilizing technology in teaching instructions is strong (56%) and very strong (44%). This means that the RCJCI faculty have high self-efficacy towards online teaching.

Analysis of Relationship between Cultural Dimension and Self-Efficacy

Research Question 2:

2. Does culture play a role in influencing faculty online teaching self-efficacy?

Descriptive statistics on the four cultural dimensions was presented as part of the descriptive data analysis above. The analysis of the relationship between the faculty cultural dimensions and self-efficacy will be presented based on multiple regression analysis. However, Tabachnick & Fidell (2007) indicated that before conducting a regression analysis the following must be accounted for: (a) specifying the dependent and independent variables, (b) sample size requirements, and (c) incorporating nonmetric data with dummy variables.

a. Specifying the dependent and independent variables

In this study the dependent variable is Self-efficacy (DV) and the independent variables are country (four countries, indicated by three dummy-coded variables) Individualism, Power Distance, Masculinity, and Uncertainty Avoidance.

b. Sample size requirements

The data set has 140 participants and 8 variables for a ratio of 17.5 to 1 which is well in the range of the requirement that we have 15-20 participants per independent variable.

C. Incorporating nonmetric data with dummy variables

Dummy variables are nonmetric variables that are used in regression analysis to represent groups of a sample. In this study three dummy variables were created dummy_Jordan, dummy_India and dummy_UK. Saudi Arabia served as the reference category. In each dummy variable a person was given a value of 0 if they are in the specified country and a value of 1 if they are in another country.

Meeting the requirements indicated by Tabachnick & Fidell (2007) the following sections will present the regression analysis's that were conducted to highlight the relationship between the RCJCI faculty online teaching self-efficacy and their cultural dimensions.

Multiple Regression Analysis

A multiple regression with four dimensions as predictors, countries (coded as dummy variable) as predictors, and Self-efficacy as DV was conducted as a first step of the regression analysis. The analysis indicated that residuals from the regression are strongly skewed (see Figure 6). This violates a key regression assumption (normality of residuals). Therefore, the DV (Self-efficacy) was transformed using a logarithmic transformation of the reversed DV which will be included in the hierarchical multiple regression.

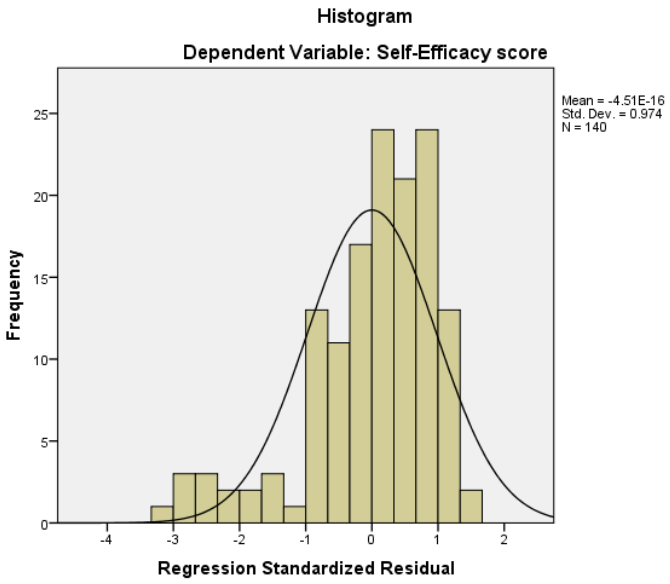

Figure 6: Self-efficacy Regression Standardized Residual

Hierarchical Multiple Regression

A hierarchical multiple regression with the four countries (coded as dummy variables) as predictors (block 1), and four culture dimensions as predictors (block 2), with transformed_Self-efficacy as DV was employed to investigate research question 2. As a preliminary analysis, it was important to ensure the normality of residuals and it was found that the Residuals are much closer to normal, normality of residuals regression assumption is met (see Figure 7). Moreover, the scatterplot (Figure 8) indicated that the residuals appear to be homoscedastic, meeting this regression assumption.

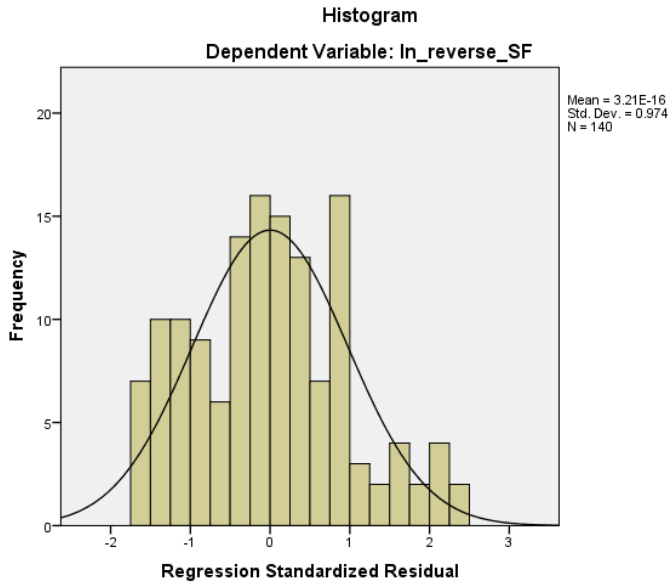

Figure 7: Normality of Regression Residuals

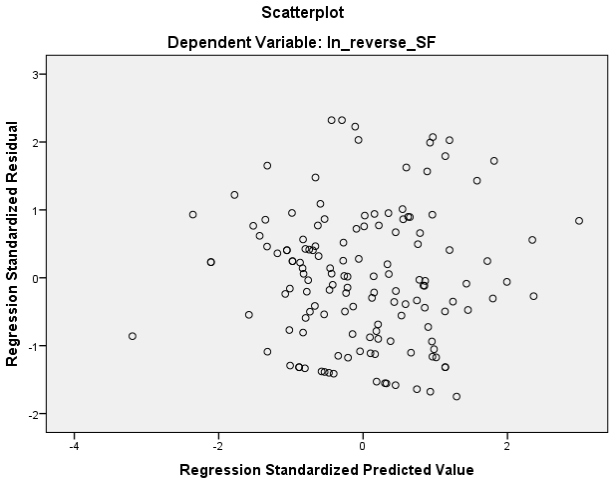

Figure 8: Predicted value of Regression Residuals

Table 30: Hierarchical Multiple Regression Analysis Model Summary

Model	*R*	*R2*	*R2 adj*	*Std. Error of the Estimate*	*Change Statistics*				
					R Square Change	*F Change*	*df1*	*df2*	*Sig. F Change*
1	.086(a)	.007	-.014	.42913	.007	.339	3	136	.797
2	.199(b)	.040	-.011	.42845	.032	1.107	4	132	.356

a Predictors: (Constant), dummy_UK, dummy_India, dummy_Jordan
b Predictors: (Constant), dummy_UK, dummy_India, dummy_Jordan, Individualism, Power Distance, Masculinity, Uncertainty Avoidance
c Dependent Variable: ln_reverse_SF

The model summary (Table 30) indicated that R-squared change is .032, so 3.2% of the variability in self-efficacy can be explained by the four culture predictors, when controlling for differences among countries which is small, and not statistically significant, $F(4, 132) = 1.107$, $p = .356$. . Additionally, as Table 28 indicates, the combined set of predictors (culture dimensions and countries) do not significantly predict Self-efficacy; F (7, 132) = 0.78, p = .606. Finally, there was no significant difference in the mean Self-efficacy levels among the four countries; $F(3, 136) = 0.339$, $p = .797$.

