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Integration of technology into teacher training courses in Saudi Arabia

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INTEGRATION OF TECHNOLOGY INTO TEACHER TRAINING COURSES
IN SAUDI ARABIA

A Thesis
Presented To
Eastern Washington University
Cheney, Washington

In Partial Fulfillment of the Requirements
For the Degree
Master of Education, Instructional Media and Technology

By
Ahmed Awadh Alzahrani
Spring 2013

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MASTER'S THESIS

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CHAPTER 1

Introduction

Background

Teacher training programs in Saudi Arabia prepare teachers in four years of college or university. Pre- service teachers attend college or university to earn a bachelor's degree. Teacher Colleges train students to teach in primary schools, while universities prepare students to teach in middle and high schools. I was excited to be in a primary school because I believed that the six to ten years old children were a challenge to teach. In 2001, I attended a Teacher College in Jeddah, now named the Faculty of Education. I graduated in 2005.

Despite spending four years studying how to teach, I was never trained on how to integrate technology into my instruction. The only thing I learned to use was the overhead projector or slide projector. My students and I found it boring plus we needed a darkened classroom. Moreover, the educators in that college did not use technology in their courses. As a result, I used in my classroom the same technology that I was taught.

In my second year as a teacher, I decided to teach myself how to bring technology into teaching. I began using PowerPoint presentations, and then used some multimedia, which was the changing point in my teaching career. In the same year, the Ministry of Education provided new projectors and computers to all the first grades in primary schools. However, most first grade teachers did not know how to use this technology or how to merge it in their courses.

Significance of This Study

The new generation of students lives with technology, and the only thing that holds their attention is technology. As we know, teachers have always been responsible for teaching content. However, with today's generation, teachers must offer technology in the curriculum in order to meet students' needs. Using a computer as a teaching tool in the classroom could improve students thinking and their interaction with the curriculum.

The importance of this study stems from its attempts to bridge the technology gap existing between policies made at the level of teachers' training programs and faculty's usage of technology in order to support the development or the use of technology in Saudi Arabia's education system. This study is important to me personally as it overlaps with my aspirations to find the ways and means to develop teacher training programs in my country. Teacher training programs are regarded as very important. The aim is to provide teachers with training in pedagogy and to become qualified in specialized subjects and methodology. Kahn (1997) stated, "Teachers teach as they have been taught" (p. 33). I think what Kahn stated was exactly what happened with me in my first year of teaching. As a result, I taught my students what I had learned from college in the same traditional methods without any advanced technology.

Integrating technology into the classroom especially in teacher training courses offers many benefits. Edutopia.org (2008), which is a website published by The George Lucas Educational Foundation, pointed out, "Effective tech integration must happen across the curriculum in ways that research shows deepen and enhance the learning process. In particular, it must support four key components of learning: active engagement, participation in groups, frequent interaction and feedback, and connection to

real-world experts “(p. 4). College educators should merge technology through their courses to model how to use it in teaching.

Area of Focus

The purpose of this study is to investigate the current status of technology integration in pre service teacher training programs and the faculty’s experiences in using technology in Saudi Arabia’s teacher training programs. Also, this study will examine the instructors’ views about the use of technology in their courses.

Research Questions

1. What is the impact of technology integration in Saudi Arabia’s teacher training?
2. What is the status quo of technology use by faculty in Saudi Arabia’s teacher training programs?
3. What are the barriers to integrating technology in teacher training courses?
4. To what extent can teachers in Saudi Arabia handle issues of technology use in their classroom?

Possible of Limitations

Pre-service teacher training programs in my country are a part of Saudi universities or colleges. In Saudi Arabia there are 33 universities 24 are public and 9 are private. The number of faculty in these universities is 18,898 Saudi male faculty members and 13,542 Saudi female faculty members. Due time constraints and a budget limit, the participants were not randomly selected. Although, the sample size was big enough to contact data analysis, special attention is needed in generalizing the findings of this study. In addition, it was difficult to identify an equal number of female faculty participants, although this researcher realizes the importance of gender equality. I faced

some challenges in my last research question. Teachers could not handle issues of technology in their classroom if they were not trained to use it.

Terminology

The Noor system: “a comprehensive and integrated structure to provide advance technology for administrations in education” (International Telecommunication Union, 2012).

The Jusur System: “is an integrated software system responsible for managing the E-learning process” (Hussein, 2011).

EFL: A teacher-training program to teach English as a foreign Language in Saudi Arabia.

CHAPTER 2

Literature Review

Introduction

Who would have thought that we would be able to have internet on our phones, be able to use a light pen on the touch screens and projector, and manipulate a website on a smart board? Not me, but with today's ever changing world we should expect new technology. Since 1990, the world in general and the Saudi society in particular has faced the rapidly increasing challenges due to the rapid developments in technology. The Royal Embassy of Saudi Arabia's report (2012) stated that there are 33 private and public universities in Saudi Arabia, which is an increase of 26 since. The rapid development of the number of universities within just nine years has increased the need of technology use and the need for faculty who can bring technology into their courses.

This chapter contains four sections. The first section focuses on the impact of integrating technology in Saudi Arabia's teacher training. The second section examines the use of technology by faculty in Saudi Arabia's pre-service teacher training programs. The third section presents the barriers to integrating technology in classrooms. The last section examines the teachers' experience in how to handle issues of technology in their classroom.

According to Herndon (2006), Columbia University, "over ninety-nine percent of all public schools currently have Internet access and have improved student access to an average ratio of four students per computer" (p. 4). Computer, Internet, and social media have revolutionized the field of technology, and have changed the way of teaching and learning. Teaching our students with current technology will help them to become a

productive and successful generation of tomorrow.

Since 1990, many countries have funded the development of technology in their schools. Slowinshi (2000) stated, “since 1991, the United States has spent more than 19 billion dollars on developing information technology (IT) infrastructure in local school districts and classroom” (p. 1). Moreover, with that huge monetary support, some countries have developed great strategies to integrate technology in schools. In Saudi Arabia, the ten-year plan of the Ministry of Education, which covers the period of 2004-2014, a strategy to develop the country’s education system, and to integrate technology in schools in particular (The Ministry of Education report, 2004).

Most of the education budget is spent to improve the use of technology in Saudi Arabia. Today, Saudi Arabia’s education system comprises more than 32 public and private universities, and more than 26,000 elementary schools. All public schools and institutions are free and open to every citizen. Free books and free health services are provided to students. About 5 million students are enrolled in the system. Student to teacher ratio is one of the lowest in the world, 11 teachers to one student. The literacy rate in the Kingdom has increased from 35% to 96 %, within only 40 years (Royal Embassy of Saudi Arabia, 2012).

The impact of Integrating Technology

Over the past decade, there have been many changes in the educational computer applications in Saudi Arabia. They started to take many forms; such as web applications, web services, and Windows applications. The impact of emerging this technology on education has greatly assisted and facilitated the organization of education, performance and speed of the administrative work.

The Ministry of Education of Saudi Arabia has been making attempts to integrate technology in the process of developing its education system. One of its important attempts was the Noor project. International Telecommunication Union (ITU) (2012) explained, “Noor System is a comprehensive and integrated structure to provide advance technology for administrations in education” (p. 4). This project requires all K-12 teachers to get online for instructional activities. Students can receive their final grades from the Noor system via an Internet web site allowing both students and their parents to have access.

Impact of teachers’ beliefs in integration of technology. Coursework performance varies from teacher to teacher. Each teacher’s belief in the significance of integrating technology makes a difference in her/his technology usage. Klopfer et al. (2009) stated, “Technology can have a reciprocal relationship with teaching. The emergence of new technologies pushes educators to understanding and leveraging these technologies for classroom use; at the same time, the on-the-ground implementation of these technologies in the classroom can (and does) directly impact how these technologies continue to take shape” (p. 3).

Teachers’ beliefs play an important role in technology integration. In the United Arab Emirates, Al-Mekhlafi (2004) used a quantitative research to examine 250 English language secondary school teachers’ beliefs in three aspects: their views of the importance of the Internet in teaching English language, their willingness to integrate such a technology into their courses, and their concerns with the application of Internet-base courses. The findings of his study indicated that though teachers were familiar with the advanced technology and received some preparation to bring that technology into

their courses; but since Internet access was unavailable in the schools, the majority of the EFL teachers did not use the Internet technology in their courses.

Another finding from Al-Mekhlafi's study was that the teachers had some concerns with students' inappropriate usage of Internet such as they might use the Internet for amusement instead of using it to learn academic. Most teachers did not feel well prepared to integrate the Internet into their courses. They need sufficient Internet training. These concerns could impact teacher performance, especially if teachers do not believe in the importance of technology.

Teachers' experience in using technology is another factor that can impact integrating technology in the classroom. In his qualitative study Barnawi (2009) examined five EFL teachers' beliefs, preparation, attitudes, and concerns towards the Internet-based EFL instruction at Yanbu Industrial College (YIC). The findings of this study indicated that teachers had positive attitudes toward integrating the Internet or technology into their courses, and they considered the Internet as an important source of information for educational purposes. Barnawi (2009) stated that teachers were familiar with using the Internet due to their positive experiences, but they had difficulty in using technology because the large class sizes. As a result, Barnawi pointed out, "This finding suggests the use of collaborative learning or in small groups might help the teachers integrate the Internet into the classroom" (p. 10).

The faculty of teacher training programs, universities, and colleges had different views about technology use in their courses. Positive views could impact in the use of technology or in the interaction with the new projects. In Saudi Arabia, there are many advanced projects that the faculty required to use in learning and teaching process. One

of these projects is called the Jusur system, which is a learning management system follows the National Center for E-learning. Hussein (2011) in his quantitative study identified the views of 90 faculty members of 6 Saudi universities towards the use of this system. The findings of this study showed that faculty members held positive attitudes towards the e-learning management system Jusur. However, there was a lack of faculty training in how to use this system and its features such as file sharing.

