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BLENDING LEARNING AMONG ADULTS IN SAUDI ARABIA

A Thesis
Presented to
Eastern Washington University
Cheney, Washington

In Partial Fulfillment of the Requirements
for the Degree
Master of Education

By Tumadher Abdulrahim Ekhmimi
Dr. Shelly Shaffer
Fall 2018

THESIS OF TUMADHER EKHMIMI APPROVED BY

Signature of Chair of Graduate Study Committee

Date

Signature of Second Member of Graduate Study Committee

Date

Signature of Third Member of Graduate Study Committee

Date

MASTER'S THESIS

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Abstract

The study was carried to determine the effectiveness of blended-learning among adults in higher education. The focus includes distinction between e-learning and traditional learning, features of blended-learning, contribution of technology in blended-learning, blended-learning and educational achievement and the relationship between blended-learning and student satisfaction. Saudi Arabia has not embraced the concept of blended-learning and adults studying in college are unable to successfully finish their studies since they haven't the flexibility that blended-learning offer while they are working or taking care of their families.

Blended-learning environments facilitate and support the education system due to efficient and timely feedback compared to conventional approaches. To investigate the topic, this study employed a survey approach and used both qualitative and quantitative methods. Study participants included a college student in the education department of a comprehensive university in the Northwestern United State.

According to the findings, the growth and penetration of technology across society have coincided with the desire to provide education to the student using other approaches rather than the traditional approach. In response to this, educational institutes are experiencing a shift in instructional platforms to enrich teaching and learning for a variety of needs and demands. The demand is mostly from employed individuals and those whose family commitment cannot allow them to attend classes or in the daytime hours. The application of the blended-learning approach, which integrates the advantages of traditional teaching with online learning, has drawn considerable attention from language teaching instructors and researchers. Blended-learning approach in the contemporary society is a powerful and useful online based learning platform,

which could enable them to get access to solid learning materials, discuss with their peers online, contact with their professors by e-mail and online discussion and self-assess their learning and monitor their progress.

The findings of this research show that compared with the traditional face-to-face learning model, many participants in my study preferred the blended-learning model. I found that blended-learning could better stimulate students' interest, foster their autonomous learning and collaborative learning, and prompt their confidence. Implications for the future of blended-learning in Saudi Arabian universities are promising because it allows the married students and those who have jobs to complete their studies.

Dedication and Acknowledgement

I would first like to thank my thesis advisor Dr. Shelly Shaffer in the Education department at Eastern Washington University. Dr. Shaffer was always available whenever I ran into a trouble spot or had a question about my research or writing. She steered me in the right direction whenever she thought I needed it.

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Finally, I must express my very profound gratitude to my parents, other family members, my loving husband Maher Taher and my kids Hamza and Taliyah for providing me with unrivalled support and continuous encouragement throughout my years of study and through the process of researching and writing this thesis. This accomplishment would not have been possible without them. Thank you.

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CHAPTER ONE

Introduction

Based on the experience I have gained in my master's degree program in the United States, I have chosen blended-learning to be my final project. I have had three required courses and one elective course in the blended model, and I feel very comfortable with this type of classes. I took three required courses as hybrid classes in my master's degree. The hybrid courses were very helpful to me because I have a family and I don't have that much time to go every day to school. I was able to do my assignments when my son and my husband went to sleep, and I am here without my mom or anyone to help me, so I need to do everything by myself: cleaning the house, cooking, and teaching my son not just English but also Arabic. I think this type of learning will help many students in my country who desire to complete their studies and cannot attend morning classes due to job and family commitments. The main reason as to why I selected this topic is because Saudi Arabia is my home country and there is no integration of hybrid learning in the universities. Therefore, I found this problem to be interesting for learners who have families and jobs.

I think this type of education can benefit to people who wish to learn while they continue with their work as well as to find time to take care of their families. This topic is critical, as it will help change the curriculum in the education of my country. Pursuing this question will help improve the perspective of different individuals on the issue of blended-learning as well as will give people a chance to complete their studies. I plan to submit my project to the Ministry of Education either locally or nationally in my country so that people including the state officials can realize the importance of blended-learning.

It is essential that the education system of my country is improved whereby we do not have to rely only on traditional classrooms but can integrate online classes.

The world has rapidly improved in the context of Information and Communication Technologies (ICT). The effects of these technologies are felt in many areas of the society and more specifically the education sector, which has brought new approaches towards teaching and learning processes. Blended-learning can also be termed, hybrid or mixed (O'Byrne & Pytash, 2015). In the context of information transfer and interaction methods, the strategy combines the better side of online learning and conventional means of education namely face-to-face. Face-to-face is a type of learning where students meet their instructors, share the same space, and meet at a particular time of the day. The sessions in this approach are synchronous, and communications technologies are not necessary (Manwaring, Larsen, Graham, Harrison, & Halverson, 2017).

According to Manwaring et al. (2017) online learning encompass real-time interactions and collaborations that take place within a period through online discussion boards, email, and others. The process allows the courses to be broken into modules, which contain learning contents and numerous activities that need to be completed in a specific amount of time. Each module could include text readings, PowerPoint presentations, and lectures containing information required to complete the assigned tasks. The mode of learning can be variable, and some of it can be achieved through discussions, simulations, papers, and projects.

In recent years, learning practices that encompass blending of online and in person strategies of teaching allow students to access learning materials using

technological tools. This means that it is not mandatory to attend classes; individual students can have access to documents when outside the course. Platforms such as Blackboard or Canvas are capable of supporting lessons, chat platforms, discussion groups, and sharing of presentations. In this way, blended-learning has a myriad of advantages compared to face-to-face-only or online only because it offers an opportunity for both face-to-face and online learning (Porter, Graham, Spring, & Welch, 2014). Blended-learning not only enables an environment where students experience flexibility and proper time management, it also cultivates an environment that fosters social interaction. Therefore, blended-learning is a style of learning among adults in higher education that combines online and face-to-face environments and thus benefits to educational institutions, instructors, and students (Johnson, Adams Becker, Estrada, & Freeman, 2015).

Researchers have revealed the fundamental reasons why many students and institutions recommend blended learning instruction, especially in colleges and universities. These reasons include improving student academic performance, increasing convenience and access to students, and offering a high level of effectiveness (Borokhovski, Schmid, Tamim, & Abrami, 2014). Although face-to-face or online alone approaches are useful, the blended approach offers more benefits to students and instructors. Studies have stated that in comparison to the face-to-face mode or online mode of learning among students, those who participated in blended-learning have shown a positive attitude toward technology-supported process and higher exam scores.

Furthermore, interaction in the online platform is essential as it supplies an individual with the required feedback and guidance in real time. The advantage of

blended-learning over other approaches includes flexibility about time and location where it takes place. For example, it is possible to share learning content and foster interaction among students whether inside or outside the classroom. As such, the environment in which it takes place provides an opportunity for ample time to deal with classes.

Therefore, it is evident that blended-learning is appropriate because it is an integration of both face-to-face and online methods in the learning process. Blended-learning is better than online or face-to-face only because blended learning provide sufficient opportunity for instructors to access features unique to both online and face-to-face delivery system. For example, in a class learner first complete an interactive online self-study self-paced lesson that presents guidelines and then is followed by a face-to-face class uses social presence to emphasize on some issues that were not well expressed online. Thus, using blending-learning allows the individuals to exploit the unique benefits of each than using one (Duart, Sancho-Vinuesa & Castano-Mounoz 2014; Verma, et al., 2015). On the other hand, we cannot forget the advantages of face-to-face learning only some of these advantages are; students can interact with each other, practice and help each other, learning from each other, also building a good relationship with others. Also, we can see the advantages of online learning only. Some of them are: the flexibility of the time and location, more comfortable environment, avoid commuting, improve the technical skill.