Table 31: Hierarchical Multiple Regression Analysis ANOVA

Model		*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
1	Regression	.187	3	.062	.339	.797(a)
	Residual	25.045	136	.184		
	Total	25.232	139			
2	Regression	1.001	7	.143	.779	.606(b)
	Residual	24.231	132	.184		
	Total	25.232	139			

a Predictors: (Constant), dummy_UK, dummy_India, dummy_Jordan
b Predictors: (Constant), dummy_UK, dummy_India, dummy_Jordan, Individualism, Power Distance, Masculinity, Uncertainty Avoidance
c Dependent Variable: ln_reverse_SF

Moreover, Table 31 confirms that neither the first model (country dummy variables) nor the second model (dummy variables and four cultural dimensions) predicted scores on Self-efficacy (DV) to a statically significant degree because the *p*-values in both models are above .05.

Looking at the regression coefficients (Table 32), it was found that that, when controlling for other predictors in the model, none of the predictors significantly predicts self-efficacy as all the variables in the second model had a *p*-values > .05.

Table 32: Hierarchical Multiple Regression Analysis Coefficients(a)

		Unstandardized Coefficients		*Standardized Coefficients*			*95% Confidence Interval for B*	
Model		*B*	*Std. Error*	*Beta*	*t*	*Sig.*	*Lower Bound*	*Upper Bound*
1	(Constant)	.608	.052		11.605	.000	.505	.712
	dummy_Jordan	.068	.098	.063	.698	.487	-.125	.262
	dummy_India	.085	.098	.079	.869	.387	-.108	.278
	dummy_UK	.012	.112	.010	.106	.916	-.209	.232
2	(Constant)	.533	.098		5.432	.000	.339	.727
	dummy_Jordan	.044	.105	.041	.424	.672	-.163	.252
	dummy_India	.062	.107	.057	.574	.567	-.151	.274
	dummy_UK	-.025	.116	-.020	-.213	.831	-.254	.205
	Power Distance	.000	.001	-.020	-.222	.825	-.002	.001
	Individualism	.001	.001	.145	1.675	.096	.000	.003
	Masculinity	.000	.001	.041	.462	.645	-.001	.002
	Uncertainty Avoidance	.001	.001	.089	.903	.368	-.001	.002

a Dependent Variable: ln_reverse_SF

To conclude, hierarchical regression was preformed to investigate the ability of culture to predict faculty online teaching self-efficacy, after controlling for countries and cultural dimensions. Preliminary analysis were conducted to ensure the assumptions of normality and homoscedasticity were met. In the first step of the hierarchical multiple regression, three

predictors were entered: dummy UK, dummy Jordan and dummy India. This model was not a statistically significant predictor of self-efficacy F (4,135) = 1.23, p = .300. The second step added the four cultural dimensions to the countries and the model was not a statistically significant predictor of self-efficacy as well F (7, 132) = 0.78, p = .606.

The findings from the hierarchical regression analysis suggested that the faculty culture was not a statistically significant predictor of their online teaching self-efficacy.

Additional Analysis

The findings of the hierarchical regression indicated that there cultural perspectives could not predict the faculty online teaching self-efficacy. For this reason, an additional general linear model regression analysis was conducted to assess whether the effect of the dimensions was different by country.

Table 33: Tests of Between-Subjects Effects

Dependent Variable: ln_reverse_SF					
Source	*Type III Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Corrected Model	3.197[a]	19	.168	.916	.564
Intercept	6.221	1	6.221	33.881	.000
NATION	.178	3	.059	.324	.808
PDI	.053	1	.053	.288	.593
IND	.105	1	.105	.573	.450
MAS	.043	1	.043	.233	.630
UAI	.569	1	.569	3.097	.081
NATION * PDI	.837	3	.279	1.520	.213
NATION * IND	.058	3	.019	.105	.957
NATION * MAS	.434	3	.145	.788	.503
NATION * UAI	.771	3	.257	1.400	.246
Error	22.035	120	.184		
Total	82.500	140			
Corrected Total	25.232	139			

a. R Squared = .127 (Adjusted R Squared = -.012)

The findings indicated that the effect of each of the four dimensions did not differ by country, as indicated by the non-significant ($p > .21$) interaction terms in Table 31. Thus, it is concluded that cultural perspectives do not differentially predict the faculty self-efficacy in different countries.

Summary

The Chapter provided a detailed analysis of the findings of the two research question. A descriptive analysis of the Faculty self-efficacy statements and of the cultural dimensions variables. The findings indicated that the RCJCI faculty had high self-efficacy beliefs toward online education. Most of the respondents perceived ability and confidence to utilize technology in instruction are either very strong (44%) and strong enough (56%) suggesting that faculty have high online teaching Self-Efficacy irrespective of cultural differences among them which provided a positive answer to the first research question.

In an attempt to investigate the second question, a regression analysis was conducted to identify the influence Culture had on the faculty online teaching self-efficacy. The regression analysis included the four cultural groups that alien with Hofstede cultural dimensions requirements of a population with no less than 20 responses. Additionally, a general liner model regression analysis was conducted to assess whether the effect of the dimensions was different by country. The findings indicated that culture did not have a statistically significant influence on the faculty online teaching self-efficacy. Chapter 5 provides an interpretation and discussion on these findings.

CHAPTER 5

DISCUSSION

The purpose of this chapter is to discuss the findings and recommendations based on this research. This chapter includes the following sections: purpose of the study, research questions, discussion, recommendations, limitations, and a chapter summary.

Purpose of the Study

This study was conducted with the purpose of identifying the faculty online teaching self-efficacy as an indicator to their readiness to incorporate technology into their pedagogy to teach online. Moreover, the study investigated the role of culture and how it might influence the faculty online teaching self-efficacy. The role of culture in influencing self-efficacy toward the adoption of online education was generally defined as the relationship between the faculty online teaching self-efficacy and their cultural dimensions. Bandura's self-efficacy and Hofstede's cultural dimensions provided the theoretical framework for this study. The literature review provided a comprehensive overview of self-efficacy, faculty self-efficacy, faculty online teaching, culture and online education, and faculty culture and online education.

Research Questions

This study was conducted to investigate the following research questions:

1. What is the online teaching self-efficacy for faculty?

2. Does culture play a role in influencing faculty online teaching self-efficacy?

Findings

The study was conducted to identify the RCJCI faculty online teaching self-efficacy and how might the faculty self-efficacy be influenced by their national cultural dimensions. A total of 213 participants from 23 countries participated in this study. The participants were older as 56% of them were over forty years old and 37% were 30-40 years old. In addition, 61% of the faculty had more than 10 years teaching experience. Results from the analysis of the sixteen self - efficacy statements and hierarchical regression analyses are presented in this section in order to address research questions 1 and 2.

Research Question 1: What is the Online Teaching Self-Efficacy for Faculty?

The RCJCI faculty online teaching self-efficacy was measured using the Modified Computer Technology Integration Survey (MCTIS) which incorporated sixteen self-efficacy statements based on a Likert-Type scale averaging from “strongly disagree” to “strongly agree”. The analysis of the mean values suggested that all the respondents generally “agree” with the sixteen statements and their degree of confidence in their ability to use technology in online teaching were “agree” (56%) and “strongly agree” (44%). For statements numbers: 1,2,3,5,8,10 and 12 the respondents felt very strongly confident in their self-efficacy to using technology in online teaching. For the remaining statements numbers: 4,6,7,9,11,13,14,15 and 16 the respondents felt strong in their confidence level in using technology in online teaching. Based on the analysis it was concluded that the RCJCI faculty had high self-efficacy towards online teaching. Thus, the faculty was found to have the confidence to integrate technology and

incorporate online teaching into their pedagogy. This finding might not suggest that the faculty are ready to implement online teaching pedagogies. Further, having the confidence to venture into online education does not mean the faculty should start teaching online, however it suggests that they might be ready to learn how to transform their face-to-face materials and teaching styles into an online environment.