Impact of using technology on students' achievements. Integration technology in the classroom could improve student achievement. Schacter (1995) conducted a data analysis of more than 700 studies. He summarized that the students whom had access to educational technology showed positive gains in academic achievement, especially on a clear learning objectives and focusing of technology initiatives on teaching and learning. Zuckerman (2009) in his article pointed out that the United States needs better teachers to improve student achievement and the great way to do that is to develop teaching skills for using technology in the classroom. He also mentioned that the government of the United States should provide schools with new technologies and support programs that could train teachers in using technologies in an effective way. In Saudi Arabia, the government provides 25% of the annual budget for education. UK Trade & Investment (2010) recommended that the education budget would contribute to the training of all Saudi teachers to be licensed informational communication technology teachers.

Many studies have showed the impact of integrating technology upon student achievement. Sivin-Kachala and Bialo (1998) reviewed 311 research studies in his research report on the effectiveness of technology in schools. Most of those studies were assessing the effect of technology on student achievement. Sivin-Kachala revealed that

” original research reports and reviews of educational research published between 1990 and 1998 confirm that microcomputers and other educational technologies have beneficial effects on student achievement” (p. 15). Kulik found that:

Schools can dramatically improve the achievement of their high-ability learners by giving them school programs that provide greater challenge. The next most potent innovations involve individual tutoring by computers or by other students ...computer tutoring seems to be slightly more effective... Instructional technologies that rely on paper and pencil are at the bottom of the scale of effectiveness. (as cited in Sivin-Kachala and Bialo,1998, p. 16)

Abu Naba’h (2012) in his quantitative study explained the impact of using the computer to teach grammar to Jordanian ESL students. The researcher in this study designed an achievement test and used it as pre-test and post-test to find out the learning affect on student performance in grammar, so a software program was applied. The subjects of the study were 212 secondary students, who were selected randomly and formed into four experimental groups and four control groups.

The findings of the study showed that the students who were taught the passive voice via computer (the experimental group) reached higher scores in both the pre-test and post-test than students who were taught the same grammatical item using the traditional method. This finding showed that the use of a computerized software program could produce a significant effect on the achievement of students.

Muir-Herzig (2003) conducted a quantitative study to investigate the effects that technology has on at-risk students’ grades and attendance. Computer technology was used in the classroom with the participating at-risk students, who had educational

problem such as, low grades, low GPA, and high absenteeism. Sixty-three high school teachers volunteered for this study, and 43 teachers completed the technology survey with 39 teachers having at-risk students in their classrooms. The survey contained four sections that determined the teachers' usage of technology, technology expertise and how often administrative, teacher, and student used technology in school. The findings of this study showed that technology usage did not affect the at-risk students' grades, and this may be due to the low use of technology although they were given the option to use technology. However, the researcher suggested that technology training was needed in order to apply technology as an effective tool. Schools must prepare teachers for technology use in the classroom regardless of its use by learners of all levels or abilities.

Technology Use

Internet usage has increased rapidly in Saudi Arabia's society. According to the website of Internet.gov.sa (2012), the Internet became available to the public in 1999, and the number of users was around 200,000 in December 2000. However, that number increased rapidly between the periods of 2000-2011. Internet World States (2011), which is a statistic website, reported that the number of Internet users in Saudi Arabia increased to 13 million in December 2011. This number of Internet users indicates the importance of using the Internet to support student learning in universities, colleges, and schools.

The Speak Up National Research Project is a national online research project facilitated by Project Tomorrow. It gives individuals the opportunity to share their viewpoints about key educational issues by using an online survey. Since 2003, more than 1.5 million participants from the United States, Canada, Mexico and Australia were surveyed. They were K-12 students, teachers, parents and administrators sharing ideas

and viewpoints on education and technology. The findings of this study showed that 51% of the teachers used technology to facilitate student learning. Also, over 50% of the teachers said they would be interested in learning more about including gaming technology into their teaching and 46% would be interested in professional development. Another 11% said that they currently incorporate some gaming into their instruction (Project Tomorrow, 2008).

Government support for technology usage. The government of Saudi Arabia has played an essential role in promoting the integration of technology in Saudi Arabia's education. It has launched a Ten Year Plan 2004-2014, which contains the goals of reforming and developing the education by using technology to promote its education system (Ministry of Education, 2005). So the first step of this development was by establishing the National Centre for E-Learning and Distance Education (NCeDL) in 2006, which has played the important role to create some technological projects such as Jusur and Tajseer (Al-Khalifa, 2010). The following projects are some example of the government's support to integrate the technology in Saudi Arabia's education:

1. JUSUR project is a learning management system (LMS). Jusur project "is an integrated software system responsible for managing the E-learning process" (Hussein, 2011. p. 2). Zouhair (2010) conducted a qualitative study aiming to report "the perceptions of both faculty and students when JUSUR is used to supplement the teaching inside and outside the classroom with one academic subject; and to compare the experience of the instructor who had previously taught the same course using a course website to support traditional face-to-face methods with interactive web-based technology" (p. 1). The participants of this study were 25 female students who did not

have any previous experience with learning management system at Prince Sultan University. The findings of this study indicated that the students were engaged with this learning experience, and found JUSUR to be a helpful and useful learning management system that promoted their understanding of course content. In addition, students had a favorable response toward JUSUR and their feedback showed how this experience was beneficial. Furthermore, students were interested in using JUSUR and they were looking forward to using it in their future courses.

2. NOOR project, according to International Telecommunication Union (ITU), (2012) is “a comprehensive and integrated structure to provide advance technology for administrations in education” (p. 4). This project aims at connecting the Ministry of Education and all schools and school districts in the various areas and regions within the Kingdom to a centralized information system and database (ITU, 2012). The project would also increase competitiveness among students, teachers, and schools, on top of encouraging many users to learn how to use computers and the Internet.

3. Tajseer project “is designed to help progress from the more traditional ways of teaching and learning to more advanced methods through the use of technology” (Alkhalifa, 2010 p. 2).

4. WATANI Schools’ Net project was launched in 2001. According to Alruwais (2011) the project aims to "fully assimilate information and communication technology into the school system; to positively exploit information and communication technology in the educational process, to develop teachers' potentials and the cognitive level of students by enabling them to directly access sources of knowledge, and to upgrade the results of the educational process by graduating productive highly skilled future generations of

students" (p. 17).

King Abdullah bin Abdulaziz, Saudi Arabia, has played a big role in the development of education and use of technology. King Abdullah Bin Abdulaziz (Abu Rass, 2007) said, "Illiteracy is no longer the inability of reading and writing, but is the inability to deal with the computer" (p. 1). King Abdullah Bin Abdulaziz Public Education Development Project (Tatweer), which is a project to develop and reform the education, has revolutionized the use of technology in Saudi Arabia's education. The Ministry of Education (2008) reported that King Abdullah Bin Abdulaziz's Public Education Development Project aims "to integrate technology in the educational process using computer and literacy of computer amongst the female and male teachers" (p. 28).

Technology usage in Saudi Arabia's education. Using technology in the classroom depends on several factors, such as the teachers' perspectives about technology integration in their courses and teachers' experiences in how to use it. Al Asmari (2011) conducted a qualitative study to investigate the possibility of integrating technology into pre-service English Foreign Language (EFL) teacher education. The participants of this study were 180 pre-service male teachers. The findings indicated that the EFL pre-service teachers had little technology experience and their technology use was more idealistic than realistic.

Another finding from Al Asmari's (2011) evaluative study showed that 51 percent of the 180 participating pre-service Saudi EFL teachers liked to use technology at home. The disappointing finding of this study was more than half of the 180 participants reported never using technology in the classroom, and 62 used it rarely. This means there was a huge lack of technology use in Saudi Arabia's classrooms.

Technology usage in Saudi Arabia's higher education varies from institution to institution. For instance, King Abdullah University of Science and Technology (KAUST) has a high quality of education and a high use of technology in their classrooms. Lindsey (2011) pointed that KAUST is part of a global network. Researchers, Al Shawi and Alwabil (2012), in their quantitative research examined the level of Internet usage by faculty members in four Saudi's institutions: King Saud University (KSU), Imam Muhammad bin Saud University, Prince Sultan University (PSU), and Al-Yamamah College. The survey was distributed to 504 full time teaching faculty members of the four participating institutions, 253 from KSU, 127 from Imam University, 118 from PSU, and 6 from Al-Yamamah College. Part-time faculty, visiting faculty, and teaching assistants were excluded from the sample. The findings of this study showed that half of the participants used three or more hours of computer per day.

Another finding of Al Shawi and Alwabil's study showed that 71% of the faculty believed that the Internet helped them with their academic work, and most faculty (81.9%) had used the Internet for four or more years. However, the faculties in these institutions were not active with sending or receiving emails. Most participants in this study sent out fewer than five emails per day and received fewer than 10 emails per day. These findings showed that the faculty in Saudi's universities had positive experiences with technology and they were able to integrate technology in their courses more than their colleagues in teacher training programs. However, in general Burns (2011) pointed out that the recent reports showed that only 39 percent of teachers use technology as an instructional tool.

Al-Alwani (2010) conducted a quantitative study in Yanbu University College at

Royal Commission for Jubail and Yanbu at Yanbu Industrial City. It examined the degree of use of information technology in the teaching and learning process. It also identified the factors that were related to the use of information technology. The participants of this study were 31 male and 43 female teachers of Yanbu University College during the year 2008-2009. In this study Al-Alwani found that the female and male teachers are at the same level of technology use. Evidently, gender did not make a difference in knowledge of technology and its usage to support existing classroom practices.

Al-Faleh (2012) conducted a quantitative study aiming to know the digital technology use in Saudi Arabia's schools. The study was interested in knowing to what extent the digital media were used in schools, its availability, and its appropriateness. The study discussed 15 instructional technology, such as computers, Internet, and multimedia. The participants responded in how often they used them in the classroom. The study consisted of 144 secondary schools teachers, who were selected randomly, in public and private schools in Riyadh - Saudi Arabia.