The current literature on blended-learning emphasizes why many students and learning institutions have chosen it over the conventional method of learning. Many scholars cite flexibility and the convenience of the online environment as the reason learners prefer the technique as compared to face-to-face. While this may be the case for others, it is not reflected in the case of adult learners who have many responsibilities such

as balancing their work and family roles with their studies. For adult students living far away from the university and faced with work and family responsibilities that prohibits them from attending the lecture, they find comfort in blended education (Duart et al, 2014). My study explores the effectiveness of blended education among adult students attending higher education with the focus on how it shapes students' attitudes and performance. The high level of approachability and flexibility available in blended-learning makes it possible for rural learners in America to use the platform to access higher education irrespective of culture and geographical location.

Significance of the Study

The focus of this study is on the effectiveness of blended-learning among adults at the university level. The study is of great significance in the study of blended-learning because it contributes to recent literature about the effectiveness of this learning approach. In addition, this study will provide insights on how the method can be applied in teaching and learning by instructors and adults in the education system. This study is likely to influence how schools view blended education as a way of ensuring satisfaction and improving achievement among students. More so, it will be of great importance to researchers and educators because they will understand ways of better utilizing online courses and technological tools in teaching and learning. In the end, the data collected will be important to the stakeholders, as the study will highlight how both platforms can be integrated to improve performance, and attitude. In countries and institutions, which have not invested in this method of learning, it will motivate implementation of the approach based on the findings.

Statement of the Research Problem

This study explores the effectiveness of the blended-learning environment with a narrow focus on the challenges facing adults in institutions of higher learning. In Saudi Arabia, adults studying in college are unable to successfully finish their studies because they cannot learn effectively while they are working or taking care of their families. As such, most of the adult students in institutions of higher learning cannot work and study at the same time due to the rigid nature of the college education system. Face-to-face interaction with instructors is an important component of learning. Therefore, online learning should be supplemented with classroom teaching. At the same time, students benefiting from such an environment should be facilitated to have a positive attitude toward technology-supported education systems (Verma et al, 2015). Studies have also found that interaction in the online environment provided efficient and timely feedback to the students more than conventional approaches (Verma et al, 2015). Further, when compared to face-to-face learning, there is a considerable difference regarding success, attitude, and flexibility by students (McCutcheon, Lohan, Traynor, & Martin, 2015). As a result of blended-learning environments, instructors have more time with students (McCutcheon, Lohan, Traynor, & Martin, 2015). Although online learning offers many advantages, such as flexibility, timely feedback, and technology integration, there are some disadvantages, as well. One disadvantage includes fewer in class discussions which make students feel more isolated or disconnected. As such, this may affect their attitude and performance in their subjects. Thus, because a blended-learning platform is open to anyone who wishes to participate, the courses can be improved through appropriate integration of the best aspects of both digital and conventional methods of face-to-face learning during the education process.

Research Questions

To determine the effectiveness of blended-learning among adults in higher education, this study will be guided by the following research questions.

1. What are blended-learning, e-learning, and traditional learning?
2. What is the relationship between blended-learning and student satisfaction?

Limitation of the Study

This research project explores the effectiveness of blended-learning among adults in higher learning institutions. The scope of this project includes colleges and universities, and the target respondents include adults, specifically those who have no time to attend full time classes due to work and family-related issues. The target institution comprises Eastern Washington University located in Cheney, WA and therefore no attempt was made to reach students benefiting from blended-learning from another university in Spokane, WA. In the context of objectives, the literature review and data collection will not focus on issues beyond the impact of the blended-learning environment, the differences in students' attitudes and education achievement between blended and face-to-face learning models. Data collection will be implemented through a prepared quantitative survey to the target respondents and not qualitative methods such as case studies.

Definition of Terms

Here are some important terms that I will use in my thesis. Each term is defined as to the precise way it is used in this thesis for the sake of clarity.

Blended-learning: This term as applied in the education sector encompasses adoption of both online and conventional methods face-to-face learning. This means that students enrolled in such a course have to attend classes physically to interact with the

instructor in a traditional classroom while also completing online aspects outside of the classroom. Thus, class time is partially replaced and also supplemented by online learning where the same topics are addressed in a bid to complement one another.

Face-to-face learning: Face-to-face learning is the traditional form of learning that takes place in the classroom. In this case, the instructor and students in the educational institution undertake teaching and learning activities simultaneously.

Information and Communication Technologies (ICT): This refers to tools and technologies aimed at providing individuals access to information using telecommunications platforms. These devices comprise wireless networks, internet, cell phones, and a variety of communication media.

Learning: The concept of learning is applied in everyday life but mostly in the field of education. Specifically, the term learning includes a systematic process where an individual student interacts with people and materials that cause permanent changes in experiences, behaviors, knowledge, and other aspects of the student's worldview.

E-learning: Or "electronic learning" is an umbrella term that describes education using electronic devices and digital media. It encompasses everything from traditional classrooms that incorporate basic technology to online universities.

Online learning: Online learning is an aspect of blended-learning, but materials are prepared and translated into videos and recorded lectures. In addition, it involves using live text chats and a variety of digitally capable learning activities. These modes serve as primary instructional methods between a student and a teacher. It also involves students working independently through online lessons, assignments, and academic

projects in the comfort of their homes while periodically interacting with lectures face-to-face to review the progress, answer questions, and receive any assistance required.

Student achievement: In this project, the term student achievement will be used to measure the quality of academic content and the students' grade within a stipulated time such as semester and academic year. For each determined time, there is a grade and objective set by instructors in the process of teaching. For example, student achievement increases when the quality of instruction meets the required standards.

Student attitudes: This term is defined by a predisposition of students in the platform to respond either negatively or positively toward individual objects and tools in the learning process. The attitude adopted by students about a specific learning model is influenced by the choice of their action and how they deal with emerging challenges, rewards, and incentives.

CHAPTER TWO

Literature Review

In the United States the concept of blended-learning in the education system began in higher education and, over the years, it has permeated into other levels such as elementary grades. Kuo, Belland, Schroder, and Walker (2014) argued that blended-learning as an approach is implemented through a combination of face-to-face interactions and the use of technology-based learning. In another context, the concept is also referred to as hybrid-learning and the definition is learning through face-to-face interactions and digital interactions between students and instructors Kuo, Belland, Schroder, and Walker (2014). In the process, face-to-face or conventional methods comprise 67%, with the remaining 33% being technology (Kuo, Belland, Schroder, & Walker, 2014). In many institutions of learning, educators have implemented such a model in the classrooms with the main aim of enhancing instruction and reading. This literature review explores how blended-learning is effective in higher education and discusses the level of satisfaction and student achievements.

Blended-Learning, E-learning, and Traditional Learning

The idea of combined learning is to blend two different methods, particularly e-learning to a traditional, in-person approach in the classroom. These principles are explored in the following analysis to shed more light on the application of blended-learning in many contexts. E-learning pertains to distance education facilitated by using electronic media including the internet, DVD videos, videotapes, CD-ROMs, television sets, and cell phones.

Cracraft (2015) further added that e-learning offers and gives information to users through the internet, which is more advanced, compared to traditional solutions in its

capacity to update, store, and promote learning information. E-learning contains two important elements: using the internet for upgrading, retrieving, posting, and showing messages; using technology that facilitates learning far away. Furthermore, Anderson and Henderson (2004) claim that e-learning brings a number of benefits such as reducing charges for traveling, boosting convenience, and the students determining the pace of their learning. Further, the huge benefits also reach organizations of learning leading to anticipated improved overall flexibility in their educational systems.

Alternatively, traditional learning is thought as the situation where students learn mostly from the teacher or professor and other resources such as literature, catalogs, journals, audio tracks, and video tapes among others. It is thought as lecture-centered and structured learning where educators, instructors, and professors provide instruction to students. Some of the benefits of the traditional learning are; students can interact with each other, practice and help each other, learning from each other, also building a good relationship with others.

Combined learning is a blend of both methods defined to provide learning instructions to the students. Blended-learning identifies the integration of traditional classroom teaching with e-learning activities to enrich delivery in the training environment. Combined learning involves placing the major learning activities online while keeping the traditional classroom in a manner that takes the benefits of face-to-face classroom teaching and online learning. For example, in face-to-face learning, there is opportunity to interact with the teacher, other students and encourages organized learning because students are in a particular place at a particular time. On the other hand, online learning has a flexible environment, easy to access required content easily, less time

travelling and having various choice of topics (Cracraft, 2015; Graham, Harrison, & Woodfield, 2013).