Research Question 2: Does Culture Play a Role in Influencing Faculty Online Teaching Self-Efficacy?

The second research question investigated the influence of Hofstede's cultural dimensions (power distance, collectivism, uncertainty avoidance, and masculinity) on the RCJCI faculty online teaching self-efficacy using the 2013 Value Survey Module (VSM), which incorporated 31 items. Only 16 of the questions measure the four cultural dimensions. The sample used in the analysis included participants from Saudi Arabia (67), Jorden (27), India (27) and United Kingdom (19) because these nationalities met Hofstede's sample size requirement. Hierarchical multiple regression using 0.05 significance level for all tests of statistical significance was preformed to investigate the ability of culture to predict faculty online teaching self-efficacy, after controlling for countries (model 1) and cultural dimensions (model 2). The regression findings indicated that none of the four cultural dimensions for the four cultural groups predicted the faculty online teaching self-efficacy to a statically significant level in the selected sample. An additional general liner model regression analysis (Tests of Between-Subjects Effects) was conducted to assess whether the effect of the dimensions differed by country, which indicated that the faculty self-efficacy was not predicted by the cultural

dimensions based on country. Thus, culture based on Hofstede's cultural dimensions did not play a significant role in influencing the RCJCI faculty online self-efficacy.

Discussion

This section will discuss the themes that emerged from the findings of the study. The discussion includes two main themes: online teaching self-efficacy and cultural dimensions influence on self-efficacy.

Self-efficacy is acknowledged as one of the main predictors of successful technology integration (Al-Dosari, 2012; Aljabre, 2012; Robertson & Al-Zahrani, 2012; Yarbrough, Morgan and Vorhies, 2011; Zouhair, 2012). For this reason, this study was conducted to indicate the faculty online teaching self-efficacy. Faculty online teaching self-efficacy was defined as the faculty confidence in their ability to effectively utilize technology to deliver their curriculum and instruction in an online learning environment.

Based on the findings of the study, it was concluded that the RCJCI faculty members have high self-efficacy towards online education and the integration of technology in to their pedagogy. The data analysis indicated that the faculty had strong to very strong confidence level in their ability to utilize technology tools to deliver online learning materials. This finding predicted that the faculty would be willing and able to succeed in delivering online learning environments. This aligns with the findings of several studies that the intention to integrate technology is best indicated by self-efficacy beliefs; teachers who have high levels of self-efficacy to teach using technology are more enthusiastic and spend more time on technology tasks than those with low levels of self-efficacy (Ertmer et al. 2003; Wang et al. 2004; Anderson

and Maninger 2007). Although no statistical significance was found between online teaching self-efficacy and age and teaching experience, it was very interesting to find high levels of online teaching self-efficacy from faculty, whom more than half were 40 years of age and older which suggested that age is not a limitation for online teaching and the acceptance of technology. The faculty high self-efficacy levels towards online teaching could be generating from their daily positive use of technology both at work and home. All communications and paper work at the RCJCI is conducted electronically using an intranet communication network. Further, all students related information like grading and absences are computerized and some faculty members post assignments and learning materials on their webpages. Straub, (2009) indicated that the decisions that individuals make about their ability to complete technology tasks have been linked to computer attitudes, which affects future use of the technology. Having positive experiences with the use of technology would positively influence the decision to use a new technology. This positive influence from previous experiences is what Bandura (1997) called "mastery of experience" which might explain the RCJCI high levels of self-efficacy.

The findings of the study suggest that RCJCI faculty have the confidence to integrate technology into their pedagogy and deliver educational content in an online learning environment regardless of their nationality, age, and teaching experience. Tschannen-Moran and Hoy (2001) believe that faculty with high self-efficacy are willing to explore new pedagogy and try new instructional methods. Nevertheless, this does not mean that the faculty are ready to start teaching online. The findings suggest that the faculty had the confidence and the positive attitude to transform their pedagogy from face-to-face to an online environment. For this reason, it is important that the RCJCI management use the faculty confidence in their ability to teach online

and provide the training needed to help them transform their instructional methods to an online environment. The training will provide the knowledge and tools needed to ensure a successful integration of online education into the RCJCI educational system. If the faculty do not get the required training to help them succeed in delivering educational instructions online, they might lose their confidence which will negatively affect their current self-efficacy. Bandura (1997) indicates that mastery experience has a strong influence on the levels of self-efficacy. Efforts must be made to insure that the faculty have the knowledge and tools to have a positive teaching online experience. For the faculty to succeed they will need administrative and technical support. Mitchell (2009) indicated that the introduction of online education in an organization had an impact on the faculty, and administration and required changes in structure and procedures. The change associated with the integration of technology may become a barrier that educational institutions need to overcome (Assareh & Bidokht, 2010; Hanna, 2013; Simonson, Smaldino, Albright & Zvacek, 2012). For this reason, faculty, administrators and staff need to have a clear understanding of the requirements of integration online education into the RCJCI educational system. One of the requirements would include providing support. The administrative and support staff degree of willingness should be measured to identify if they have the knowledge and knowhow to support the faculty in a technological educational environment. Self-efficacy is one way to analyze the staff willingness to support the delivery of online environments. Findings would suggest weather or not the staff would have the confidence and willingness to support online education requirements. Understanding this information would help in providing support to the staff through training or even creating new job titles and positions that require specific skills to support online learning environments.

One of the justifications for identifying the RCJCI faculty online teaching self-efficacy was the need to integrate online education, which would allow the RCJCI to overcome the barriers of time and place and provide more training opportunities to the companies investing in the area. Thus, as an end user it is important to identify the companies' confidence in online learning and training. Self-efficacy instruments would provide an understanding of what the companies think of online education and their confidence towards its use. If the analysis indicated that they had low confidence in online learning environments, educational seminars and lectures on the validity and reliability of online learning environments would be suggested as a way to raise the companies' confidence.

To conclude, the discussion was conducted to identify the RCJCI faculty had high self-efficacy levels towards online teaching. Additionally, it was suggested that self-efficacy can help in identifying administrative and support staff willingness to support online educational environments. Thus, the RCJCI would overcome the organizational barriers that are associated with online education. This study adds to the literature on distance education that faculty from different parts of the world, working in one educational organization, had high confidence in their ability to use technology to teach in online environments regardless of their background, age, teaching experience and education. Furthermore, it is suggested that understanding people willingness to perform any technological task can be analyzed using self-efficacy. The coming section will discuss the influence of cultural perspectives on the RCJCI faculty online teaching self-efficacy.

Bandura (1997) indicated that cultural values and practices affect how self-efficacy beliefs are developed. Thus this discussion will undertake the task of understanding the

relationship between culture and self-efficacy. Hofstede (2010) defined culture as "the collective programming of the mind that distinguishes the members of one group or category of people from others" (p. 6).The definition indicates that culture is the beliefs, values and assumptions that people or groups of people share in a community of practice (educational, business, or virtual) and these beliefs, values and assumptions differentiate between the people or groups within that community of practice.

Culture has been identified as an important aspect that leads to the success of online education integration (Gunawardena et al., 2009; Kumar & Uzkurt, 2010; Mitchell, 2009; Thompson & Ku, 2005; Wang & Reeves, 2007). However, most of the research conducted on the influence of cultural factors on online education only looked at culture within the online learning environment (post-adoption) (Al-Harthi 2005; Kumar & Uzkurt, 2010; Tapanes, Smith, & White, 2009; Thompson & Ku, 2005; Tu, 2001; Wang & Reeves, 2007) rather than how culture might influence the assumptions of online teaching and learning (pre-adoption). In addition, most of the studies investigated the students' cultural perceptions and not the Faculty, and this might be identified as the biggest gap in the literature. For this reason, this study was conducted to explore the influence of the four nationalities' cultural dimensions on their online teaching self-efficacy. Analysis of the findings suggested that the four cultural dimensions for the four nationality groups' could not explain the faculty online teaching self-efficacy levels to a statistically significant degree.