Results of this study showed that using technology in public or private schools was at the same level of usage. Teachers in both public and private schools were aware of the importance of using digital technology. Digital media were available at both the public and private schools and they were used at the same degree. In addition, most of the digital technology found in schools were appropriate for using.

There have been research studies regarding elementary teachers' technology use. Bryant's study (2008) examined teachers' experiences with support, experiences with staff development, and their experiences with the five elements of diffusion, which are "complexity, triability, observability, relative advantage, and compatibility" (p.22), in the

area of technology integration in their schools. The subjects in this study were 97 teachers from a suburban, southeastern metropolitan school district. Among the participants, 81 answered the online survey, and 16 were interviewed.

Bryant concluded that there was a growth of integration technology in the classroom. This resulted in the students' increased engagement in learning. In addition, the study reported that 96% of teachers had at least five computers in their classroom, 93% had access to a computer lab, 67% had access to a mobile laptop lab, nearly 80% teachers used technology frequently, and they integrated technology almost daily.

Barriers to Integrating Technology

Instructional technology is an important tool to facilitate teaching and learning process; however, due to some barriers, educators and in-service teachers do not integrate instructional technology in their teaching as desired. In this section several studies were synthesized to explore the barriers of a successful integration of instructional technology.

Barriers related to teachers. Bingimlas (2009) reviewed a number of research study on significant barriers. He classified the barriers to technology integration into two levels: teacher- level and school- level. The study reported that the teacher- level barriers of integrating technology were the teacher's lack of confidence, lack of skills in technology use, and lack of awareness on the benefits of technology.

The school- level barriers included: teachers did not have sufficient time to integrate technology; more training was needed in how to integrate technology into courses, lack of technology access, and lack of technical support in the classroom. In addition, the barriers that limit integrating technology in the classroom also included the lack of time to prepare course materials, lack of time to participate in technical training,

lack of administrative support, and lack of hardware and software (Lea, Clayton, Draude, & Barlow, 2001).

In the Saudi education system, all students are gender separated from elementary school to college. In male universities all faculty are males; however, in the female universities there maybe male faculty members, but they cannot teach in the same room with the female students. As a result, male faculty uses projectors, screens, and videos to connect with their female students. This means female pre-service teachers are more familiar with using technology in the classroom than males.

Al-Kahtani et al (2006) conducted a qualitative study to investigate the viewpoints of 24 female faculty in Saudi Arabia toward the use of the Internet. The faculty all worked at four higher educational institutions, King Saud University, Immam Mohammed Bin Saud Islamic University for Women, Prince Sultan College for Women, and Saudi Arabia's Girls College. They were interviewed extensively over a year. They taught in three different fields of study: science, humanities and religion.

The findings of this study showed that there were three primary elements that affected the use of the Internet by the Saudi female faculty members. These elements were job requirements, self-perception, and technology availability. The study also revealed that five of 24 faculties had access at home and work, nine of 24 faculties had access just in home, and ten of 24 faculties had no Internet access in work and even in home. The female faculty members had less access to computers than male either at home or in school.

There have been increased research studies focusing on the barriers of technology use in the classroom in the Arabic countries. In Jordan, Alkawaldeh (2011) conducted

qualitative study to explore these barriers to use information and communication technologies for teaching and learning. This study was to discover and understand the challenges that face the implementation of informational communication technologies in public education in Jordan. Interviews, class observations, and documenting studies were the methods he used in this case study. After making arrangements with the Jordanian Education Initiative administration, he chose two secondary schools compared of one girls' school and one boys' school. Alkawaldeh identified 15 barriers that affected the process of technology integration. The problems were mainly related with teachers (14 out of 15 barriers); students have the least number of problems only four out of 15 barriers. Also the study indicated the need to focus on teachers' beliefs because most of them did not want to change their teaching style by using technology.

Barriers related to institutions. Another barrier to technology integration was related to institutions and technical support. Suleman et al (2011) conducted a quantitative study. Their study aimed to explore the barriers to integration of instructional technology in the teaching and learning process at the secondary school level in Khyber Pukhtunkhwa in Pakistan. Also it aimed to find out the appropriate ways for the successful integration of educational technology in teaching learning and process. The subjects in this study were selected randomly. Poor availability of technology was reported as the main barrier to technology integration. Recorded barriers were a lack of technical support, lack of administrative support, lack of funding, lack of necessary skills and knowledge, lack of internet facilities, lack of training opportunities, lack of time preparation and lack of incentives.

Al-balawi (2007) in his quantitative study investigated the attitudes of the faculty

members at three Saudi universities toward web-based instruction (WBI). He also explored the current status of WBI in the Saudi education system to determine barriers that could affect the implementation of WBI. The participants of this study were selected randomly and they were 531 faculty members of three important universities. There were 203 participants from King Abdul Aziz University, 206 participants from King Saud University, and 68 participants from King Fahd University of Petroleum and Minerals.

Al-balawi in this study found that faculty had a positive attitude toward WBI. The faculty also believed that online courses would be important for the future of higher education in Saudi Arabia. Also he found nine main barriers that limited the use of WBI in those universities, including “ (a) lack of knowledge on how to develop WBI, (b) lack of enough time to develop WBI, (c) lack of clear WBI policies, (d) lack of clear course ownership policies, (e) lack of peer support, (f) lack of technical support, (g) lack of monetary incentive, (h) lack of administrative support, and (i) lack of governmental support” (p. 51).

El Semaary (2011) used a quantitative study method to involve the three parties (faculty- students- technicians) in developing a plan of action to use effective teaching techniques in the classroom-teaching process. This study had 16 participants, 100 faculty were surveyed, 8 students, and 8 technicians, from College of Humanities and Social Sciences in UAE.

The findings of this study indicated that 89 % of the faculty believed that classroom technology facilitates learning. However, 61% of them did not use it frequently, and due to the faculty’s concern about virtual keyboard and sharing their password, 29% do not use it. El Semaary also found that “a number of faculty members

(41%), mainly Arabs, disagree with the idea that students can help teachers use technology effectively in class” (p. 27). However, the barrier to the effective use of classroom technology could be due to the lack of a clear plan in technology usage.

Barriers related to training programs. Good training programs for pre-service teachers or in-service teachers take into consideration critical barriers of integrating technology in the classroom. Dias (1999) pointed out that the most common barrier to technology integration is effective training. Al Alwani and Soomro (2010) conducted a quantitative study in science education at the Yanbu school district in Saudi Arabia. Their study examined the barriers that limited Saudi science teachers from using technology in the education districts of Saudi Arabia. It also identified the factors that were related to the use of information technology. The subjects in a survey study were 176 science teachers (105 male and 71 female). Questionnaires were sent to all of the district schools during 2003 - 2004. The findings of this study indicated that male and female teachers experienced the same barriers, which included too many subjects to teach, lack of training, busy schedules, lack of technical support, and lack of equipment in the schools.

Other findings of the study came from the participants’ responses to the open-ended question. Most of their responses reported: lack of information technology resource centers in education districts or in schools, lack of in service teacher training, or no school budget for short training courses. Teachers had to pay for the courses.

Al Kindi (2007) conducted a study aiming to explore the use of instructional technology in general education in Oman and to determine the barriers that limited its use in schools. There were 91 participants in this study including; 31 teachers who were selected randomly from Al-Dakhiliyah educational area and 60 male and female students

from two schools in the same area. The findings of this study were similar to those of Al Alwani's and Soomro. Although teachers and students were aware of the importance of instructional technology, lack of training courses for teachers was the main barrier that limited teachers from using it in the classroom, especially lack of courses that taught them how to produce and develop their teaching materials. This led to a greater difficulty for the teachers who tried to utilize educational technology.

Many countries suffer from the lack of effective training programs. Kadzera (2006) conducted a quantitative study to examine the status of technology use in teacher training colleges in Malawi. Participants were 80 teachers from five teacher-training colleges. They were 19 teachers from Blantyre Teachers College, 16 teachers from Karonga Teachers College, 16 teachers from Lilongwe Teachers College, 17 teachers from Montfort Teachers College, and 12 teachers from St. Joseph's Teachers College. Kadzera found that there was an infrequent use of instructional devices such as overhead projectors, videos, and computers. Also similar barriers were pointed out, such as, lack of training, lack of technology tools, and lack of technical support. Although some schools had technology available, some teachers did not use it due to the lack of training, and a lack of initiative to use the local resources.

Development of Technology Expertise

The faculty's level of expertise or proficiency on technology equipment and applications is an important factor in handling computer's issues or Internet problems. These days most faculty and teachers have some knowledge of how to use technology. They do need more experience and skills using the equipment and troubleshooting in order to utilize advanced technology. Many studies showed that training programs were

the way to increase a high level of expertise on technology usage. In addition, years of experience with technology is another way to acquire the high level of expertise or proficiency in technology application.

Training for increased expertise. Instructional technology cannot replace the teacher's role in the classroom, but teachers who can bring technology into the curriculum can increase efficiency of their instruction and student learning. This cannot happen without trained teachers and teachers' expertise in using technology efficiently. Many studies indicated that students benefit from trained teachers who use technology. Teachers may also troubleshoot technology issues in the classroom. Slowinshi (2000) pointed out that the improvement of teachers' performance in the classroom:

Requires teacher-training institutions to enhance the technology skills of pre-service teachers by promoting technology in school-of-education classrooms as well as providing pre-service teachers with increased opportunities to practice evolving technology skills and knowledge. Unfortunately, neither ubiquitous modeling of technology use nor education technology mentors exists in most schools and colleges of education. (p. 1)

Bennett (2002) pointed out the importance of job training of teachers "if schools could train teachers, the argument goes, technology would finally deliver major benefits to education" (p. 622). Afshari, Abu Bakar, Luan, Abu Samah, and Fooi (2009) stated, "teacher training programs play an important role to provide the necessary leadership in training pre-service and in-service teachers to deal with the current demands of society and economy" (p. 97). Cauthen and Halpin (2010) reported that all the schools and colleges that they interviewed asserted that instructors should receive a good training on

technologies before they implement them in their classroom.