In this regard, blended-learning is a mixture of different learning settings, methods, and materials coordinated to help learners meet their own educational targets better than learning in traditional conditions. Blended-learning combines the benefits of online and instructor-led learning, which is provided in a one-on-one or small-group instructional setting. This content is carefully designed so learners can access it on their own time and proceed at their own speed. The strengths of this approach are that it provides educators, instructors, and professors the opportunity to construct separated paths in light of specific student needs (Cracraft, 2015). For example, if the students have discussion board questions and they have to work during the morning, they can do the discussions at night because usually the instructor gives the students enough time to respond to each other.

While the idea for blended schooling began in several universities, secondary and elementary schools have increasingly adopted this notion in their institutions. While many educators and instructors choose to include technology through computer-based reading and mathematics programs, other choose to apply technology through web-based programs that emphasize ingenuity. This approach included a decision to use online publications, such as personal blogs, rather than using pencil and chalk in their tasks (Lou, Chen, Tsai, Tseng & Shih, 2012). Many educators choose to incorporate websites and online quizzes to include technology in their classroom, so the students can do the quizzes in the classroom or they could do the assignments in their home and submit them online.

Using technology in the classroom to increase instructional efficiency helps students participate and further strengthens students showing what they know using different strategies. Blended-learning is not merely implemented in advanced schooling; elementary and secondary schools took on the task to expose young students to technology-based programs with the objective of improving reading instruction. This corresponds to Barshay (2011) who argued for blended-learning at all levels namely primary, secondary, and universities. He further stated that governments in states such as California have integrated a one-to-one technology program, predicated on blended-learning. At the kindergarten level, instructors use laptop computers and other digital devices in a reading program to help students achieve vocabulary and specific goals at their grade level. This study Barshay (2013) demonstrates both the flexibility and adaptability of blended-learning in the classroom.

According to Boles (2011) for the blended-learning to be effective, there is a need for educators and instructors to use technology effectively and assess what works best with students. To increase classroom efficiency and effectiveness, many teachers also have started flipped learning. A flipped approach mixes in-class activities with an internet or a web-based component at home (Barshay, 2013). This process would be comparable to Boles's (2011) suggestion to have students use a blended approach.

Design Features in Blended-Learning

The features under review in this study include topics such as relationships and connections with instructors and peers, technology use, the quality of that technology, face-to-face support, and learning management tools and resources.

Research implies that lack of learner interaction triggers inability and eventual dropout in online lessons. In addition, less learner connectedness was mentioned as an interior factor resulting in learner drop-out in online lessons (Klein, Noe & Wang, 2006; Willging & Johnson, 2009). Learners may well not continue in e-learning and blended-learning if they are unable to socialize; therefore, students who feel disconnected will suffer from expanding emotions and thoughts of isolation throughout their e-learning activities (Willging & Johnson, 2009). Learners' relationships with instructors and peers can make the online approach to blended-learning ineffective as it makes learners withdraw (Astleitner & Leutner, 2000).

Kintu, Zhu and Kagambe (2017) mentioned that the learners' measurement of the online teaching platforms quality, dependability, and simplicity brings about learning efficiency in blended-learning. Learner success in the methodology is significantly damaged by system operation and could lead to failing of such learning initiatives (Shrain, 2012). Hence, it is important to look at technology quality for making sure learning performance success in blended-learning. Tselios, Daskalakis, and Papadopoulou (2011) looked into learner perceptions following learning-management system use and discovered that the online system use establishes the effectiveness among users. Similar to Klien et al (2006); Anderson and Henderson (2004) found that a system with feedback mechanisms can be helpful for blended-learning and e-learning especially in instances of limited bandwidth. With this particular study, the authors checked out the utilization of an education management system known as Moodle and its own tools as a function of potential efficiency and success of blended-learning approach and methodology. The levels and degree of learning management system content for students

in higher education can be considered a good predictor of excellent performance in blended and e-learning surroundings and can result in learner satisfaction similar to (Anderson & Henderson, 2004; Klien et al, 2006).

The effectiveness of use of learning management system and its own tools increases learning in recent studies in blended, e-learning and environments. Learners' satisfaction with a learning-management system is an antecedent factor for combined learning success. Goyal and Tambe (2015) observed that learners who exhibited an understanding of the online learning platform saw an improvement in their learning. Learners felt positive with online learning management platform improved and upgraded their knowledge of course materials (Ahmad & Al-Khanjari, 2011).

Goyal and Tambe (2015) used descriptive information to indicate access to more information for learning by use of uploaded syllabus and program ideas on Moodle. Improved upon learning is also mentioned by Goyal and Tambe (2015) through sharing research material, submitting projects, completing tasks and using the calendar. The researchers found Moodle to be a powerful educational tool. In this study (Goyal & Tambe, 2015) learners expressed their inclination for face-to-face interactions because it facilitated interpersonal conversation between students to students and students to supervisor and vice versa compared to conventional classroom setting. Their choice and inclination for the web program was only as far as it complemented the original face-to-face learning (Goyal & Tambe, 2015). In a report by Osgerby (2013) learners also experienced positive perceptions of combined learning but preferred the conventional face-to-face due to its instruction.

Beard, Harper, and Riley (2004) implied that some learners are successful with blended-learning because it allows for improved individual interaction with the instructor and peers. Because of this, students tend to favor blended-learning because it combines the elements of both traditional face-to-face and online platforms. Beard et al. (2004) the researchers did a study on-campus and online learning while this study focused on both, singling out the face-to-face area of the blend. The benefit found by Beard et al. (2004) is relevant here because learners in blended environments express positive feeling about both face-to face and online thus making it a powerful and efficient blend. Researchers point out that teacher presence in face-to-face classes lessens emotional distance between them and the learners and brings about greater learning. It is because face-to-face learning offers verbal aspects like supplying compliments and rewards, soliciting for viewpoints, laughter, and others. In addition, there are non-verbal expressions like eye contact, facial expressions, gestures, and others, which will make instructors closer to learners psychologically (Kim, Kwon & Cho, 2011).

The Role of Technology in Blended-Learning

One of the most frequently cited reasons for justifying the necessity for change in education, or labeling education as archaic, is the tremendous technological revolution the world has undergone in the recent years. We have the internet inside our pocket, accessed by means of a smartphone. A college or a higher institution of learning with tables, black and whiteboards, and print catalogs seems archaic because such tools for learning systems strongly resemble how things were done in previous decades (Kruger-Ross & Waters, 2013).

Duart et al. (2014) argued that effectively mixing both traditional and web-based approaches requires well-structured online resources. First, one must establish a Learning Management System that will assist teachers in attaining and completing daily classroom responsibilities such as grading, the online class calendar, research work, assignments, and other types of class work such as parent and student conversations. Once instructors are comfortable handling course activities online, the next phase includes making lessons plans in easy-to-reach locations like workspaces and resources. These include videos links and audio tracks, which are often available to students.

Many tools found in blended-learning environments can be explained as communication tools such as those digital ways professors encourage students to express their thoughts for sharing them with their classmates. These tools allow students to ask and further clarify questions while the professors evaluate the level of understanding. It may imply out-of-class tools such as discussion boards, message boards, or websites where students discuss a particular topic in a course. The emphasis includes websites, personal blogs, live streaming, online community, and social media platforms such as tweets (McCutcheon et al., 2015).

According to Waters (2013) blogs were crucial in blended-learning and instruction strategies because they are an excellent tool for disseminating commentaries about certain issues, thoughts, and points of view. Blogs provide a chance for bettering communication and increasing impact between students and professors because personal blogs make an excellent tool for documenting the procedure of completing a task and distributing results. Furthermore, students may use weblogs to aid and develop their learning. These sites tend to be reflective and may be private or for the public. They

allow learners to record, file their learning, and can permit the professor to evaluate students' understanding in relation to a task or product content (Waters, 2013).