The findings of the study do not align with the findings of several studies that found culture perspectives as indicators of the decision to adapt and integrate technology (Al-Harthi 2005; Kumar & Uzkurt, 2010; Tapanes, Smith, & White, 2009; Thompson & Ku, 2005; Tu,

2001; Wang & Reeves, 2007). However, none of the studies investigated the influence of culture prior to the integration of the technology and only one study (Kumar & Uzkurt, 2010) combined both Hofstede's framework and self-efficacy to find that cultural dimensions influenced self-efficacy. This means that the findings of this study represent the RCJCI faculty pre-adoption of online teaching self-efficacy as high, regardless of cultural perspectives. Fieled (2009) stated "all that a non-significant result tells us is that the effect is not big enough to be anything other than a chance finding – it doesn't tell us that the effect is zero" (p. 58). Thus, the findings cannot confirm that culture did not influence the faculty self-efficacy, but the analyses suggest that the influence was statistically small and non-significant. In other words, Hofstede's cultural dimensions could not explain the faculty online teaching self-efficacy.

Nevertheless, the question to be asked is why were the findings of the regression analysis non-significant? There are many speculations that might have influenced these findings. One speculation might be related to the sample size. Hofstede and Minkov (2013) indicated that an ideal sample size is 50 participants and that a sample less than 20 participants should not be used. The study had only one nationality that met the ideal population requirements, two that were below the ideal size and one that was below the minimum. However, the four cultural groups met the requirement to conducting hierarchical multiple regression analysis. Thus, the sample size might not be the reason for the findings.

Another reason could be Hofstede cultural model which was criticized for having theatrical, methodological and contribution to knowledge weaknesses (Baskerville, 2003; Bhimani et al., 2005; Harrison & McKinnon, 1999; McSweeney, 2002; Viberg & Grönlund, 2013; Joannidés, Wichramasinghe, & Berland, 2012; Dartey-Baah, 2013). Several researchers

have concluded that Hofstede's model statistical measurements do not inform on the specifics of culture and how it impacts practices. The formulas used to calculate the cultural dimensions are vague and are subject to manipulation. For example, to calculate power distance is PDI = 35(m19 – m14) + 25(m35 – m38) + C(pd), where m19 is the mean score for question 19, etc. and C(pd) is a constant added to norm the index to a 0 to 100 scale. Adding a number from 0-100 to represent C(pd) shifted the scores and in some cases from negative to positive. This shift affected the score for each nationality group which in respect affected the outcomes of the statistical analysis. Signorini, Wiesemes, & Murphy (2009) and Dartey-Baah (2013) indicated that comparing culture with nationality in accordance to Hofstede's model is incorrect because it does not take into consideration the changing nature of culture and the emergence of subcultures in the new global context of higher education. This is true as people from the same nationality react differently to the same context.

An additional possibility for the study having non-significant findings could be the participants' psychological state and environment. Cohen, Manion, and Morrison (2007) indicated that the environment in which the questionnaire is completed could influence the quality of their responses. For example, the time of the day, noise distractions, and seriousness given to the completion of the survey could influence the responses to the survey, which would lead to insufficient scores that affect the analysis. The RCJCI faculty had fairly busy class schedules and might not have had sufficient time to take the survey. Consequently, some of the faculty might have taken the survey at a busy time or did not give it much attention especially that the cultural dimension questions were the second part of the survey. That could have led to going through the survey quickly without thinking intellectually of their answers.

Finding an answer to not having statistical significant findings cannot be identified and all the reasons presented above are speculations and not facts. Yet, it should not be concluded that culture does not have an effect on self-efficacy. There is a cultural influence which could not be explained using Hofstede's cultural dimensions.

Hannafin and Hill (2007) stated that, "cultural considerations reflect beliefs about education, the role of individuals in society, traditions in how different disciplines teach and learn, and the prevailing practices of a given community" (p.531). This description of culture provides a better understanding of the concept of culture. One of the contributions of this research is that the integration of technology creates a subculture that is dependent from the national culture.

In conclusion, it was very interesting to find that faculty that come from different parts of the world and from different cultural backgrounds mostly had high self-efficacy levels towards online teaching that did not reflected from their national cultural perspectives. Hofstede's cultural dimensions of national culture might be important, but they are not the only predictor of individuals teaching and learning identities. The findings suggest that technology might have a culture of its own. This means that the use of technology in an educational context creates a subculture that is associated with the technology and not the nationality of the users. Hence, based on the findings, it is assumed that there might be a cultural influence on the faculty self-efficacy towards online teaching which might have generated form the technology itself as it has become part of people daily life. The suggested name for this culture is "Technology Culture". Technology culture would be defined as the outcome of individuals and group interactions in a technology oriented environment.

Recommendations

Advances in technology are motivating higher education institutions to use technology as a core delivery system of educational courses (Hanna, 2013). Online education is a growing global trend that is reaching different societies and cultures. The changing context of learning and the massive advancements in technology are pushing universities to include online education as a core strategy and this is true to the RCJCI (Johnson et al., 2013). Self-efficacy was acknowledged as one of the main predictors of successful technology integration (Al-Dosari, 2012; Aljabre, 2012; Robertson & Al-Zahrani, 2012; Yarbrough, Morgan and Vorhies, 2011; Zouhair, 2012). Thus, this study measured the RCJCI faculty online teaching self-efficacy which was very high. Additionally, culture was identified as an important aspect that influenced the success of online education integration (Gunawardena et al., 2009; Kumar & Uzkurt, 2010; Mitchell, 2009; Thompson & Ku, 2005; Wang & Reeves, 2007). As a result, the study investigated the influence of cultural perspectives on the faculty online teaching self-efficacy which deemed statically not significant. The findings of the study offer the following recommendations:

Before integrating any technology into an educational organization, the faculty self-efficacy towards the technology should be measured as an analysis process. Once the faculty self-efficacy levels are identified, support should be offered to insure the correct integration of the technology which would insure the goals of the technology integration of enhancing learning. This support is provided through both pedagogical and technical training.

Self-efficacy instruments such as the Computer Technology Integration Survey (MCTIS) should be used to identify the people's confidence and willingness to integrate or use technology as a first step analysis. For example, the Computer Technology Integration Survey (MCTIS) could be used to identify any faculty in any educational organization online teaching self-efficacy.

Culture should be measured at the individual level rather than the national level to produce more valuable findings (Signorini, Wiesemes, & Murphy, 2009 and Dartey-Baah, 2013). Culture is a changing context and should not be viewed at a group level because personal characteristics would influence the outcomes of the group. Identifying cultural preferences would help in developing more acceptable learning environments, but might not influence the decision to accept or reject a technological intervention.

A follow up study should be conducted to measure the faculty online teaching self-efficacy after the use of technology in online environments. The data from the follow up study would help in identifying if the faculty confidence changed. If the faculty self-efficacy level was lower, then the RCJCI must investigate the reason behind this change. Was the experience of teaching online negative? If so why? Is the problem human and technical?

Future studies should include administrative and support staff to measure their self-efficacy in providing administrative and technical support. This research would provide data that is needed to prepare the administrative and support staff by providing training. Moreover, the analysis might present the need for new positions that are more related to online learning environments support.

Future studies that use Hofstede's cultural dimensions should consider measuring cultural perspectives on the individual level. There are new instruments that have been created to measure Hofstede cultural dimensions at the individual level. One is the Individual Cultural Values Scale (CVSCALE) (Yoo, Donthu, & Lenartowicz, 2012).