Carlson and Gadio (2002) claimed that,

The key to successful teacher professional development programs is a modular structure, corresponding to different levels of teacher experience and expertise using technology. Adapting materials to teachers' comfort level and starting points is essential. In this way, teachers new to technology can be exposed to the full series of professional development modules, while those further along on the learning curve can enter where their knowledge and skills stop, and help their less technology-savvy colleagues along. (p. 121)

Considering the in-service teachers, Daly (2003) reported that these teachers do not like to attend technology training after teaching all day, but they could use their own planning time to practice and gradually reach required skills.

Zhao and Bryant (2006) assured that to merge technology into the curriculum, teachers should participate in good training programs to move beyond using them from basic computer skills in teaching. Teachers need to be experts in the use of technology because they are dealing with a new generation of students who live with technology.

Carlson (2002) stated that:

While technology increases teachers' training and professional development needs, it also offers part of the solution. Information and communication technologies (ICTs) can improve pre-service teacher training, by providing access to more and better educational resources, offering multimedia simulations of good teaching practice, catalyzing teacher-to trainee collaboration, and increasing productivity of non instructional tasks. (p. 7)

Teachers' experiences with integrating technology. Teachers with more experience using technology could affect their expertise in effective integration of technology and also with handling technology issues. It is a beneficial cycle, which means more years of use gains more proficiency. Some studies assumed that training programs are not enough to improve technology integration in the classroom. Bhasin (2012) claimed that, to improve the teaching and learning process, training programs are not enough for teachers. They need professional development in the instructional application of technical skills.

In Saudi Arabia, pre-service teachers need to learn how to create an instructional web page for their classroom. They should also become familiar with equipment in case problems arise. This cannot happen if they do not practice using technology and obtain the experience from their daily classroom in the college. Several studies showed that most teachers were proficient in word-processing and e-mail. Al Asmari (2005) conducted a quantitative (the survey) and qualitative (the interviews) combined study with 203 EFL teachers at four main colleges of technology in Saudi Arabia located in the cities of Riyadh, Jeddah, Abha, and Dammam. He described the level of Internet use by English Foreign language (EFL) teachers. The study also investigated the teachers' expertise in Internet use, their perception towards the Internet as a tool for instructional purposes, and select characteristics of EFL in the college of technology in Saudi Arabia.

The findings of this study showed that more than half participants (51.5 %) had 1-5 years' teaching experiences, 50.9 % of the participating teachers had 2-5 years' computer experience, and 66.1 % had 2-5 years' Internet experience. Al Asmari found that EFL teachers had an intermediate level of expertise in computer applications and the

highest level of expertise in word processing and PowerPoint. However, the lowest level of expertise was in the use of spreadsheets (e.g., Microsoft Excel), databases management (e.g., Microsoft Access), and use of graphics.

For Internet expertise, Al Asmari found that EFL teachers were at an intermediate level. The highest level of expertise in Internet was reported in using e-mails and World Wide Web (WWW). In contrast, the lowest level of expertise in Internet was creating a web page. This study showed that teachers were more proficient when they had many years of experience with technology. As a result, teachers would be able to use technology for instructional purposes due to their levels of expertise in technology.

Isleem (2003)'s study also investigated the selected factors related to: expertise, access, attitude, support and teacher characteristics. A survey was mailed to all technology education teachers in Ohio public schools. They were 1170 teachers in 2002-2003. The return rate was 66%. The findings of this study indicated that technology education teachers had a high level of computer use, such as word processing, e-mail, classroom management, and Internet. Also, there was a positive connection between teachers' use of computers and their perceived expertise, attitude toward computers as tools, and access to computers.

Summary

Research has shown the impact of teachers' belief in integration of technology. Teachers had positive attitudes toward integrating Internet or technology into the classroom; however, there were some concerns with integrating technology in their classroom. Teachers were afraid that students used the Internet for recreational purposes instead of using it to learn (Al-Mekhlafi, 2004). The impact of using technology upon

students' achievements was addressed in some studies. There was a significant positive effect of the use of a computerized software program on students' achievements. Students who were taught by technology gained higher grades than students who were taught by the traditional teaching method (Abu Nabah, 2012).

Technology use in Saudi Arabia has increased because of government's support and the Ministry of Education ten-year plan. Projects such as Noor, Jusur, Tajseer, and WATANI have integrated the use of technology in Saudi Arabia's education. Also the king of Saudi Arabia played an important role to bring technology to schools and institutions (Al-Khalifa, 2010; Alruwais 2011; Zouhair 2010). However, teachers were not prepared to integrate technology in their courses because they needed training on technology use (Al-Mekhlafi, 2004; Barnawi, 2009). The studies have shown that teachers lacked enough technology use and experience. Many teachers have not used technology in their classroom and they have not used technology to communicate with their students (Al Asmari, 2011; Al Shawi & Alwabil, 2012).

Teachers need to be more active in using technology. Many researchers have indicated that some barriers prevented teachers from using technology. There was a specific budget for technology in school or a lack of school funds to get hardware. Other barriers were a lack of specialist trainers to train teachers and students, teachers' busy schedules, teachers' lack of confidence, and lack of skills in technology use. Lack of awareness among teachers about the benefits of technology was also identified as a barrier (Al Alwani & Soomro, 2010; Bingimlas, 2009). The research also showed that the beginner teachers of 1-5 years of teaching experience used more technology. That meant improving in teachers' skills in using technology would be better to start at teacher

training colleges. The new instructional programs, such as the Jusur program, created by the Ministry of Education, have helped teachers improve their experiences in using technology (Al Asmari, 2005; Hussein, 2011). Obviously, the ten-year Ministry of education plan achieved some of its aims and teachers just need more time to handle technology issues in their classroom. Teachers could be competent in using and integrating technology in their courses with good training programs.

CHAPTER 3

Research Design

This chapter presented the methodology that was implemented in this study. It described the research design and methods used to explore the experiences and views of faculty members towards technology integration at four institutions in Saudi Arabia. The chapter consisted of the following sections: 1) purpose of this study, 2) reason why the researcher chose the survey method, 3) the participants' demographics, and 4) description of the survey instrument showing how the survey was developed and then fine tuned. All the research procedures were explained to provide an accurate account of the research design process. At the end of this chapter, the data analysis plans were explained.

The Purpose of This Study

Pre-service teachers' institutions are the places to determine quality of future teachers in each country. These institutions and their faculty are expected to build new generations of teachers who will be able to meet the need of today's classroom. They should provide pre-service and in-service teachers with advanced technologies, new teaching methods, and good training programs that qualify them to be teachers of the new generation of students whom as Prensky (2008) named "digital learner" (p. 1).

In Saudi Arabia, since 2003 the government has opened around 11 new pre-service teacher institutions. These institutions have provided advanced technologies that can serve both the faculty and students. The Ministry of Higher Education in Saudi Arabia now focuses on how to merge in its institutions these advanced technologies such as, smart board, learning management system, and e learning. On the other hand, there are a limited number of qualified faculty who are equipped to teach these advanced

technology. Also there are some faculty who still believe in the old teaching methods. They do not make an effort to integrate technology in their courses due to their wariness in technology, or their lack of expertise in using technology.

As a result, this study aimed to investigate the current status of technology integration in pre-service teachers training programs and the faculty's experiences in using technology in Saudi Arabia. This study examined the instructors' views about the use of technology in their courses.

Selection of Research Method

In this study, the researcher chose a survey method to collect data in order to identify the instructors' views about the use of technology in their courses, and to find out the barriers that could limit their usage of technology. The survey included 22 questions to address the research questions. The researcher conducted the study in three different cities in Saudi Arabia, where five Saudi's institutions are located with pre-service teachers institutions.

The researcher developed a survey to collect data about the status quo of technology use, and barriers of technology use in Saudi Arabia. As the researcher summarized in Chapter Two, several similar studies used a survey design (Al Asmari, 2005; Al Asmari, 2011; Albalawi, 2007; Al-Mekhlafi, 2004; Barnawi, 2009; Hussein, 2011; Abu Naba'h, 2012; Al Shawi and Alwabil, 2012; Albalawi, 2007; El Semary, 2011; Al Alwani and Soomro, 2010). Those studies investigated technology use, and barriers of technology use in education in different areas on learning setting.

Due to the long distance between United States and Saudi Arabia, the researcher's friends, who have had good experiences with the survey method before, delivered the survey of this study to the five Saudi institutions.

Participants

The participants of this study included the faculty of the five institutions in the three different cities in Saudi Arabia. The first institution was King Saud University (KSU), which established in 1957. It is located in Riyadh city, which is the capital city of Saudi Arabia. In 2009-2010, it ranked as one of the best 200 universities around the world (World University Rankings, 2010). The colleges of this institution categorized into four sections, Colleges of Humanities which includes Teachers College and College of Education, Colleges of Science, Colleges of Health, and Community College. The number of faculty in this institution is more than 6500 male and female faculty. In addition, this university had more than 73000 students who enrolled in 2010 (The National Commission for Academic Accreditation & Assessment, 2010).

Due to the importance of KSU in Saudi Arabia and its large number of students and faculty, the researcher chose it to be one of the important institutions in this study. The targeted faculty for this study were males from the College of Education.

The second institution that participated in this study was Teachers College in Riyadh (T.C.R), which is a part of the KSU but the researcher divided them for the following reasons. In Saudi Arabia, Teachers Colleges are just for elementary school teachers, but universities are usually for secondary schools teachers. So T.C.R is only for elementary school teachers. In addition, T.C.R has its own campus and it located in different area of KSU. The targeted faculty for this study were males.

The third institution that participated in this study was Imam Mohamed ben Saud University (Imam. U), which was established in 1974. It is also located in Riyadh city. Imam. U was an Islamic institution. It has eleven colleges, five of them in Riyadh city and six colleges out of Riyadh. In this university non –Arabic speakers have a chance to learn Arabic because the Arabic Language Institute is designed specifically for them. The number of faculty is around 2850 faculty members with about 37,450 students. The targeted faculty for this study included both males and females.