Message boards are also essential in learning and instructing strategies in the blended-learning environments (McIntyre, 2016). An instructor can make links while working and pose questions to students who subsequently share their experiences, problems, and alternatives. It is possible to look at past occasions or current issues and present challenging ideas suggested by teachers. Further, message boards allow brainstorming to promote ideas in the presence of tutorials, lectures, and experts in a specific field. Student also gains massive advantages from threaded conversations around designated readings concentrating on interpretations, expected activities, and assessments. Independently, students present perspectives on specific issues that are then accompanied by a whole-group consensus-building conversation (McIntyre, 2016). Students interact in groups to draft documents containing proposals and analytical reviews that are then posted to the larger group for further conversation and critique (McIntyre, 2016).

Live Internet is becoming a dominant tool found in blended-learning environments. In this process, the professor invites a specialist from a specific area to be accessible for students for a topical discussion. The strategy allows presentations about sophisticated issues and students take part in live debating or even discuss topical matters of a certain subject. The professional also presents challenging tasks to students by asking them to prepare questions and quick discussions about particular subject areas for revision prior to presenting assessments. Furthermore, it explores intricate problems with the intention of enticing students to have a deeper look at the discussed area. Students

also take part in live debating; discuss trending issues and voicing their opinion and thoughts via the polling functions in the tool (Schullo & Venable, 2005).

According to Schullo and Venable (2005) student can utilize video conferencing for learning and teaching strategies. The system allows students to report on field excursions and placement. In addition, it allows collaborative engagement between different groups who can discuss a certain topic and maintain sessions on topics from readings and other learning materials. The instructor can engage with students on how to solve obstacles in the course.

Blended-Learning and Educational Achievement

Within the last 15 years, a growing number of programs, classes, trainings, and classroom lessons across all subjects in universities and colleges have integrated online course components. These range between fully online programs to trainings that are face-to-face with minimal online elements. Of particular interest will be the variations in programs that use the blended-learning approaches and classic learning design, in which some course elements are conducted in a normal classroom set-up while other course elements are provided online. Online learning strategies within students' learning activities in institutions of higher learning is pervasive (Kim et al., 2011).

Many instructors' and universities now use different teaching and learning delivery methods that depart from in-person lectures. The motivation behind this is due to current technology improvements and innovations that makes it easy for students and supervisors to interact using online. In America, for example, the number of students taking classes online versus in person has been increasing by hundreds of thousands annually due to these technological changes (Allen & Seaman, 2006).

While the benefits of online teaching may lower the expenses of students seeking higher education, it might provide weaker bonuses for students in terms of academic achievement as noted by Alonso, Manrique, Martínez, and Viñes, (2011). These differences between individuals are strong proof that pedagogy is one of the key rationales for the launch of online and blended-learning. Therefore, there needs to be an agreement as to which of the modalities for examining the success of blended-learning should be used. This study focused on examining the impact of delivery method on university student performance. This evaluates the degree of blended-learning system use and educational performance and success.

In addition, Kintu, Zhu and Kagambe (2017) observed three main factors that impacted and influenced blended-learning efficiency and the level of success based on tutor characteristics, technology, and college learner characteristics. The study demonstrated the necessity for evaluating some learner aspects for successful instructional technology use and exhibited that individual characteristics do affect behavioral intention to utilize technology. There are various studies Kintu, Zhu and Kagambe (2017); Lin and Vassar (2009) focusing on learner characteristics relating to learner performance and benefits. In regard to the aspects determined in this study Kintu, Zhu and Kagambe (2017) there was another dimension, specifically for blended-learning environment designs and learning using technology. Lin and Vassar (2009) mentioned that learner success depended on the ability to handle technological difficulties as well as specialized skills in internet navigation and basic computer functions.

According to the Oxford Group (2013) studies have shown that college student characteristics such as gender are essential aspects in academic achievements, but no

analysis examines performance of gender as a significant factor in blended-learning effectiveness and test scores. Again, it has been observed by Oxford Group (2013) that the success of both blended-learning and e-learning is highly reliant on experience and knowledge in computer and Internet applications. Strenuous breakthrough of competences and knowledge in use of computers and internet has increased the likelihood of establishing blended learning by many academic institutions. The success of the blended-learning environment can rely upon students as well as instructors gaining self-confidence and the capacity to participate in the approach to learning (Oxford Group, 2013).

Shraim and Khlaif (2010) indicate that 72% of educators and 75% of students lacked necessary technical skills to use online teaching platforms. Inadequate skills and experience in Internet and computer applications led to inability to actualize learning. Hence, it is pertinent that because blended-learning requires high computer systems skills, computer competence is needed to ensure efficiency in learning and success (Abubakar & Adetimirin, 2015). Abubakar and Adetimirin (2015) added that time management and learners' computer literacy are necessary in distance learning contexts and factors as the most important in online classes.

Selim (2007) argued that learners need to gain computer and time management skills because they are essential for e-learning success. Self-regulatory skills bring academic performance and learners' potential to structure face-to-face learning environments to achieve efficiency in blended-learning and e-learning environments. Learners need to get the help of peers and instructors through emails, chats, and face-to-face conferences for success (Selim, 2007). Cohen, Stage, Hammack and Marcus (2012)

explain that factors such as learners' occupation, available time, and family duties are recognized as an impediment to learners' academic performance in overall blended-learning.

Cohen, Stage, Hammack and Marcus, 2012; Selim, 2007 have been carried out with the purpose of comparing traditional ways of educating with technology-centered methods that resulted in various findings. Cohen, Stage, Hammack and Marcus, 2012; Selim, 2007; added that the individuals' scores showed no difference between the two groupings.

Kintu, Zhun and Kagambe (2017) looking into how the methods improve the students' understanding of various subjects. Kintu, Zhun and Kagambe (2017) sought to compare both blended and lecture-based learning methods in nursing students and their results demonstrated that learning results and retention rates from face-to-face methods were far better compared to problem-based learning techniques. Also, Kashi and Doost (2015) in their research showed that the rate of academic success in the lecture method was a success compared to the online-based method. Kashi and Doost (2015) exploring both blended type of teaching revealed better results in comparison to the traditional lecture method. Kashi and Doost (2015) also compared blended and face-to-face lectures methods in the context of problem-based methods in a nursing class and confirmed that problem-based method had a greater effect on students' attitude toward the method. Kashi and Doost (2015) mostly targeted medical students and showed the results of the learners' knowledge and skills in the blended method achieved better results than traditional and online methods.

Figlio et al. (2013) evaluated the impact of instruction mode on college student performance in microeconomics classes that took place at Michigan State University in 2000 and 2001. The study whether students signed up for face-to-face or blended-learning. Furthermore, Figlio et al. (2013) sought to recognize college student characteristics, such as gender, university entry ratings, or class averages, which were associated with better learning results using a definite technology. The study found that live-only lessons dominates internet instruction among male Hispanic students and students with lower grades achievement.

In Brown and Liedholm (2002) study, students' performance was assessed using quizzes with similar degrees of difficulty or intricacy in both learning environments. The data demonstrated that students' performance was affected by delivery methods. For example, according to the study Brown and Liedholm (2002), students doing conventional methods performed significantly better compared to students registered in blended-learning when being taught complicated material. Specifically, the web content can be used to support materials delivered by lecturers and is therefore considered to be a replacement for it.

Figlio, Rush, and Yin (2013) conducted a test using a microeconomics course taught by an individual instructor at a research-intensive institution. In this test, students were arbitrarily designated to either an internet or live course trained by one teacher. The support materials such as website, problem sets, and tests were identical between all the sections. The study was designed so the only difference between the approaches included the mode of delivery.

By evaluating the average marks across the two classes, Figlio, Rush and Yin (2013) noted that students performed better in conventional delivery methods than in blended-learning. This difference, however, was not significant. Issues such as gender, university entry scores, competition and overall academic performance, affects the average ratings results of the students. The authors confirmed that whenever control such as gender, entry scores is used, students' average results tend to be more than 2.5% higher under face to face method compared to combined method. These results are an indication that online delivery alone without combination of face-to-face method of delivery, then students may have lower results on students' learning.