Future studies should investigate what the researcher calls "Technology Culture" and attempt to identify characteristics of this culture. A study on technology cultures might provide a better understanding of cultural perspectives in technology related research. This understanding will create better ways to introduce new technologies.

Future study should be conducted to identify the Royal Commission of Yanbu Colleges and Institutes (RCYCI) faculty online teaching self-efficacy and the relationship between the RCJCI and the RCYCI faculty self-efficacy should be measured to identify the differences between the two and why there are differences. This would help in the overall understanding of the secondary education sector of the Royal Commission as a whole.

Future studies on faculty online teaching self-efficacy should adapt a mixed methods research approach which would clarify inconsistences in the data and provide a brooder understanding of the faculty online teaching self-efficacy. Moreover, this study could measure Hofstede cultural dimensions from a qualitative perspective which would provide a better understanding of the cultural dimensions and how they might influence self-efficacy.

Limitations

The limitations of the study include the following: First, because the study was descriptive and was constrained to the Royal commission of Jubail, a post-secondary educational

sector, the findings of the study cannot be generalized to the population of the Kingdom of Saudi Arabia. Secondly, the research study was voluntary and individuals may choose not to participate. Thirdly, self-report data has an inherent limitation as the participants may give the answers they believe they are expected to give. Fourthly, the study did not consider gender as a variable because the educational system is segregated in Saudi Arabia, and the number of female faculty is too low to provide statistically significant information. Finally, the study only used four of Hofstede's five dimensions because there are no scores on Saudi Arabia in Hofstede's index for the fifth dimension and this dimension indicated to have almost no impact on online communication (Ess, 2011).

Summary

This study was conducted to identify the faculty online teaching self-efficacy prior to the actual use of technology in online environments. The study sought to identify the RCJCI faculty online teaching self-efficacy and explore if culture perspectives influenced the faculty self-efficacy level. The research concluded that the faculty indicated high levels of self-efficacy towards online teaching regardless of their cultural background. It is imperative that organization planning to venture into online environments or integrating a new technology identify the end users self-efficacy towards that technology in an attempt to insure the success of the integration and meet the goals of the technology. Furthermore, self-efficacy instruments could be used to identify levels of confidence and willingness of any group of people targeted to use technology. This analysis suggested that national culture does not account for changes in self-efficacy levels in the selected sample. Thus, it was argued that culture should not be looked at in the national level. There are subcultures that account for people's practices in different contexts and

technology is one of those contexts that create its own culture which has nothing to do with nationality or cultural background that would be called “The Technology Culture”.

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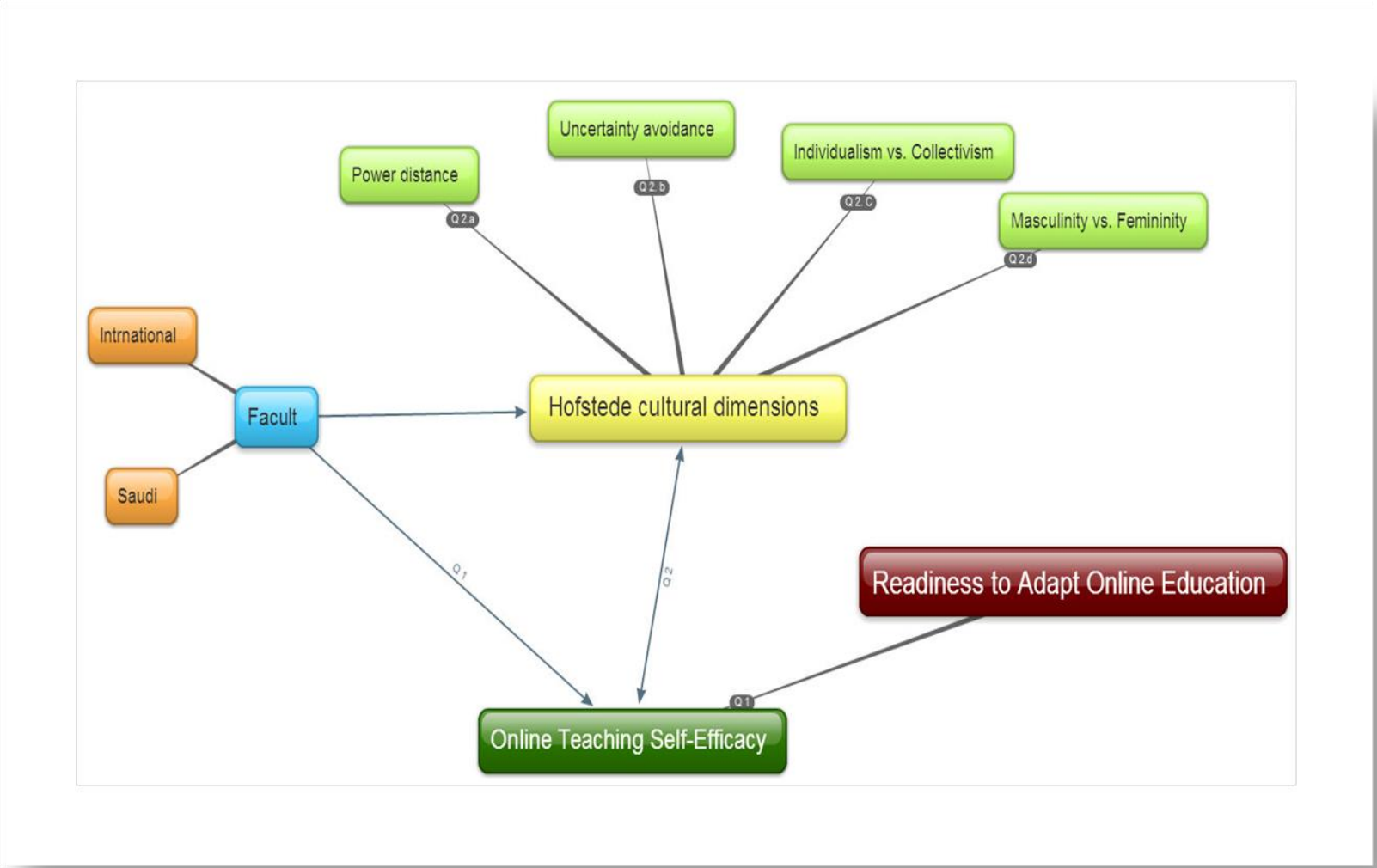
APPENDIX A

RESEARCH DESIGN

Appendix A


Uncertainty avoidance
Power distance
Individualism vs. Collectivism
Masculinity vs. Femininity
Q2.b
Q2.a
Q2.C
Q2.d
Intrnational
Facult
Saudi
Hofstede cultural dimensions
Q1
Q2
Readiness to Adapt Online Education
Q1
Online Teaching Self-Efficacy

APPENDIX B

THESE TABLES WERE PRESENTED IN HOFSTEDE (2011, 2010)
RESEARCH PAPERS

Appendix B

These tables were presented in Hofstede (2011, 2010) research papers.