The fourth institution that participated in this study was Jeddah Teacher's College (J.T.C), which is a part of King Abdulaziz University (KAU). This college was founded in 1989 and it is located in Jeddah, which is the second largest city in Saudi Arabia. This college has joined to KAU, which considers the second largest university in Saudi Arabia with 69,919 students and approximately 3635 faculty members, in 2009. After 2009, J.T.C has developed dramatically with highly qualified faculty and advanced technology. The researcher chose this college because he graduated from it in 2005. The targeted faculty for this study were males.

The fifth institution that participated in this study was Albaha University, which was founded in 2006. It is located in Al Baha, which is a south city of Saudi Arabia. The number of enrolled students is around 21,200 with more than 800 faculty members. This university has four different campuses in four different areas in Al baha city. The targeted faculty are both males and females of a female college, which is located in Al Mandag district. The researcher chose this university because of its recent emergence.

The researcher chose these participating institutions because they include different levels of institutions in different demographic areas. Some studies mentioned in

Chapter Two stated that Saudi culture could affect teachers' beliefs and usage of technology, so the researcher chose three different cities in three different regions of the country to conduct the survey. The researcher aimed to identify if differences would be generated regarding demographic location and faculty gender in technology integration and usage in their instruction.

Survey Instrument Development

The survey development went through four stages: 1) writing first draft, 2) translating the survey into Arabic language, 3) conducting a pilot study, and 4) finalizing the last draft. The researcher developed the first draft based on what was learned from Literature Review. The items of the survey were divided into five parts. The first part was about the participants' demographics including gender, age, years of teaching experience, subject(s) each participant teaches, and their highest level of education. The second part was about the participants' access to technology, including the accessibility of technology in faculty homes, in faculty offices, and inside their classrooms. Also it contained students' accessibility of technology in the classroom, and the availability of multi-media equipment in the classroom. The third part was about faculty's expertise in technology. It began with a question about faculty's preparation in using technology in the classroom. It also was to obtain the information about faculty's average usage of some technology, such as email, smart board, and social media, for instructional purposes, and faculty's use other technologies such as, word processing, projector, and multimedia programs. The fourth part was to collect data about faculty's perceptions of integrating technology in the classroom. This part included questions regarding the benefits of technology integration on students' motivation, academic achievements, and their interactions with instruction.

It also contained the questions to investigate if integrating technology could improve teaching skills or distract students from academic learning. The last part of the survey was designed to identify barriers and factors that could limit the faculty of integrating technology in their classroom.

The survey was translated into the Arabic language because all the participants were faculty of four Saudi institutions. Since they are all Arabic native speakers, the researcher translated the survey into Arabic.

After the instrument was refined and translated into Arabic, a cover letter and the survey instrument were delivered to seven participants as a pilot study to test clarity and validity of the survey. The participants were faculty members in Saudi Arabia and they offered great feedback. As a result, modifications were made. First, the researcher modified some questions because they confused the participants. Second, some of the participants suggested that more options may be needed for the survey question that was about barriers of integrating technology, so two more options were then added to the survey. They were the lack of good curriculum that support technology and the lack of institutional administrator's support. Also one of the pilot study participants noticed the tables used in the second part of the survey were not clear, so the color of tables were changed to make them easier to understand. Third, a major was added to the list of majors that faculty teach according to the feedback. It was a constructive suggestion because this major is so important in my country. I made sure that these participants were not a part of the formal study. The finalized survey in both Arabic and English can be seen in the Appendix.

Procedures

This study was carried out through stages. The first stage was conducting a literature review. It was written with studies to address the research questions and to enhance the significance of technology integration in the classroom. The researcher at this stage thoroughly examined several studies and sources that showed the importance of technology integration in education, the challenges that limited faculty and teachers from using technology, and the current status of technology use in Saudi Arabia and other countries. The second stage was a survey development as stated in the previous section. Before the survey was sent out to the participants, approval for the study was obtained from the Institutional Review Board (IRB) for Human Subjects Research, Eastern Washington University. This approval is included in the Appendix.

Afterwards, the survey was sent to all the targeted institutions in Saudi Arabia. When the survey was done, the researcher received the completed surveys by mail.

Data Analysis Plan

Data were entered on a spreadsheet application (Microsoft Excel). Then the SPSS program was used for data analysis. The researcher would use descriptive statistics for data analysis to present the demographics of the participants and status of technology usage. In addition, chi-square distributions would be used to present a comparison of the responses based on the participants' demographics. In the end of this study, the researcher would report the findings and offer suggestions for the future use of technology in pre-service teachers' institutions in Saudi Arabia.

CHAPTER 4

Data Report

This chapter focused on data reporting. The chapter was organized into four sections according to the survey structure and data type. The data collection process was presented in the first section. The second section described demographics of the participants. The third section consisted of data of technology usage reported by the participating faculty. The fourth section reported inferential findings from the Chi-square tests.

Data Collection

After being translated into Arabic one hundred surveys were sent out to five institutions in Saudi Arabia in January 2013. Each institution distributed the survey among the faculty members of the department of education. The faculty answered the survey anonymously and returned it to their department. Two weeks later the completed surveys were collected from each of the departments. Eighty faculty members participated in this study with a return rate of 80%.

The data were entered into an Excel file and then imported to SPSS for data analysis. Descriptive statistics were made to report frequency of the responses. Chi-square tests were conducted to explore relations between the participants' perceptions and their demographics.

Demographics of the Participants

There were seven questions in the survey about the demographics of the participants: gender, age, schools the participants graduated from, the institution where

the participants teach, years of teaching, subject areas, and the highest level of education the participants received. These results were reported in Table 1.

Table 1. Demographic of the Participants.

Variable	Category	Frequency	Percent (%)
Gender	Male	55	(68.6%)
	Female	25	(31.3%)
Age	24-35	32	(41.1%)
	35-45	30	(36.2%)
	45+	18	(22.5%)
Teaching Experiences	3 or less	23	(28.7%)
	4 - 6	15	(18.8%)
	7-10	14	(17.5%)
	11-20	18	(22.5%)
	20 +	10	(12.5%)
Academic Level	BA	13	(16.3%)
	Master	34	(41.3%)
	PHD	33	(40.1%)
Teaching Area	Math & Science	26	(32.6%)
	Language & Art	13	(16.3%)
	Islamic Studies	6	(7.5%)
	Technology	13	(16.3%)
	Teaching Methodology	22	(27.5%)
Participants' Institutions	Albaha University	20	(25.0%)
	Imam University	18	(22.5%)
	King Saud University	17	(21.3%)
	Teacher College Jeddah	14	(17.5%)
	Teacher College Riyadh	11	(13.8%)

Among the 80 participants of this study, 55 (68.6%) were males, and 25 (31.3%) were females. A quarter (20 participants) were from Albaha University, 18 (22.5%) from Al Imam University, 17 (21.3%) from King Saud University, 14 (17.5%) from the Teachers College of Jeddah, and 11 (13.8%) from Teachers College of Riyadh.

Most of the participating faculty members 62 (76%) were between the ages of 24-45. Fifty-two participants (65%) had less than ten years' teaching experience while 28 (35%) had more than 11 years' teaching experience. A small number of the participants 13 (16.3%) had a bachelor's degree, 34 (41.3%) held a Master's degree, and 33 (40.1%) had a Doctoral degree. Almost 44% of the participants were faculty in the areas of technology and/or pedagogy, 26 (32.6%) were math and science educators, while 13 (16.3%) were faculty of languages and art. Six (7.5%) participants were faculty of Islamic studies.

As shown in Table 2, more than half 44 (55%) of the participants graduated from Saudi's institutions, while 35 (43.8%) received their degrees outside of Saudi Arabia. Among the faculty members from the five institutions, Albaha University was the only institution that had two-third and one-third split between those who were educated domestically (60 %) and those who were educated internationally (35 %). Of the other four institutions, two had faculty members mainly (90 %) from Saudi institutions, and the other two institutions had a great majority of the faculty members receiving their degrees from international institutions. King Saud University was ranked as one of the best 200 universities around the world in 2009-2010 academic years. In particular it had 16 out of 17 (94 %) participants secured their degrees abroad.

Table 2. Demographic of the Participants.

Institution	Graduated from Saudi	Graduated from non Saudi
Albaha. U.	12	7
Imam. U.	17	1
KSU	1	16
T.C.R	10	2
T.C.J	4	10
Sum	44 (55%)	35 (43.8%)

Note: Albaha.U. = Albaha University; Imam.U. = Imam Mohamed ben Saud University; KSU = King Saud University; T.C.R = Teacher College in Riyadh; T.C.J. = Teacher College in Jeddah.

Usage of Technology

Four survey questions were to investigate the statue of technology use by faculty members. When the participants were asked where and how often they used technology for instructional purposes, three options were provided: home, office, or classroom. Twenty-six participants (32.5%) never used the computer in their classroom. Thirty-seven participants (46.3%) listed the classroom as the least used place, spending just five hours or less per week in the classroom. Thirty-three participants (41%) indicated they used the computer most at home with more than 40 hours a week.

The participants showed a lack of computer use in their office too. Of the data 18 (22.5%) participants never used the computer in their office, while 34 (42.5%) of the participants listed the office as the second least used place, spending just five hours or less per week in the office. Overall, there was a lack of technology use in the participants' offices and classrooms and the participants liked to use the computer more in their home. Table 3 shows the percentages of participants' usage of the computers in the three locations.

Table 3. Places of Using Instructional Computer.