Blended-Learning and Student Satisfaction

As part of the study, this literature review seeks to investigate the effectiveness of blended-learning instructions in terms of students' satisfaction. In the current online era, the idea of a classroom extends beyond a walled room with desks, tables, chairs and into the realm of cyberspace. Computer screens and displays are replacing the blackboard and keypads are replacing chalk. To provide learners with the best experience, many educators and teachers are opting for a blended-teaching and methodology rather than a traditional classroom. The major preference institutions of higher learning include a face-to-face interaction supplemented by online resources (Rivera & Meler, 2012).

Although most research in distance education has studied the effectiveness of distance programs through examination of course grades, marks, and test core results, some studies have contended that simply looking over grades had not been sufficient to estimate or calculate the effectiveness of a course, since other factors such as learner's satisfaction might influence academic achievement. Satisfaction in the context of the

study can be defined as the pleasure or contentment that one person or a group feels whenever certain targets are achieved. Although there is no correlation between students' satisfaction with academic achievements, it is a vital aspect necessary for the successful completion and conclusion of the course (Chang & Fisher, 2013).

Furthermore, satisfaction contributes to motivation, which is essential for learner success in the framework of academic success. It appears that students in distance courses are likely to be dissatisfied and frustrated with factors including unclear expectations and prospects from instructors, restricted timeline, workload, poor access, and limited communication. Student satisfaction is also likely to determine whether the student takes subsequent courses in this format with the same education provider. It is crucial that researchers and social scientists continue to explore the advantages and drawbacks of online distance education versus traditional teaching as well as the relationship between student satisfaction and distance education (Sahin & Shelley, 2008).

In distance education settings, satisfied students learned more easily, were less likely to drop out of class for non-academic reasons and were more likely to consider additional distance programs and recommend the course to others. From this information, it appears that the degree of learner satisfaction and likelihood of subsequent enrollment in online classes partly depends on how well the approach to teaching and planning the lessons (Sahin & Shelley, 2008).

In her latest review, Strickland (2009) compared the course delivery methods in two respiratory therapy courses trained by the same instructor. One group of students completed the course in a traditional environment, while the other group completed the course in a combined environment. The method of course delivery, the final examination

grade, and the course quality were recorded for each student. Strickland (2009) also analyzed the students' satisfaction with the course through the information provided by each college learner on a standardized student evaluation of the course. Strickland found that there were few statistical variations and distinctions between the effectiveness of a traditional course delivery method and a hybrid one. Assessment of college learner satisfaction revealed that students in the hybrid classrooms are more often puzzled regarding course requirements. In addition, it was noted that the students who completed the course in a traditional setting were more pleased with the course outcomes than the students who completed the hybrid course (Sahin & Shelley, 2008).

Based on the study analysis, there is little statistical dissimilarity between the performance and success of a traditional course delivery method and a hybrid one. The final assessment and course marks were almost identical. While there was slightly more confusion regarding hybrid classrooms, the results favor the continuing practice of blended-learning environments as a feasible option for course delivery in healthcare education (Osgerby, 2013). Strickland argues that, overall, the essential results indicate that blended approach is as effective as a traditional classroom. As professors become more technologically perceptive and even more used to supplementing their programs with online material, the blended course will become more beneficial. In their study, Gee, Strickland, Thompson and Miller (2017) list the countless benefits of blended classrooms. These benefits include increased classroom size, accessibility, and ease of access of academic materials and flexibility. However, their study observed that motivation and technological capability are major factors influencing the success of students in the e-learning environments.

The research further mentioned that using technology for learning offered greater convenience, time shifting, better pacing, more access, and ease of communication, but face-to-face teaching continues to be preferred. Some study participants noted that faculty in blended classes had unrealistic expectations. For instance, instructors expected that students would read voluminous levels of materials, post reactions to message boards regularly, and do research independently online. Therefore, in this respect, blended classes were designed to increase students' work and lessen educators' work.

In the study, male students possessed a greater inclination for learning with technology and thus strongly agreed that the utilization of technology in classes improved learning. Similarly, 41% of female students felt the same way. Sophomores, juniors, and seniors doing internships especially liked blended programs that required fewer face-to-face meetings often only once a week for two or more hours (more than 53%). Senior students were very satisfied with using online platforms, journaling, and websites with faculty and peers. Interestingly more than 80% percent of the students presumed they have requisite skills or very skilled online tools and ready for the workplace. Satisfied students observed that blended programs facilitated frequent email between students and professors, and faculty joined students in discussion boards, chat rooms, and social media channels such as Twitter and Facebook. Moreover, online learning offered the potential for providing flexible access to content and instructions at any given place and time. Many students stated that online learning provided opportunities for continuous improvement of homework and paperwork. Some professors, students noticed were as active and energetic online as they were in the classroom and they made an extremely

positive impact on student engagement and learning (Gee, Strickland, Thompson & Miller, 2017).

Conclusion

In conclusion, the idea of combined learning is a blend of two different methods particularly e-learning and the traditional or in-person approach in the classroom. As such, the approach to learning includes a mixture of different learning settings, methods, and materials coordinated to help learners meet their own educational targets better than learning in traditional conditions. The concept is effective when compared with the traditional approach because the approach provides information to users through the internet that means it has the capacity to update, store, and promote information. Researchers have different information on whether this method improves academic achievement compared to the traditional approach, the level of satisfaction, and its effectiveness. Sahin and Shelley (2008) research suggest that students in distance courses are likely to perform badly and feel dissatisfied; the reason behind such includes expectations and prospects from instructors, restricted timeline, workload, poor access, and limited communication. In the future, more research needs to be carried out to explore all the dimensions investigated in Sahin and Shelley (2008) study to help improve the effectiveness, satisfaction, and academic achievement.

CHAPTER THREE

Project Design

This section focuses on the effectiveness of blended-learning among adults at the university level. This chapter will consist of six parts: introduction, type of design and the assumptions that underlie it, the role of the researcher including qualifications and assumptions, selection and description of the site and participants, data collection strategies, and data-analysis strategies. In this chapter, the research design of this study is outlined in detail. The research methodology aspects explore and describe the practical worldviews of the participants and how I view the research. A detailed rationale explaining the choice of methods, such as the approach to qualitative and quantitative collections and other aspects of the study are included here. After describing the structure of the research, participant's responses to the survey will be analyzed as well as the methods used in data collection and the materials. Then, the analysis procedures will be presented, and lastly, the summary will be presented.

Research Design and Methodology

According to Vogt, Gardner, and Haeffele (2012) research design is defined as the overall strategy chosen by the researcher to integrate the different aspects of the study logically and coherently. The benefit of this approach is to ensure the research problem is addressed. It comprises a blueprint summarizing the whole process from data collection to data analysis. One important thing to note is that the research problem is the most significant determinant of the research design to be used and not vice versa. Creswell and Creswell (2017) argue that the primary function of a research design is to ensure the kind of evidence gathered is enough to address identified issues in the research problem unambiguously and in a logical manner. In social sciences research, collecting the needed

information to solve the research problem includes specifying what evidence is necessary and then assessing the meaning related to this observed data. One of the common mistakes by researchers is failing to adhere to these design issues and thus not addressing the problems outlines ending with a weak and ambiguous conclusion.

Taylor, Bogdan, and DeVault (2015) define research methodology as a systematic process that allows the researcher to answer the questions under investigation in the study appropriately. In this process, social scientists draw on both qualitative and quantitative methods such as surveys, experiments, secondary data, and participant observation to address the problem statement. Glesne (2015) adds that the objective of quantitative methods includes classifying features, counting them and coming up with statistical models to explain observations made, and testing study hypotheses. Qualitative methods' approach objective is to have a complete and detailed description of data and view concerning events, circumstances and context in the research design and methodology.

Type of Design and Underlying Assumptions

My research employs quantitative and qualitative design. Quantitative and qualitative data are utilized in this study because they provide the best avenue for a researcher to have a comprehensive understanding of the problem under investigation (Creswell & Zhang, 2009). Vogt, Gardner, and Haeffele (2012) explain that for any research design to be used in a study, it must match well, and relate, communicate worldview similar to that of the researcher. I believe that social problems are solved by exploring and determining the needs and wants of the people involved. High quality research must be founded on knowledge, skills and materials and available in a given

time and space. Quantitative and qualitative approaches, by application and definition, are a combination of various aspects methods used in research.