Ten Differences Between Small- and Large- Power Distance Societies

Small Power Distance	Large Power Distance
Use of power should be legitimate and is subject to criteria of good and evil	Power is a basic fact of society antedating good or evil: its legitimacy is irrelevant
Parents treat children as equals	Parents teach children obedience
Older people are neither respected nor feared	Older people are both respected and feared
Student-centered education	Teacher-centered education
Hierarchy means inequality of roles, established for convenience	Hierarchy means existential inequality
Subordinates expect to be consulted	Subordinates expect to be told what to do
Pluralist governments based on majority vote and changed peacefully	Autocratic governments based on co-optation and changed by revolution
Corruption rare; scandals end political careers	Corruption frequent; scandals are covered up
Income distribution in society rather even	Income distribution in society very uneven
Religions stressing equality of believers	Religions with a hierarchy of priests

Ten Differences Between Weak- and Strong- Uncertainty Avoidance Societies

Weak Uncertainty Avoidance	Strong Uncertainty Avoidance
The uncertainty inherent in life is accepted and each day is taken as it comes	The uncertainty inherent in life is felt as a continuous threat that must be fought
Ease, lower stress, self-control, low anxiety	Higher stress, emotionality, anxiety, neuroticism
Higher scores on subjective health and well-being	Lower scores on subjective health and well-being
Tolerance of deviant persons and ideas: what is different is curious	Intolerance of deviant persons and ideas: what is different is dangerous
Comfortable with ambiguity and chaos	Need for clarity and structure
Teachers may say 'I don't know'	Teachers supposed to have all the answers
Changing jobs no problem	Staying in jobs even if disliked
Dislike of rules - written or unwritten	Emotional need for rules – even if not obeyed
In politics, citizens feel and are seen as competent towards authorities	In politics, citizens feel and are seen as incompetent towards authorities
In religion, philosophy and science: relativism and empiricism	In religion, philosophy and science: belief in ultimate truths and grand theories

Ten Differences Between Collectivist and Individualist Societies

Individualism	Collectivism
Everyone is supposed to take care of him- or herself and his or her immediate family only	People are born into extended families or clans which protect them in exchange for loyalty
"I" – consciousness	"We" –consciousness
Right of privacy	Stress on belonging
Speaking one's mind is healthy	Harmony should always be maintained
Others classified as individuals	Others classified as in-group or out-group
Personal opinion expected: one person one vote	Opinions and votes predetermined by in-group
Transgression of norms leads to guilt feelings	Transgression of norms leads to shame feelings
Languages in which the word "I" is indispensable	Languages in which the word "I" is avoided
Purpose of education is learning how to learn	Purpose of education is learning how to do
Task prevails over relationship	Relationship prevails over task

Ten Differences Between Feminine and Masculine Societies

Femininity	Masculinity
Minimum emotional and social role differentiation between the genders	Maximum emotional and social role differentiation between the genders
Men and women should be modest and caring	Men should be and women may be assertive and ambitious
Balance between family and work	Work prevails over family
Sympathy for the weak	Admiration for the strong
Both fathers and mothers deal with facts and feelings	Fathers deal with facts, mothers with feelings
Both boys and girls may cry but neither should fight	Girls cry, boys don't; boys should fight back, girls shouldn't fight
Mothers decide on number of children	Fathers decide on family size
Many women in elected political positions	Few women in elected political positions
Religion focuses on fellow human beings	Religion focuses on God or gods
Matter-of-fact attitudes about sexuality; sex is a way of relating	Moralistic attitudes about sexuality; sex is a way of performing

APPENDIX C

CONSENT AND FACULTYONLINE TEACHING SELF-EFFICACY SURVEY

Appendix C

Modified Computer Technology Integration Survey (MCTIS)

Participant Informed Consent

I agree to participate in the research project titled "Faculty Online Teaching Self-Efficacy and Cultural Dimensions the Possible Impact on the Adoption of Online Education at the Royal Commission of Jubail in Saudi Arabia." being conducted by Fahad AlShahrani, a graduate student at Northern Illinois University as part of his doctoral dissertation.
I have been informed that the purpose of the study is to examine the relationship between faculty online teaching self-efficacy (their confidence in their ability to utilize technology for instruction in an online environment), and their culture (how might the faculty cultural perspectives influence their online teaching self-efficacy)
I understand that taking the survey will take around 15 minutes.
I understand that if I agree to participate in this study, I will be asked to complete an online questionnaire.
I am aware that my participation is voluntary and may be withdrawn at any time without penalty or prejudice, and that if I have any additional questions concerning this study, I may contact the researcher Fahad AlShahrani at +1-224-535-0003 or Dr. Hayley Mayall, faculty adviser, at +1-815-753-4710.
I understand that if I wish further information regarding my rights as a research subject, I may contact the Office of Research Compliance at Northern Illinois University at (815) 753-8588.

I understand that the intended benefits of this study include understanding the relationship between faculty online teaching self-efficacy, and faculty cultural dimensions in order to identify faculty readiness to adopt online education and contribute to the growing body of knowledge on online education.

I have been informed that breach of confidentiality is a potential risk.

I understand that all information gathered during this study will be kept confidential. The information provided will only be visible to the researcher. This will be done by Google form to collect data in a secure environment. As soon as the data is collected, it will be stored on a secured hard drive and deleted from Google drive. Only the researcher will view data. Once data have been collected and cleaned, data will be permanently deleted.

Data will be used to provide information to answer the research questions and to provide generalizations for the research study. In addition, the data will be aggregated in any reports so that no individual will be identifiable.

I understand that my consent to participate in this project does not constitute a waiver of any legal rights or redress I might have as a result of my participation.

(If you wish to print and keep a copy of this consent form for your records please feel free to do

so). Clicking the “Yes” button below indicates your consent to participate in this survey.

* Required

1. **DO you wish to participate?** *

   Mark only one oval.

   Yes Skip to question 2.

   No

Thank you for taking the time and have a great day

Modified Computer Technology Integration Survey (MCTIS)

2. **What is your nationality?** *

3. **How old are you?** *

   20-30

   30-40

   40-50

   .

4. **What do you teach?**

5. **How long have you been teaching?** *

   0-5 years

   5-10 years

   10-more

To what extent do you agree or disagree with each of the following statements? (please circle one answer in each line across):

1 = strongly disagree
2 = disagree
3 = undecided
4 = agree
5 = strongly agree

6. **1. I feel confident that I understand technology capabilities well enough to maximize them in the online environment.** *

Mark only one oval.

1 2 3 4 5

Strongly Disagree Strongly Agree

7. **2. I feel confident that I have the skills necessary to use technology for instruction.** *

Mark only one oval.

1 2 3 4 5

Strongly Disagree Strongly Agree

8. **3. I feel confident that I can successfully teach relevant subject content through appropriate use of technology.** *

Mark only one oval.

1 2 3 4 5

Strongly Disagree Strongly Agree

9. **4. I feel confident in my ability to evaluate software for teaching and learning** *

Mark only one oval.

1 2 3 4 5

Strongly Disagree Strongly Agree

10. **5. I feel confident that I can use correct technology terminology when directing students' technology use** *

1 2 3 4 5

Strongly Disagree Strongly Agree

11. **6. I feel confident I can help students when they have difficulty with technology.** *

1 2 3 4 5

Strongly Disagree Strongly Agree

12. **7. I feel confident I can effectively monitor students' technology use for project development in the online environment.** *

Mark only one oval.

1 2 3 4 5

Strongly Disagree Strongly Agree

13. **8. I feel confident that I can motivate my students to participate in technology-based projects.** *

Mark only one oval.

1 2 3 4 5

Strongly Disagree Strongly Agree

14. **9. I feel confident I can mentor students in appropriate uses of technology.** *

Mark only one oval.

1 2 3 4 5

Strongly Disagree Strongly Agree

15. **10. I feel confident I can consistently use educational technology in effective ways.** *

Mark only one oval.

1 2 3 4 5

Strongly Disagree Strongly Agree

16. **11. I feel confident I can provide individual feedback to students during technology use.** *

Mark only one oval.

1 2 3 4 5

Strongly Disagree Strongly Agree

17. **12. I feel confident I can regularly incorporate technology into my lessons, when appropriate to student learning.** *

Mark only one oval.

1 2 3 4 5

Strongly Disagree Strongly Agree

18. **13. I feel confident about selecting appropriate technology for instruction based on curriculum standards.** *

Mark only one oval.