Place	Places of using instructional computer				
	Percent (%)				
	Never	1-5 h/w	6-10 h/w	11-20 h/w	20+
Home	11.3%	30%	17.5%	15 %	26.3%
Office	22.5%	42.5%	18.8%	10%	6.3%
Classroom	32.5%	46.3%	11.3%	6.3%	3.8%

Regarding the technology tools that education faculty could use Email, social media, smart board, computer, and Internet were provided for options in the survey. The participants were asked to mark those that were applicable in their teaching. The five most used instructional tools (combining the responses of “often” and “sometimes”) were, Email (95%), computer (89%), Internet (84%), social media (64%), and smart board (45%). Table 4 shows the frequencies of the participants’ using the tools for instructional purposes.

Table 4. Usage of Technology Tools for Instructional Purposes.

Category	Usage of technology tools for instructional purposes			
	Percent (%)			
	Never	Rarely	Sometime	Often
Email	2.5%	2.5%	18.8%	72.2%
Social media	12.5%	17.5%	16.3%	47.6%
Smart board	26.3%	21.3%	15%	30%
Computer	6.3%	2.5%	15.5%	73.8%
Internet	8.8%	6.3%	11.3%	72.6%

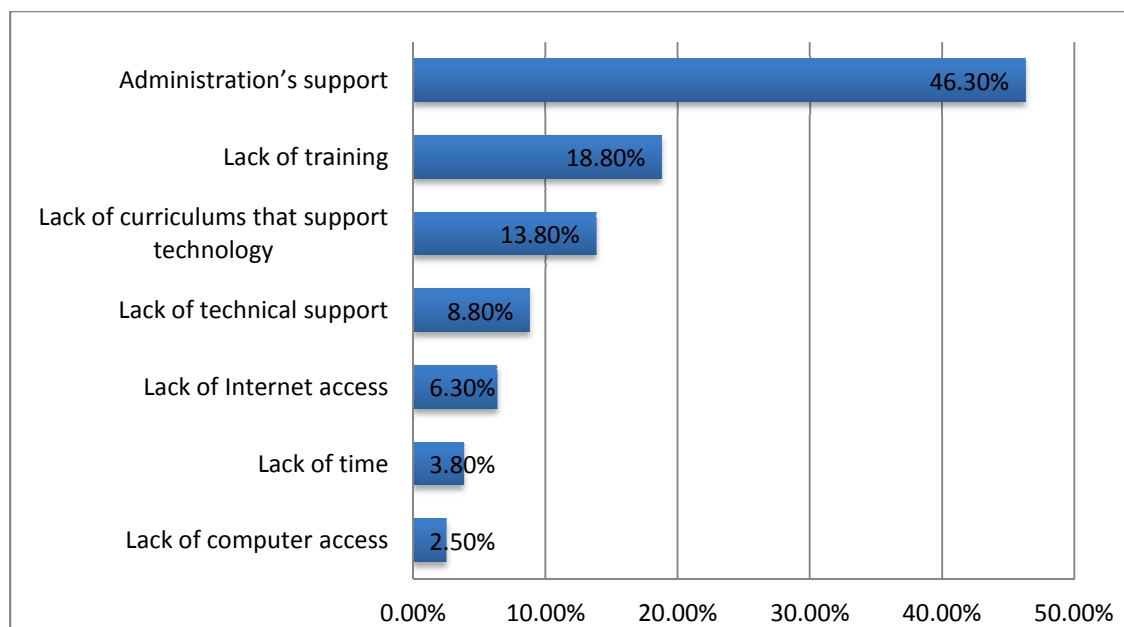
The participants were asked to self assess on a 4-point Likert-scale (1 as “Beginner” and 4 as “Expertise”) their level of technology expertise with seven different technology applications. Eighty-five percent of the participants (combined “advanced” with “expert”) assessed their best expertise in receiving and sending emails, followed by word processing 60 (75%), PowerPoint 55 (68.7%), and using smart board 45 (56.3%). On the other hand, multimedia 35 (44%) was marked as their lowest level of expertise. See Table 5.

Table 5. Level of Technology Expertise

Category	Level of technology expertise			
	Percent (%)			
	Beginner	Intermediate	Advanced	Expert
Word processing	3.8%	20%	40%	35%
PowerPoint	6.3%	23.8%	40%	28.7%
Multimedia	15.1%	28.7%	28.7%	20%
Social media	10.1%	21.3%	35%	30%
Receiving and sending email	5%	8.8%	35%	50%
Projector	3.8%	25%	33.8%	33.8%
Smart board	30%	26.3%	22.5%	18.8%

The data in Figure 1 ranked the top three barriers that could prevent educators from integrating technology in their courses. The most identified barrier was lack of administration’s support 37 (46.3%), 15 (18.8%) ranked lack of training as the second greatest barrier, and lack of curriculum that supported technology was ranked as the third greatest barrier 11 (13.8%).

Figure 1. Barriers of Integrating Technology.



Inferential Data Report

A number of Chi-Square tests were conducted to compare the participants' responses according to their gender, age, school where they received their terminal degrees, years of teaching, subject areas they taught, highest educational level they received, students' accessibility to internet in the classroom, and multimedia availability in the classroom. Five statements were provided to explore the participants' perceptions on benefits of using technology in instruction. The statements were whether technology can: 1) be interesting to students, 2) motivate students, 3) increase students' grades, 4) improve students' interaction with teachers, and 5) improve teaching skills. There was also a statement about concerns with using technology in a classroom: Can technology distract students from academic learning? Three-level Likert scales (Yes, Maybe, No) were provided. The participants to choose one of the three that best represented their perceptions.

According to the chi-square tests' results, there were no statistical significant differences shown based on the participants' gender, years of teaching, educational level, students' accessibility to Internet in the classroom, and multimedia availability in the classroom. However, there were several statistically significant differences shown. One statistically significant difference ($p=0.00\%$) was the relation between the participants' age and their perceptions of using technology to motivate students. As shown in Table 6, 90 % of the participants had a positive attitude toward using technology to motivate students, while 10 % did not. Although the significant difference was between the age group (35 to 39 years old) and the other age groups, it is difficult to generalize the difference due to the small group size of 6 participants. Thus, further study on this phenomenon is needed.

Table 6. Motivating Students by Technology Use.

Age	Can technology motivate students?		Participants	P. Value 0.01
	Maybe	Yes		
24-29	0 (0%)	17 (100%)	17	
30-35	1(6.7%)	14 (93.3%)	15	
35-39	3 (50%)	3 (50%)	6	
40-45	3 (13%)	20 (87%)	23	
45+	1 (5.6%)	17 (94.4%)	18	

Another statistically significant difference ($p= 0.00\%$) was regarding using technology to make instruction interesting to students. As shown in Table 7, 93.3% (41 out of 44) of the participants who received a degree domestically agreed with the

statement, while only 77.1% (27 out of 35) of the participants who graduated abroad agreed.

Table 7. Attracting Students by Technology.

Institution Graduated	Can technology be interesting to students?		Participants	P. Value 0.00%
	Maybe	Yes		
Saudi institution	4.5%	93.3%	44	
Non Saudi institution	22.9%	77.1%	35	

Regarding using technology to improve teaching skills, the same pattern appeared between those received their degrees domestically and those abroad. More participants who graduated domestically showed a positive perception 39 (88.6%) than the participants who graduated abroad 29 (82.9%). See Table 8.

Table 8. Improving Teaching Skills by Technology.

Institution Graduated	Can technology improve teaching skills?			Participants	P. Value 0.00%
	No	Maybe	Yes		
Saudi institution	2.3%	9.1%	88.6%	44	
Non Saudi institution	0	17.1%	82.9%	35	

In response to the question: Could technology make teaching more interactive with students? 90.5% of the participants who had a computer for instructional purposes agreed with the statement, and only 50.3% of the participants who did not have a computer agreed. See Table 9.

Table 9. Can Technology Make Teaching More Interactive with Students?

Computer	Can technology make teaching more interactive with students?		Participants	P. Value 0.01
	Maybe	Yes		
Faculty with computer	6.8%	90.5%	74	
Faculty without computer	33.3%	50.3%	6	

As to whether or not technology can be a distraction from academic learning, there was a statistically significant difference shown between the same two groups. More than half of all participants 42 (52.5%) indicated that using technology could not be a distraction, and 32 (40 %) were not sure. Also more participants who graduated domestically had a positive perception 24 (54.5%) than the participants who graduated abroad 18 (51.4%). In addition, five of the participants (14 %) who graduated abroad had a negative perception about the impact of technology. See Table 10.

Table 10. Technology and Distraction.

Institution Graduated	Can technology be distractive?			Participants	P. Value 0.01 %
	No	Maybe	Yes		
Saudi institution	54.5%	45.5%	0	44	
Non Saudi institution	51.4%	34.3%	14.3%	35	

When the participants were asked if they were interested in integrating new technology into their courses, the responses from the two groups showed another statistically significant difference. The majority of the participants 71 (88.8%) indicated

that they were interested in doing so, while only 8 (10%) were not sure. However, more participants who graduated domestically had a positive perception 42 (95.5%) than the participants who graduated abroad 29 (82.9%). See Table 11.

The results from the Chi-square tests showed that more participants who graduated domestically had positive perception and belief in technology than the participants who graduated abroad. That appears in Tables 7, 8, 10, and 11 respectively.

Table 11. Integration New Technology.

Institution Graduated	Integration of new technology		Participants	P. Value 0.00%
	Maybe	Yes		
Saudi institution	4.5%	95.5%	44	
Non Saudi institution	17.1%	82.9%	35	

Another statistically significant difference ($p= 0.01\%$) was detected between the institutions that are located in different cities in relation to their perceived preparation for using technology in the classroom. As shown in Table 12, in general, most of the participants 59 (73.3%) viewed themselves well prepared, while 19 (23 %) did not. Actually, more participants 15 (88 %) from King Saud University thought they were prepared with using technology than the faculty from the other three participating institutions. Although more King Saud University's participants assessed themselves well prepared with technology usage, a larger number of them held a negative perception toward the benefit of using technology. Moreover, compared with the participants from the peer institutions, the smallest percentage of faculty members from Imam Mohamed University thought they were prepared well for technology use.