Underlying Philosophical Assumptions

Like any research being carried out, there are a specific set of beliefs and philosophical assumptions that apply. Sometimes these beliefs in research are deeply ingrained based on the type of problems we intend to study, research questions to be used and the methodology of collecting and analyzing data. These beliefs are imparted to us through educational training, books, journal articles and those dispensed to us by professors and research advisors or through the scholarly communities (Glesne, 2015). Additionally, they are passed to us through educational meetings and conferences. The difficulty lies in recognizing these beliefs and assumptions and deciding how and where to incorporate them in our studies. At an abstract level, these philosophical assumptions play a role in determining the models we include in our research process (Dörnyei, 2007).

Quantitative and qualitative research are the only frameworks of research employed during a scientific inquiry. These two approaches in research are also known as methodologies (Creswell & Zhang, 2009). Researchers see the essence of these models and beliefs because it informs the work and applies actively in their research. Creswell and Zhang (2009) explained these assumptions and framed them into interpretive frameworks to make it easy to understand their significance in the research process.

For my master's degree study, I am exploring the effect of blended-learning among adults in universities with the aim of understanding what aspects affect that approach to learning and determining solution. Before getting to the resolution, the study

first began defining the problem in greater depth, along with some of the theoretical approaches to research to guide the efforts applied.

In the context of interpretive frameworks, Creswell and Zhang (2009) explains that interpretive frameworks form the foundation of beliefs guiding the action. The philosophical assumptions used in the study namely ontology, epistemology, axiology, and methodology are founded on these interpretive frameworks used by the researcher. When I began this study, I agreed to underlying philosophical assumptions. Following Creswell and Zhang (2009) I adopted four philosophical assumptions as explained below. This includes ontological, epistemological, axiological, and methodology.

Ontological answers to the nature of reality and seeks to describe reality and characteristics as it is. I understand that there are multiple realities and reactions by exploring these various forms of evidence using different personal experiences and perspectives (Creswell & Creswell, 2017).

Epistemological relates to the way researchers are aware of the aspects of study they know. This research got closer to the possibility of implementations blended-learning in Saudi Arabia by the use of participants under investigation in the field.

Axiological assumptions like ontological and epistemological are related to the role of values as used in research. My study makes its costs known and actively reports them and the biases that might affect the nature of information collected from study participants. Inductive approaches were employed and significantly shaped my experience during the process of collecting and analyzing respondent's data (Bernard, 2017).

There are underlying philosophical assumptions in the combination of both methods of inquiry. As a methodology, the philosophical assumptions guide both data collection and analysis using the mixture of both qualitative and quantitative data in all the stages of the research process. As a method, the primary focus includes collecting and analyzing data in a single research study. The central theme of the approaches argues that use of both ways in the study provides avenue of understanding research problems better compared to a single procedure.

When many researchers, especially at the institutional level, decide whether to use quantitative or qualitative research approaches, they assume how knowledge is structured and try to understand reality and the role played by researchers in the study. It is essential for researchers to have sufficient understanding of philosophical assumption of the two approaches employed for them to have a clear reflection of the assumptions while carrying the research. Also, understanding the philosophical grounding of the proposed method makes the strengths and weaknesses known. It is also important to contrast the two paradigms to boost the general level of understanding of the existing epistemological in the research process. Further, it allows the articulation of epistemological variations and awareness regarding the different kinds of knowledge and the purposes it serves (Bernard, 2017; Brannen, 2017).

Thus, my study employs a quantitative approach which relies on a cross-sectional survey to elicit learners' perceptions revolving implementation of the blended-learning environment in Saudi Arabia. Data collected from respondents will be presented using tables, and descriptive design is applied to give meaning to data and to interpret the study objective. While the quantitative approach is essential in research, it is not free of any

methodological flaws. To cure these flaws, elements of qualitative research methodology are employed to gather information and additional data for the study. This kind of data was collected in the natural environment comprising interviews with students to have a detailed overview of the participant on various aspects of qualitative research.

According to Creswell and Zhang (2009) this approach is a concurrent embedded data collection strategy that is identified by one data collection phase characterized by a collection of data using two approaches simultaneously. Furthermore, it primarily guides the study to understand blended-learning research among an institution of higher learning. Quantitative surveys were used to gather information from learners. In the case of qualitative data, I gathered information by conducting learner interviews to gain their perspective about the needs and actions to be taken to boost blended-learning opportunities in Saudi Arabia colleges and universities.

In this study, two methods of data collection were used to integrate the information collected and further compare the sources. Regarding the study, the quantitative data needed was obtained using a survey, and the target respondents were the students. I also conducted face-to-face interview with a small number of student participants. The tool used was open-ended interview questions and a survey asking questions on a scale that focused on eliciting student perceptions and observation about the blended-learning environments in the Saudi Arabia. Data from survey sections were coded accordingly using percentages.

Researcher's Qualifications

I received my undergraduate degree in microbiology which required a lot of research, but I chose to complete my master's degree in adult education because, in my

country, biology students are not allowed to work in a laboratory or hospital. Therefore, the only option for these students is a career in teaching, and I desire to teach biology to adult students in my country. During my master's research, I have gained extensive skills and qualifications in the area of blended-learning in higher institutions of learning.

Previously, I was a middle school teacher in Saudi Arabia for eight months with a focus on teaching science. My experience inspired me to continue teaching, but this time at the adult level. My first internship was carried out at EWU where my role included assisting teaching in English Languages Institution (ELI) classes for six months. My project was inspired by the blended courses I had enrolled in during my master's studies. This made me feel that blended-learning courses could be beneficial to students in my country who cannot find enough time to attend traditional classes but need to attend universities and colleges. Mostly these people have a job or family commitment, and blended courses will be helpful to such people. Based on my career experience, educational qualification and my aspirations, I am qualified to carry out this project. I will discover unexplored issues in adult education and effects of blended courses on students in Saudi Arabia.

I desire to teach biology to adult students and structure all my classes as a hybrid opportunity. The courses will be designed in such a way that the instructor and students will meet on a daily basis. However, some aspects will be implemented online such as laboratory reviewing reports. Also, weekly quizzes will be delivered through an online platform where students will provide the answer and discuss the issues about the questions. As a teacher, I will help students by giving quizzes and guidance online while recommending some reading that will be helpful in the discussion. This approach will

also be a rich source of information on what elements of the course can be well delivered online or in a traditional setting, areas to improve, and the general issues affecting progression among students.

In the context of education, the term teaching philosophy is defined as a self-reflective statement summarizing the beliefs and perception of learning and teaching. It comments on personal teaching philosophy and explains how the beliefs can be put into practice such as what to anticipate and do in the classroom.

My philosophy is the most appropriate way to inspire learning by means of hybrid-learning in the future. My philosophy is that the best way for teachers and students to interact is having a solid classroom management strategy and having a class lesson that is driven by the need to have purposeful activities formulated to improve students' skills and knowledge. On the other hand, instructors should be student-centered and embrace the aspects of discovery, exploration, and experiential learning to produce desired academic results and products.

Bias is very common in research even for the most experienced researchers. Example of them is sampling bias and this was avoided by double checking the methodology and questionnaire used to gather information from the respondents. If not well checked, they can end up in skewed results and only for confirmation of what the researcher thinks is correct. Both were considered and created accurately to ensure a highly representative samples and data for the study. In the context of recording research findings, reviewing conclusions by the peers was the most appropriate. Sometimes the researcher doing the research cannot identify gaps in the argument and only asking for

review can identify the missed points. The main aim of this is to affirm the study conclusions and whether the explanations are reasonable given the collected data.

Participants and Site

This section focuses on the past and the location of my research project. Glesne (2015) argues that in social science research participants also known as respondents includes people who participate in providing data and information in a study. Both quantitative and qualitative research needs to be standardized through various procedures and the mode of participant selection. The aim is to eliminate any potential bias and influence of external variables to achieve results generalization. In contrast, the range of research participants in research is purposeful because they are selected based on how best they inform the research questions and create a necessary understanding of the phenomenon explored. Hence, one of the essential tasks in the study design includes identifying the most appropriate participants. Researcher's selection of study participants is guided by research questions, theories, and data informing the study (Creswell & Zhang, 2009).