1 2 3 4 5

Strongly Disagree Strongly Agree

19. **14. I feel confident about assigning and grading technology-based projects.** *

Mark only one oval.

1 2 3 4 5

Strongly Disagree Strongly Agree

20. **15. I feel confident about using technology resources (such as spreadsheets, electronic portfolios, etc.) to collect and analyze data from student tests and products to improve instructional practices.** *

Mark only one oval.

1 2 3 4 5

Strongly Disagree Strongly Agree

21. **16. I feel confident I can be responsive to students' needs during technology use.** *

Mark only one oval.

1 2 3 4 5

Strongly Disagree Strongly Agree

VALUES SURVEY MODULE 2013 QUESTIONNAIRE

Please think of an ideal job, disregarding your present job, if you have one. In choosing an ideal job, how important would it be to you to ... (please click one answer in each line across):

1 = of utmost importance
2 = very important
3 = of moderate importance
4 = of little importance
5 = of very little or no importance

22. **1. have sufficient time for your personal or home life** *

1 2 3 4 5

of utmost importance of very little or no importance

23. **2. have a boss (direct superior) you can respect** *
Mark only one oval.

1 2 3 4 5

of utmost importance of very little or no importance

24. **3. get recognition for good performance** *
Mark only one oval.

1 2 3 4 5

of utmost importance of very little or no importance

25. **4. have security of employment** *
Mark only one oval.

1 2 3 4 5

of utmost importance of very little or no importance

26. **5. have pleasant people to work with** *
Mark only one oval.

1 2 3 4 5

of utmost importance of very little or no importance

27. **6. do work that is interesting** *
Mark only one oval.

1 2 3 4 5

of utmost importance of very little or no importance

28. **7. be consulted by your boss in decisions involving your work** *
Mark only one oval.

1 2 3 4 5

of utmost importance of very little or no importance

29. **8. live in a desirable area** *

Mark only one oval.

1 2 3 4 5

of utmost importance of very little or no importance

30. **9. have a job respected by your family and friends** *

Mark only one oval.

1 2 3 4 5

of utmost importance of very little or no importance

31. **10. have chances for promotion** *

Mark only one oval.

1 2 3 4 5

of utmost importance of very little or no importance

In your private life, how important is each of the following to you: (please click one answer in each line across):

32. **11. keeping time free for fun** *

Mark only one oval.

1 2 3 4 5

of utmost importance of very little or no importance

33. **12. moderation: having few desires** *

Mark only one oval.

1 2 3 4 5

of utmost importance of very little or no importance

34. **13. being generous to other people** *

Mark only one oval.

1 2 3 4 5

of utmost importance of very little or no importance

35. **14. modesty: looking small, not big** *

Mark only one oval.

1 2 3 4 5

of utmost importance of very little or no importance

36. **15. If there is something expensive you really want to buy but you do not have enough money, what do you do?** *

Mark only one oval.

1. always save before buying
2. usually save first
3. sometimes save, sometimes borrow to buy
4. usually borrow and pay off later
5. always buy now, pay off later

37. **16. How often do you feel nervous or tense?** *

Mark only one oval.

1. always
2. usually
3. sometimes
4. seldom
5. never

38. **17. Are you a happy person ?** *

Mark only one oval.

1. always
2. usually
3. sometimes
4. seldom
5. never

39. **18. Are you the same person at work (or at school if you're a student) and at home?** *

Mark only one oval.

1. quite the same

2. mostly the same
3. don't know
4. mostly different
5. quite different

40. **19. Do other people or circumstances ever prevent you from doing what you really want to?** *

1. yes, always
2. yes, usually
3. sometimes
4. no, seldom
5. no, never

41. **20 . All in all, how would you describe your state of health these days?** *

1. very good
2. good
3. fair
4. poor
5. very poor

42. **21. How important is religion in your life ?** *

.

1. of utmost importance
2. very important
3. of moderate importance
4. of little importance
5. of no importance

43. **22. How proud are you to be a citizen of your country?** *

1. not proud at all
2. not very proud
3. somewhat proud
4. fairly proud
5. very proud

44. **23. How often, in your experience, are subordinates afraid to contradict their boss (or students their teacher?)** *

Mark only one oval.

1. never
2. seldom
3. sometimes
4. usually
5. always

To what extent do you agree or disagree with each of the following statements? (please circle one answer in each line across):

1 = strongly agree
2 = agree
3 = undecided
4 = disagree
5 = strongly disagree

45. **24. One can be a good manager without having a precise answer to every question that a subordinate may raise about his or her work** *

Mark only one oval.

	1	2	3	4	5	
strongly agree						strongly disagree

46. **25. Persistent efforts are the surest way to results** *

Mark only one oval.

	1	2	3	4	5	
strongly agree						strongly disagree

47. **26. An organization structure in which certain subordinates have two bosses should be avoided at all cost** *

Mark only one oval.

	1	2	3	4	5	
strongly agree						strongly disagree

48. **27. A company's or organization's rules should not be broken - not even when the employee thinks breaking the rule would be in the organization's best interest** *
Mark only one oval.

	1	2	3	4	5	
	strongly agree					strongly disagree

49. **28. We should honour our heroes from the past** *
Mark only one oval.

	1	2	3	4	5	
	strongly agree					strongly disagree

APPENDIX D

VALUE SURVEY MODULE

Appendix D

V S M 2013

VALUES SURVEY MODULE 2013

QUESTIONNAIRE

English language version

hofstede@bart.nl; www.geerthofstede.nl

INTERNATIONAL QUESTIONNAIRE (VSM 2013)- page 1

Please think of an ideal job, disregarding your present job, if you have one. In choosing an ideal job, how important would it be to you to ... (please circle one answer in each line across):

1 = of utmost importance

2 = very important

3 = of moderate importance

4 = of little importance

5 = of very little or no importance

01. have sufficient time for your personal or home life	1	2	3	4	5
02. have a boss (direct superior) you can respect	1	2	3	4	5
03. get recognition for good performance	1	2	3	4	5
04. have security of employment	1	2	3	4	5
05. have pleasant people to work with	1	2	3	4	5

06. do work that is interesting	1	2	3	4	5
07. be consulted by your boss in decisions involving your work	1	2	3	4	5
08. live in a desirable area	1	2	3	4	5
09. have a job respected by your family and friends	1	2	3	4	5
10. have chances for promotion	1	2	3	4	5

In your private life, how important is each of the following to you: (please circle one answer in each line across):

11. keeping time free for fun	1	2	3	4	5
12. moderation: having few desires	1	2	3	4	5
13. being generous to other people	1	2	3	4	5

14. modesty: looking small, not big 1 2 3 4 5

INTERNATIONAL QUESTIONNAIRE (VSM 08) – page 2

15. If there is something expensive you really want to buy but you do not have enough money, what do you do?

    1. always save before buying
    2. usually save first
    3. sometimes save, sometimes borrow to buy
    4. usually borrow and pay off later
    5. always buy now, pay off later

16. How often do you feel nervous or tense?

    1. always
    2. usually
    3. sometimes
    4. seldom
    5. never

17. Are you a happy person ?

    1. always
    2. usually
    3. sometimes
    4. seldom
    5. never

18. Are you the same person at work (or at school if you're a student) and at home?

1. quite the same
2. mostly the same
3. don't know
4. mostly different
5. quite different

19. Do other people or circumstances ever prevent you from doing what you really want to?

1. yes, always
2. yes, usually
3. sometimes
4. no, seldom
5. no, never

20 . All in all, how would you describe your state of health these days?