Table 12. Faculty Preparation for Using Technology by Institution.

Institution	Faculty preparation for using technology					Participants	P. Value 0.01
	Missing data	No	Little	So-so	Very well		
Albaha.U.	0	5%	10%	60%	25%	20	
Imam.U.	0	16.7%	38.9%	22.2%	22.2%	18	
KSU	0	5.9%	5.9%	47.1%	41.2%	17	
T.C.J	14.3%	14.3%	14.3%	21.4%	50%	14	
T.C.R	0	0	0	45.5%	36.4%	11	

A statistically significant difference ($p = 0.01\%$) was revealed between the participants from different subject areas regarding their preparation for using technology. As it could be predicted, all the participants 13 (100%) from the technology field thought they were well prepared, and 88.4% math and science participating faculty thought so. Unfortunately only 57.1% participants who taught pedagogy thought they were prepared well. The least technology prepared participants 5 (83.3 %) were faculty who taught Islamic Studies. See Table 13.

Table 13. Faculty Perpetration for Using Technology by Subjects.

Subjects	Faculty perpetration for using technology				Participants	P. Value 0.01
	No	Little	So-so	Very well		
Math&Science	7.6%	0%	53.8%	34.6 %	26	
Languages&Art.	7.6%	15.3%	69.2%	7.6%	13	
Islamic Studies	16.6%	66.6%	0 %	16.6%	6	
Technology	0 %	0 %	30.7%	69.2%	13	
Teaching Methodology	14.2%	28.5%	23.8%	33.3%	21	

CHAPTER 5

Findings and Discussions

This chapter included four sections. An overview of the study was conducted and the findings were addressed in the first section. A discussion of the results of the four research questions was made in the second section. Conclusions of the study finding were presented in the third section. Recommendations were provided based on the study findings in the last section.

Overview of the Study

The purpose of this study was to investigate the current status of technology integration in Saudi Arabia's pre-service teacher training institutions and the faculty's experiences and perceptions in using technology in the pre-service teacher training institutions. Also, this study aimed to explore the barriers that prevented the faculty from integrating technology into their courses.

Of the 100 surveys sent out, a total of 80 responses were received from five pre-service teacher training institutions of Saudi Arabia. Of these responses, 20 (25%) were from Albaha University, 18 (22.5%) were from Al Imam University, 17 (21.3%) from King Saud University, 14 (17.5%) were from the Teachers College of Jeddah, and 11 (13.8%) were from Teachers College of Riyadh.

Four research questions were formulated to reach the study purpose. The research questions were:

- 1- What is the impact of technology integration in Saudi Arabia's teacher training?
- 2- What is the status quo of technology use by faculty in Saudi Arabia's teacher training programs?

- 3- What are the barriers to integrating technology in teacher training courses?
- 4- To what extent can teachers in Saudi Arabia handle issues of technology use in their classroom?

Discussions of Findings

In this section, the findings of the study were discussed by research questions.

Research question 1 was, What is the impact of technology integration in Saudi Arabia's teacher training? The participants answered this question mainly in a positive perspective. They strongly agreed with the positive of impact of technology integration: technology integration can motivate students, can be interesting to students, can increase students' grades, and can improve teaching skills. These results were similar to the research findings that were indicated in Chapter Two (Abu Naba'h, 2012; Schacter, 1995; Sivin-Kachala & Bialo, 1998)

An interesting finding was revealed regarding the statement: can technology be distractive from academic learning. There appeared a negative perception especially from the faculty who graduated abroad. Most thought that it would distract students from academic learning. Fewer used technology in their teaching although they viewed themselves well equipped with technology expertise. This result may be due to the faculty's suspicion about using technology in the classroom.

Al-Mekhlafi (2004) reported faculty's concerns with students' inappropriate use of technology in general. However, this study specified the gap between the faculty who received a degree domestically and those who did internationally. The reason for this phenomenon is worth further study.

Research question 2 was, What is the status quo of technology use by faculty in Saudi Arabia's teacher training programs? Technology use by faculty in Saudi Arabia's teacher training programs was very low. A majority of the faculty (62.5%) only used an instructional computer from one to five hours a week, and 53.8% used it in their office less than five hours a week. This number of usage is very low especially when we consider pre-service teacher training institutions. Preparing students with advanced technology should be one of their roles. These results concurred a similarity with another research study by Alasmari (2011).

With this great lack of technology use in instruction, the tools that were used for instructional purposes were basic: Computers, Internet and Emailing. There was a lack of using smart board or social media. Unfortunately this finding just coincided with the findings by Al Shawi and Alwabil (2012). The results imply an urgent need to encourage faculty members to be trained to integrate advanced technology such as smart board and social media because these are considered important tools for future teachers.

This study showed that the participants had not applied much technology very much into their instruction. A majority of the participants (85%) from Albaha University did not use computers for instructional purposes in their courses although the university was newly founded and has advanced facilities. In Imam Mohammed University, 77.8% of its participants did not use computer in the classroom. This may be due to their focus on teaching the Islamic courses and the faculty members who taught Islamic courses did not think they were prepared with technology. An interesting contrast was between the faculty from Imam University and those from King Saud University. The faculty members from King Saud University were well prepared with technology use and

received their advanced degrees internationally, almost the same percentage of its faculty had not applied technology in their courses.

Teacher Colleges in Saudi Arabia prepare only elementary school teachers. Preparing these teacher candidates with advanced technology is so important because they will teach a new generation who will grow up with technology. The disappointing finding of this study was more than 90% of the participants from Teacher College of Riyadh did not use computers for instructional purposes in their courses, while 71.5% of the participants from Teacher College of Jeddah did not.

The level of faculty preparation with using technology is important to merge technology in the classroom. In the study, a statistically significant difference ($p= 0.01\%$) was detected between the institutions that are located in different cities in relation to the faculty's self-assessed preparation for using technology in the classroom. Three quarters of faculty from Imam Mohammed University thought they were not prepared with technology use. In contrast, faculty of the other participating institutions felt better prepared for technology use. For example, King Saud University had well prepared the faculty (84% indicated so) with technology use. This may be because 94.4% of its participants graduated abroad. However, their good preparation did not reflect in their instructional practice. More than seventy percent of them did not use technology much in their courses.

Research question 3 was, What are the barriers to integrating technology in teacher training courses? The participants ranked lack of administrative support as the major barrier, lack of training as the second greatest barrier, and lack of curriculum that supported technology as the third greatest barrier. These results reinforced the findings

from many other studies (Al Alwani & Soomro, 2010; Albalawi, 2007; Al Kindi, 2007; Bingimlas, 2009; Kadzera, 2006; Suleman et al, 2011).

All of these studies from different countries have indicated the same barriers that prevented faculty from technology application in education. However, with a Ten Year Plan 2004-2014, which was launched by the government of Saudi Arabia and the Ministry of Education, these barriers should be alleviated sooner than later. As indicated in Chapter Two, one of the Ten Year Plan's goals is to reform and develop education by using technology in order to change and improve the educational system (Ministry of Education, 2005).

Research question 4 was, To what extent can teachers in Saudi Arabia handle issues of technology use in their classroom? This study investigated the faculty's level of expertise with seven different instructional tools. Eighty-five percent of the participants assessed their best expertise in receiving and sending emails, followed by word processing (75%), PowerPoint (68.7%), and smart board (56.3%). On the other hand, multimedia was marked as their lowest level of expertise (44%).

Some previous research studies that are included in Chapter Two had similar results (Al Asmari, 2005; Isleem, 2003).

The educators' skills with only computer and basic Internet applications more than other instructional tools may be due to the frequent application of these technology tools in their daily lives, and lack of practice of other tools in their professional careers.

Conclusion

Overall, the faculty of the five participating institutions had a positive perspective toward technology integration in teaching and learning process. The study also revealed

Saudi faculty's lack of technology use in their teaching. The faculty members expressed their willingness to use technology and that they possessed necessary skills to use technology in their courses, but they needed administrative support, more training programs in using technology, and the appropriate curriculums that could support this technology integration.

Recommendations

Based on the findings of this study, some recommendations were presented.

- 1- Further studies should be conducted in Saudi universities, especially new universities that were founded after the year of 2000 because these institutions have the most up-to-date facilities.
- 2- This research study focused only on faculty of Saudi teacher training institutions. It would be interesting to conduct comparative studies between pre-service teachers and in-service teachers.
- 3- To reform the Saudi education system, the Ministry of Education should begin with systematic training of faculty members in how to adapt to emerging technology and provide the appropriate curriculum that could apply technology into teaching.
- 4- Based on this researcher's experience in the United States, this researcher observed the phenomenon that some faculty did not use technology in their instruction but they put technology application in their assignments for students to do. The younger generations of students are interested in doing assignments through using technology. This practice can be adopted by the faculty in Saudi Arabia.

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Appendixes

Appendix A



Consent Form

November, 8, 2012

Dear Participant:

My name is Ahmed Alzahrani and I am a graduate student at Eastern Washington University. For my thesis, I am researching on instructors' perception about integrating technology in teachers' training programs in Saudi Arabia. I want to conduct a survey to find your perceptions and usage of technology in the classroom. Because you are instructors with years of teaching experience, I am inviting you to this research study by completing the attached survey.

It will take you approximately 8-10 minutes to complete the survey. In order to ensure that all information will remain confidential, please do not include your name when you answer the survey questions, offer your response honestly, and return the completed survey in two days. Your participation is totally voluntary and you have all the rights to refuse to answer any question that you are not comfortable with.

If you are not satisfied with the manner in which this study is being conducted, you feel free to contact me or Dr. Jane Liu, Eastern Washington University, Department of Education, USA.

Thank you very much for participating in this study.

Sincerely,

Researcher: Ahmed Alzahrani
Phone: 5098991928
Email: alwafey18@hotmail.com

Advisor: Dr. Jane Li
Phone: 5093597023
Email: JLiu2@ewu.edu

If you have any concerns about your rights as a participant in this research or any complaints you wish to make, you may contact Ruth Galm, Human Protections Administrator rgalm@ewu.edu.