According to Davis, Demby, Jenner, Gregory, and Broussard (2016) various consideration needs to be included when selecting these participants. Participants sampled must well inform the critical perspectives and facets related to the research phenomenon under study. Another concern when selecting study participants includes a statistical calculation to ensure it has sufficient power to confirm outcome that can be attributed to the whole population. In research, the number of a sample size is not predetermined because some of the participants may not want to answer the questions. This is to mean that the sampled participants and the size used in the study is sufficient

and thus will lead to answering of the research questions, identification of new concepts and end issues of data saturation.

Based on the topic of the study that sought to explore the effects of blended-learning among adults in university, the process must ensure participants provide sufficient information to answer questions examined in the study. This research can be carried out in campus and off-campus locations. Participating in a study is a voluntary process, and one can choose not to participate even when the process has started. The study participant safety and privacy should be guaranteed through the process because they offer both time and effort to provide information that will go a long way in increasing knowledge in a particular area of study. Some of the techniques used to gather data from participants include telephone calls, survey questionnaires, focus groups and face-to-face interviews (Davis, Demby, Jenner, Gregory & Broussard, 2016).

The findings include data collected using a structured survey, and an interview. The sample of 29 students was used to gather data and information; 22 students completed the survey before their class begins, that was at EWU in Williamson building. Before interviewing them, I got a permission from their instructor to do my survey which only took them 15-20 minutes for each student. However, for the purpose of this survey, I evaluated student that had experience with blended-learning and this included those who have registered at least one course. The result gathered from these students formed the basis of my analysis in chapter four and were used to make conclusion in chapter five.

During the interview process, only seven students from Saudi Arabia were selected because they provided the required data and information for the study. To achieve this, the sampling process concentrated on students who are members of the

Saudi Club. it is important to highlight that the officials and members in the club were so helpful and willing to inform student and further schedule their appointment with me at the interview in the meeting room in the library JFK at EWU. After data was collected and sorted data from 29 respondents was validated for review, and later coded, and findings projected using percentages. Data was then presented using descriptive statistic in tables and figures and followed by descriptive analysis to give meaning to study outcomes.

Sampling Technique

This section explores the sampling techniques applied by the researcher to gather data from the study participants. Hox, Moerbeek and Van de Schoot (2017) the essence of representativeness is because it allows the researcher to draw general conclusions based on sampled data for the entire population. In cases the sample is not representative, then the conclusions drawn are invalid because the sample gathered will be so much different from what is expected of the entire population. There are two risks firmly associated with an invalid conclusion which includes incorrect acceptance and false rejection of the study hypothesis. Practicability is also an issue of concern in sampling methods. A practicable statistical sampling technique means that it allows the study to estimate the required number of respondents and the specific type of sampling technique during the process of the data collection, materials required and other issues that may arise such as ethical concerns, availability of samples, and study demands (Etikan, Musa, & Alkassim, 2016).

All the participants of the study were students, both graduate level and undergraduate level. The convenience sampling method was used to select participants. I

had access to students in my own courses and to other courses at the university to have a broader perspective of blended-learning among universities. According to Etikan, Musa, and Alkassim (2016) convenience sampling is a non-probability sampling approach where all the subjects used in the process of the study are selected due to their convenient proximity and accessibility to the researcher. Convenience sampling is also known as availability sampling as explained by Hox, Moerbeek, and Van de Schoot (2017) and includes a specific type of non-probability sampling where the researcher collects data from a target population whose members are available at the time of data collection. For instance, in my study, available members were selected to provide needed data such as surveys and interviews.

The sample was chosen based on their accessibility to the researcher. The site of the research included EWU located in Cheney, WA because it was easy and fast to access students since the researcher was herself a student. Besides, the population has a general knowledge of what blended-learning is and has a view of how it can affect education and where and how it can be implemented among other issues. In this study, the sampling technique has no predetermined inclusion criteria during the selection of study participants and every person who agreed to complete the survey and the interview was included in the results. In its basic form, and as applied in the study, it will include reaching out to people who have the potential to provide required data for the research and posing questions.

In blended-learning research, the participants were found to be the ideal people to represent the entire population, because it was fast to implement, easy to carry out,

inexpensive, and the subjects have already known about blended learning. In the case of this study, convenience sampling was the only available option due to time constraints.

Research Permission

Research permission is paramount and essential in the research process to access a specific population needed for the study. A researcher, therefore, needs to seek approval through writing to someone in charge of the population. The nature of social science research entails gaining access to other people and data to come up with a conclusion or generalization. This means that the researcher needs cooperation from people who have the necessary data for the study. However, the researcher needs to seek and secure permission and to receive an approval from the organizations where the data will be collected (Creswell & Creswell, 2017; Hox, Moerbeek & Van de Schoot, 2017).

After the permission from the organization, the researcher needs to receive consent forms from potential research participants. The present research, which focused on blended education among university students, is social research and thus it has required an authorization to proceed with data collection from the study participants. The application for conducting research was made and it explained research objectives. The participants need to know the objectives of the research in order to help the students understand the purpose of the study or eliminate any problems. Before the information was gathered from the students, they were orally informed about the benefits gained by participating in the study, privacy concerns, and what is expected and not expected of them. I submitted the permission to an Institutional Review Board (IRB) and received the approval (see Appendix A).

Description of Site

In the study, the concept of a research site is essential for the researcher. The process of designing the study also involves thinking about the best possible locations to collect primary data. In social research, the sites in reference can be both physical and virtual where the study can obtain information from online communities or physical areas such as classrooms, library, school, universities, and others. For a researcher, there are two options which include being an insider or a complete outsider (Vogt, Gardner, & Haefele, 2012). In choosing a site, I explored the most convenient and the best place to get information and other interests, such as cultural background and social interests. For the current study, I chose a classroom because it provided the best environment to interact with the participants.

The exact location where the data collecting took place included a lecture class enough to accommodate more than 30 students at EWU in Williamson Hall. People who were at the site included a researcher without an assistant; the process took two days to complete. The rationale of using the site was because it was a comfortable environment for the students to fill out a survey without any challenges, and also helped me reach those respondents who have knowledge about blended-learning.

Data Collection

Data collection is defined as a process of gathering data from study participants to find answers related to the research problem. Data collection is also used to test a study hypothesis and explore the outcomes (Duan & Hoagwood, 2015). The process of data collection entails the collection and measuring of data and checking it against the variables of interest. This process must be systematic in a way that information is presented in a way that answers the research questions. Hypotheses are also tested, and

outcomes are evaluated. The data collection component is a common aspect in all fields of study namely social and physical sciences, business and humanities and other areas. While there is a variation in methods depending on discipline, the emphasis is placed on collecting accurate data that follows all the agreed rules (Hussein, 2015).

Regardless of the field of study, accurate data collection is important because it maintains data integrity in research. Improperly collected data leads to an inability to research the research questions; the study cannot be validated or repeated by other researchers. If a study is badly all signed, the outcomes of the study are likely to be distorted findings, and thus misleading to other researchers. If the focus was the formulation of public policy, decisions could be compromised (Taylor, Bogdan, & DeVault, 2015). Finally, they cause harm to study participants and other subjects and wastage of resources. Concerning this, this study carried a rigorous process of preserving data integrity and early detection of errors during the process of data collection by explaining the students and respondents on how data will be handled and used. This focus eliminates as intentional and deliberate falsifications and other random errors (Hox, Moerbeek, & Van de Schoot, 2017).

Data collection techniques are of two categories namely primary and secondary methods. Primary data collection methods include both quantitative and qualitative approaches to data collection. Quantitative data collection techniques include a data collection and analysis where survey is used to gather information (Creswell & Creswell, 2017; Hussein, 2015). On the other hand, qualitative research techniques do not involve mathematical calculations or numbers and are closely associated with words, emotions, feeling, and other aspects that cannot be quantified. Qualitative studies seek an in-depth

understanding while qualitative methods use survey, interviews, focus groups, and case studies among others. The choice between the two methods is determined by the area and nature of research such as aims and objectives (Creswell & Creswell, 2017).