1. very good
2. good
3. fair
4. poor
5. very poor

21. How important is religion in your life ?

1. of utmost importance
2. very important
3. of moderate importance
4. of little importance
5. of no importance

22. How proud are you to be a citizen of your country?

1. not proud at all

2. not very proud
3. somewhat proud
4. fairly proud
5. very proud

23. How often, in your experience, are subordinates afraid to contradict their boss (or students their teacher?)

1. never

2. seldom

3. sometimes

4. usually

5. always

To what extent do you agree or disagree with each of the following statements? (please circle one answer in each line across):

1 = strongly agree

2 = agree

3 = undecided

4 = disagree

5 = strongly disagree

24. One can be a good manager without having a precise answer to every question that a subordinate may raise about his or her work 1 2 3 4 5

25. Persistent efforts are the surest way to results 1 2 3 4 5

26. An organization structure in which certain subordinates have two bosses should be avoided at all cost 1 2 3 4 5

27. A company's or organization's rules should not be broken - not even when the employee thinks breaking the rule would be in the organization's best interest

1 2 3 4 5

28. We should honour our heroes from the past 1 2 3 4 5

INTERNATIONAL QUESTIONNAIRE (VSM 08)- page 4

Some information about yourself (for statistical purposes):

29. Are you:
    1. male
    2. female

30. How old are you?
    1. Under 20
    2. 20-24
    3. 25-29
    4. 30-34
    5. 35-39

6. 40-49
7. 50-59
8. 60 or over

31. How many years of formal school education (or their equivalent) did you complete (starting with primary school)?

1. 10 years or less
2. 11 years
3. 12 years
4. 13 years
5. 14 years
6. 15 years
7. 16 years
8. 17 years
9. 18 years or over

32. If you have or have had a paid job, what kind of job is it / was it?

1. No paid job (includes full-time students)
2. Unskilled or semi-skilled manual worker
3. Generally trained office worker or secretary
4. Vocationally trained craftsperson, technician, IT-specialist, nurse, artist or equivalent
5. Academically trained professional or equivalent (but not a manager of people)

6. Manager of one or more subordinates (non-managers)
7. Manager of one or more managers

33. What is your nationality?

_____

34. What was your nationality at birth (if different)?

_____

APPENDIX E

PERMISSION TO USE SURVEY

Appendix E

From: "Fahad Mohammed S Alshahrani" <falshahrani1@niu.edu>
To: <pertmer@purdue.edu>
Cc:
Date: Sun, 06 Oct 2013 11:51:32 -0500
Subject: permission to use your study
Dear Dr. Ertmer,

I am a doctoral candidate at Northern Illinois University and I am currently working on my dissertation. The purpose of the study is to identify faculty online teaching self-efficacy and examine the relationship between online teaching self-efficacy and Hofstede's cultural dimensions towards the faculty readiness to adopt online education.

I have reviewed numerous articles and survey instruments; however, I believe the questions you have developed with your colleagues Wang and Newby would be a perfect fit to collect data for the teacher technology self-efficacy portion of my study. I would like permission to utilize the survey in the study.

Please let me know if I may use the study below for my dissertation research:

Wang, L., Ertmer, P., & Newby, T. (2004). Increasing preservice teachers' self-efficacy beliefs for technology integration. Journal of Research on Technology in Education, 35 (3), 231-250.

Thanking you,

Fahad AlShahrani

---------- Forwarded message ----------
From: "Ertmer, Peggy A" <pertmer@purdue.edu>
To: Fahad Mohammed S Alshahrani <falshahrani1@niu.edu>
Cc:
Date: Mon, 7 Oct 2013 17:58:53 +0000
Subject: Re: permission to use your study

Yes, of course, you may use the survey from the study. Please just cite it as you have below.

Good luck with your work!

Peg Ertmer

Peggy A. Ertmer

Professor of Learning Design and Technology

Founding Editor, Interdisciplinary Journal of Problem-based Learning (IJPBL)

Purdue University, College of Education

Room 3144

100 N. University Street

West Lafayette, IN 47907-2098

pertmer@purdue.edu; 765-494-5675

http://www.edci.purdue.edu/ertmer--

I've learned that I still have a lot to learn ... Maya Angelou

APPENDIX F

INSTRUMENT VALIDITY

Appendix F

From: "Ertmer, Peggy A" <pertmer@purdue.edu>
To: Fahad Mohammed S Alshahrani <falshahrani1@niu.edu>
Cc:
Date: Fri, 10 Jan 2014 14:02:54 +0000
Subject: Re: permission to use your study
Fahad,

This looks good. I made just a few little wording changes.

Good luck with your work.

Peg

Peggy A. Ertmer

Professor of Learning Design and Technology

Founding Editor, Interdisciplinary Journal of Problem-based Learning (IJPBL)

Purdue University, College of Education

Room 3144

100 N. University Street

West Lafayette, IN 47907-2098

pertmer@purdue.edu; 765-494-5675

http://www.edci.purdue.edu/ertmer

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I've learned that I still have a lot to learn ... Maya Angelou

Location: http://pininthemap.com/e26fdd916c346dc8a

From: Fahad Mohammed S Alshahrani <falshahrani1@niu.edu>
Date: Tuesday, January 7, 2014 11:59 AM
To: Peg Ertmer <pertmer@purdue.edu>
Subject: Re: permission to use your study

Dear Prof. Ertmer,

Happy New Year!

First of all, I would like to thank you for allowing me to utilize your survey. I made small wording changes in the survey to target my research where I changed the wording from Computer to technology and from classroom to online environment. As a professional in the field and part of the original survey would it be possible to get your feedback on the modified survey? This will help in the credibility and validity of the survey as it has been reviewed by a well-known scholar such as yourself.

I apologize for any inconvenience my request may have caused you and have a great day.

Thanking you,

Fahad

APPENDIX G

IRB APPROVAL

Appendix G

IRB Approval

NORTHERN ILLINOIS UNIVERSITY
Office of Research Compliance and Integrity
Lowden Hall 301 · DeKalb, IL 60115-2584
815-753-8588 · Fax 815-753-1631 · www.niu.edu/orci

Approval Notice
Initial Review

19-Feb-2014

TO: Fahad Alsahrani
Educational Technology, Research, and Assessment

RE: Protocol # HS14-0039 "**Faculty online teaching self-efficacy and cultural dimensions: the possible impact on the adaptation of online education, and the royal commission of Jubail in Saudi Arabia**"

Your **Initial Review** submission was reviewed and approved under **Expedited** procedures by Institutional Review Board #1 on **19-Feb-2014**. Please note the following information about your approved research protocol:

Protocol Approval period: **19-Feb-2014 - 18-Feb-2015**

If your project will continue beyond that date, or if you intend to make modifications to the study, you will need additional approval and should contact the Office of Research Compliance and Integrity for assistance. Continuing review of the project, conducted at least annually, will be necessary until you no longer retain any identifiers that could link the subjects to the data collected. Please remember to use your **protocol number** (**HS14-0039**) on any documents or correspondence with the IRB concerning your research protocol.

Please note that the IRB has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Unless you have been approved for a waiver of the written signature of informed consent, this notice includes a date-stamped copy of the approved consent form for your use. NIU policy requires that informed consent documents given to subjects participating in non-exempt research bear the approval stamp of the NIU IRB. This stamped document is the only consent form that may be photocopied for distribution to study participants.

It is important for you to note that as a research investigator involved with human subjects, you are responsible for ensuring that this project has current IRB approval at all times, and for retaining the signed consent forms obtained from your subjects for a minimum of three years after the study is concluded. If consent for the study is being given by proxy (guardian, etc.), it is your responsibility to document the authority of that person to consent for the subject. Also, the committee recommends that you include an acknowledgment by the subject, or the subject's representative, that he or she has received a copy of the consent form. In addition, you are required to promptly report to the IRB any injuries or other unanticipated problems or risks to subjects and others. The IRB extends best wishes for success in your research endeavors.