Appendix B

Survey in English

Researcher: Ahmed Alzahrani

Advisor: Dr. Jane Liu

Integrating technology in Saudi's teachers program

This survey is designed to gather information on integrating technology in Saudis teachers' training programs. I am conducting a pilot study to find the effectiveness of this study. All individual responses are important for me to improve this survey and then to start my survey in Saudi Arabia. Please, answer the following questions. Remember, this survey is voluntary, so if you are uncertain of your answer, please circle the best option provided, or may leave it blank Thank you for assisting me in completing this survey.

PART ONE: Demographics

1. What is your gender?

A. Male	B. Female
---------	-----------

2. How old are you?

A. 20-29	B. 30-35	C. 35-39
D. 40-45	E. Over 45	

3. Did you graduate from a university in Saudi?

A. Yes	B. No
--------	-------

4. What is the name of the college where you currently teach?

A. Albaha University	B. Imam Mohammed ben Saud University
C. King Saud University	D. Teachers College of Jeddah
E. Teachers College of Riyadh.	

5. How long have you been teaching?

A. 1-3 years	B. 4-6 years	C. 7-10 years
D. 11-20 years	E. More than 20 years	

6. What subject do you teach?

17. Do you think using technology can increase students' grades?

1. No 2. Maybe 3. Yes

18. Do you think integrating technology can make your teaching more interactive with students?

1. No 2. Maybe 3. Yes

19. Do you think integrating technology in the classroom can improve your teaching skills?

1. No 2. Maybe 3. Yes

20. Do you think integrating technology in the classroom can be distracting from academic learning?

1. No 2. Maybe 3. Yes

21. If possible, do you like to integrate more technology into your teaching?

1. No 2. Maybe 3. Yes

<p style="text-align: center;">PART FIVE: LIMITING FACTORS IN USING TECHNOLOGY IN THE CLASSROOM</p>
--

22. Please rank the top three (1-3) factor that limit using technology in the classroom:

- A. Lack of institutional administrator's support.
- B. Lack of effective training
- C. Lack of time
- D. Lack of available technical support
- E. Lack of access to computer
- F. Lack of Internet access
- G. Lack of good curriculums that support technology
- H. Other (s) (please specify)_____

Appendix C

Survey in Arabic

بسم الله الرحمن الرحيم

أخي الفاضل.. أختي الفاضلة ..

السلام عليكم ورحمة الله وبركاته.

أنا الطالب أحمد عوض الزهراني مبتعث في الولايات المتحدة الأمريكية وأدرس في جامعة واشنطن الشرقية (Eastren Washington University) لمرحلة الماجستير في تخصص تقنيات التعليم وأقوم بإعداد دراسة للحصول على رسالة الماجستير والتي هي بعنوان (دمج التكنولوجيا في مؤسسات ومراكز إعداد المعلمين والمعلمات في المملكة العربية السعودية) هذه الدراسة تتطلب تصميم إستبيان لتحديد الحالة الراهنة لأعضاء هيئة التدريس مع استخدام التكنولوجيا ومدى خبرتهم في استخدامها، هذه الدراسة صممت أيضاً لمعرفة وجهات نظر أعضاء هيئة التدريس حول استخدام التكنولوجيا وماهي العوائق التي تحد من استخدامها لها.

أرجوا منكم أن تقوموا بتعبئة الإستبيان مع مراعاة مايلي:

- لن يأخذ الأستبيان من وقتك اكثر من 7 دقائق.
- هذا الإستبيان مخصص لأعضاء هيئة التدريس بالجامعات والكليات السعودية.
- هذا الإستبيان عمل تطوعي ولا يُجبر احد على تعبئته من غير رغبة.
- إجاباتكم مهمة جدا في تحديد مشكلة الدراسة وتحديد النتائج والحلول المناسبة لتسهيل إستخدام التكنولوجيا في التعليم.
- جميع البيانات المُدخلة ستكون سرية وستستخدم فقط من قبل الباحث والمشرف الدراسي لغرض البحث، كما أن هذا الإستبيان لا يتطلب ذكر أسماء المشاركين.
- لك الحق في المشاركة في البحث أو عدم المشاركة كما أنه يمكنك التوقف عند أي سؤال وعدم اكمال البحث إذا لم يعجبك.
- إذا رأيت بأنك لم تعطى حقوقك كاملة في تعبئة الإستبيان فيمكن التواصل مع ادارة الحماية البشرية على العنوان التالي:

Ruth Galm, Human Protections Administrator

rgalm@ewu.edu

Sincerely,

Researcher: Ahmed Alzahrani
Phone: 5098991928
Email: alwafey18@hotmail.com

Advisor: Dr. Jane Liu
Phone: 5093597023
Email: JLiu2@ewu.edu

الجزء الثاني: إمكانية استخدام التكنولوجيا

8. هل لديك كمبيوتر مخصص للأغراض التعليمية؟

1. نعم
2. لا

9. عبّر/ي عن مدى استخدامك لهذا الكمبيوتر في الأماكن التالية بوضع إشارة واحدة فقط في المكان المناسب:

0- ساعة في الاسبوع	1-5 ساعات في الاسبوع	6-10 ساعات	11-20 ساعة	21 ساعة أو أكثر بالاسبوع	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. في المنزل
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. في المكتب
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. في الفصل

10. هل يستطيع الطلاب/الطالبات الوصول للإنترنت في الفصل؟

1. نعم
2. لا

11. هل يوجد أي أجهزة خاصة لإستخدام الوسائط المتعدده في فصلك/ك؟ (على سبيل المثال : أجهزة لتسجيل الصوت أو الفيديو)؟

1. نعم
2. لا

الجزء الثالث: الخبرة في استخدام التكنولوجيا

12. هل تعتقد/ين بأنك معد/ه مسبقاً لإستخدام التكنولوجيا في التعليم؟

1. لم يتم إعدادي
2. إعدادي ضعيف
3. إعدادي متوسط
4. إعدادي ممتاز

13. عبّر/ي عن مدى استخدامك للتقنيات التالية للأغراض التعليمية فقط بوضع إشارة واحدة فقط في المكان المناسب:

أبداً	نادراً	أحياناً	غالباً	دائماً	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. البريد الإلكتروني (الإيميل)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. مواقع التواصل الإجتماعي

1. لا 2. ربما 3. نعم

21. إذا أمكن، هل تحب أن تدمج تكنولوجيا جديدة في تدريسك؟

1. لا 2. ربما 3. نعم

الجزء الخامس: العوامل التي تحد من استخدام التكنولوجيا في الفصول الدراسية

22. من فضلك، صنف من (1-3) أكثر الصعوبات أو التحديات التي تحد أو تُقلل من استخدامك للتكنولوجيا في فصلك الدراسي:

ملاحظة: رقم (1) أكثر تحدياً، ورقم (3) أقل تحدياً:

أ..... الإفتقار الى دعم إدارة المؤسسة التعليمية التي أعمل بها.

ب..... عدم وجود البرامج التدريبية المؤثرة والفعالة لتعلم كيفية إستخدامها.

ج..... الإفتقار الى المدة الزمنية الكافية لإستخدامها حيث أن وقت المحاضرة لا يكفي.

د..... الإفتقار الى الدعم الفني.

ه..... صعوبة الوصول الى الكمبيوتر.

و..... صعوبة الوصول الى الإنترنت.

ز..... الإفتقار الى المناهج التعليمية الجيده والتي تدعم إستخدام التكنولوجيا.

ح..... أخرى (من فضلك حدد)

(لكم مني خالص الدعاء وجميل الثناء على تعبئة الإستبيان)

Appendix D



Eastern Washington University

at Cheney and Spokane

MEMORANDUM

To: Ahmed Alzahrani, Department of Education, 312 WLM

From: Sarah Keller, Chair, Institutional Review Board for Human Subjects Research

Date: November 12, 2012

Subject: Expedited IRB Review of HS-4078 *Integration of Technology in Saudi Arabia's Teachers' Training Courses*

Thank you for your response to my memo of November 5. Your clarifications and revisions have addressed our concerns. Human subjects protocol HS-4078 *Integration of Technology in Saudi Arabia's Teachers' Training Courses* has been approved as amended. The signed copy of your approved application is enclosed.

Human subjects research approval granted by the IRB is good for one year from the date of approval, to November 12, 2013. If research is to continue, with no substantial changes, beyond that date, a renewal of IRB approval must be obtained prior to continuation of the project (contact OGRD for procedure). If, subsequent to initial approval, a research protocol requires minor changes, the OGRD should be notified of those changes. Any major departures from the original proposal must be approved by the appropriate review process before the protocol may be altered. A Change of Protocol application must be submitted to the IRB for any substantial change in the protocol. The Director, Grant and Research Development, or the Chair of the IRB will determine whether or not the research must then be resubmitted for approval.

If you have additional questions please contact me at 359-7039; fax 509-359-2474; email skeller@ewu.edu. It would be helpful if you would refer to HS-4078 if there is further correspondence as we file everything under this number. Thank you.

cc: R.Galm
J.Liu
R.Phillips
Graduate Office

Department of Geography and Anthropology

MS-52, 103 Isle Hall • Cheney, Washington 99004 • (509) 359-2433 • Spokane – (509) 458-6213
Eastern Washington University is an equal opportunity, affirmative action institution.

Vita

Author: Ahmed Awadh Alzahrani

Place of Birth: Al Khobar, Eastern Province, Saudi Arabia

Undergraduate School Attended: King Abdullaziz University-Teachers College

Graduate School Attended: Eastern Washington University

Degrees Awarded: Bachelor's degree, King Abdullaziz University, 2005.

Master of Education, Eastern Washington University, June 2013.

Honors and Awarded: King Abdullah scholarship to the United States 2010- 2013.

Outstanding Teacher for 2009-2010.

Professional

Experience: Taught as a primary school teacher, Saudi Arabia, 2006-2010.