Tools of Data Collection

The section of the study will explain how data was collected and the tools used in the process. It is essential to define data collection as proposed by scholars. Means of data collection include instruments and other devices employed in the process of data collection. These tools include a paper survey and software-guided interviewing system. In the same breath, it comprises a range of methodologies used in the identification and collection of information and evaluation. Some examples include formal and informal surveys, interviews, direct participation, observation, expert opinion, focus groups, literature search, and case studies. This study employed both survey and face-to-face interview to collect data and information from respondents (Glesne, 2015).

There are various reasons why the study relied on a survey and interview to gather information from the respondents. Survey and interview are cheaper and faster in collecting data compared to other means. Both have standardized questions, and these unifying questions make it easier to compare results between different peoples. Because the answers are having enclosed options, it is easier to arrange, tabulate and analyze the findings (Cleary, Horsfall, & Hayter, 2014).

Survey

Surveys are used in this study. The term survey is defined as a series of questions designed to gather data with the aim of answering study questions from study participants (Flick, 2017). The tool is administered to more than one individual, but not all responses are aggregated for analysis and interpretation. A survey is not to be confused with a

questionnaire because both have different approach and purposes. For instance, a survey collects information from respondents for statistical analysis and the responses are used to make a conclusion. Mostly a survey is a tool of data collection utilized for data gathering purposes in survey research the apparatus comprises standardized questions exploring a specific phenomenon under study as seek a variety of information such as demographics, attitudes, opinions, and behaviors. The instrument is also accessible online and is created using popular programs such as Survey Monkey, Google Forms, and Poll Everywhere at incredibly low cost (Cleary, Horsfall, & Hayter, 2014).

In this study, the choice of data collection includes a survey because it answered research questions and the purposes of the study. The survey approach is where the researcher focuses on a group of people participating in the study. A survey approach, in this case, includes the tools used in assessing individual demographic characteristics, public opinion using a survey and a sampling method. In this study, data was collected from these respondents, analyzed and findings generalized from a sample to represent the whole population or the entire group under investigation.

The survey used has 16 questions divided into three sections seeking demographic information of the respondents, personal experience regarding blended education, perspectives about blended courses offered by the university, the importance of these courses, and their effectiveness in imparting knowledge to the students. Questions used in the survey were open-and close-ended, which gave both the researcher and the participant some level of control in answering the questions. surveys were administered to the respondents directly by the researcher where the objectives and benefits were explained.

Participants were then given time to fill the questions before handing it back to the researcher. See the survey questions of my study (Appendix B).

Interviews

According to Glesne (2015) the term interview is defined as the verbal conversation taking place between two or more people with the purpose of collecting relevant information for the study. In-depth interviews are important in research and are one of the used in data collection to answer research questions. In my study, individual interviews (one-on-one with participants) were used and data recorded using an audio recorder and simple notes written. There is a primary difference between an interview and direct observation, based on the nature of the interaction. In interviews, there is a researcher, who is a questioner, interacting as the interviewee answers various questions relating to the study. The purpose of this structured interview includes probing the ideas of the individual participants concerning the study phenomenon and other interest. Interviews can also be used to record a participant's experiences and opinions regarding the event under study.

Flick (2017) explains various types of interviews used in the study, and this includes personal, telephone, focus group and in-depth interview. Personal interview comprises face-to-face communication between the researcher and the respondents. The process is planned and structured in a way that answers the research questions. In the case of a personal interview which is used in the study, the process begins with a preparation that encourages rapport building, introduction, probing, and recording. Hox, Moerbeek, and Van de Schoot (2017) adds that the purpose of rapport is to create familiarity and receptiveness between the researcher respondents. The process also entails making them

believe the essence of their opinions in research, an introduction of both researchers and interviewee, probing the respondents, encouraging them to answer questions. In this process, the researcher also ensures the responses are well recorded using an audio recorder, and in books. The closing of the interview is the last process and includes thanking the respondent and assure them the vital role they played.

However, other researchers prefer using telephone interview to gather information from the respondents. In this process, data is collected by asking questions through the phone (Taylor, Bogdan, & DeVault, 2015). The advent of technology has enabled the combination of computer and telephone, and this has made it more popular with many researchers. Specific advantages and disadvantages are associated with phone interviews. Also, focus group interview is used by researchers during data collection and uses an unstructured interview led by a moderator who moderates a discussion of respondents made of small groups exploring a specific topic. Lastly, there is another approach known as in-depth interview, which is non-directive because respondent has the freedom in answering questions but restrict them to certain define boundaries relating to the topic of interest (Cleary, Horsfall, & Hayter, 2014).

Data was also collected qualitatively from participant using a structured interview. The questions used in the interview were different compared to those used in survey and sought in-depth information in the study. According to Hussein (2015) the primary purpose of conducting a research interview includes having a comprehensive view of the subject under investigation, and experiences on the specific topic. Qualitative methods, such as participant interviews used in the study are instrumental in providing a deeper understanding of the issues under analysis that from what would have attained

using purely quantitative approaches namely survey. Blended-learning is a subject less known in Saudi Arabia, and thus the use of a participant interview was the most appropriate to acquire detailed insights and views from individual participants.

The study relied on individual participants to gather information about blended-learning in higher institutions of learning. Information gathered sought to understand whether the participants have participated in any blended course, whether they disagree with blended-learning, factors that would increase enrollment in universities and others. Besides, the interview also explored which classes are best fitted for a blended approach, and the best level to introduce such courses. The setting in which the information was gathered includes a classroom, where only the researcher and the participants were present. These participants were not required to have experience about the blended education just knowledge, but if they have experience that is good. Before introducing any questions, respondents were asked whether they were ready to go ahead with the process and a brief session of inquiry and answer proceeded for less than five minutes. See the interview questions of my study (Appendix C).

Data Analysis

This section explores data analysis in the study. The purpose of data analysis includes interpreting data and the revolving themes in the research. Therefore, the process of data analysis is to facilitate understanding the phenomenon under study. Many researchers easily confused the means with content analysis whose purpose is to identify and describe the study findings (Hussein, 2015). The process was carried out in three stages namely deconstruction, interpretation, and reconstruction. These phases happen

after analysis of gathered data is sorted and ready for transcription and verification of information contained in the survey.

The first process is known as deconstruction where the researcher breaks down data into various parts to reveal what is included. At this stage, the survey is read and interview transcript, categorized and coded to describe the data. After this, interpretation follows, and this is where the researcher makes sense of data in a bid to understand what is included in the coded data. For instance, data and information are compared across data codes and against variables under evaluation in the study. For example, it involves discussion, comparison of similarities along the revolving themes. Also, the finding may be modelled along existing theories and studies to explain the relationships between ideas and the dominant themes (Hussein, 2015).

The last phase is reconstruction, and this is where the researcher repackages the prominent themes and codes to reveal the relationships gained from the interpretation phase. The broad objective of this includes explaining in light of existing models and knowledge. One or two central concepts will emerge as fundamental or overarching, and others will appear as subthemes that further contribute to the fundamental concepts. Also, findings are contextualizing, positioned and then framed in the context of existing evidence, theory, and practice (Hussein, 2015).

In my study, the analysis coded in a table sought to understand the responses provided by respondents in the survey and interview process. The process of analyzing data from the survey and interview data was to have a deeper understanding of the data findings, reveal new ideas, models, and relationships between them.

This section describes data analysis procedures applied to determine the effectiveness of blended-learning among adults in higher education. Data was collected using surveys and interview participants to investigate all the research questions. Taylor, Bogdan, and DeVault (2015) defined the term data analysis as the process in which the researcher systematically uses statistical approaches to describe, illustrate, and evaluate data. Cleary, Horsfall, and Hayter (2014) argue that the purpose of analytic procedures includes a way of drawing an inference from data and information collected from respondents and also elimination statistical noises present in the data.

This study collected both qualitative and quantitative data using survey and interview methods. Analysis and presentation of this data were analyzed and presented differently. Quantitative data were analyzed statistically, and findings presented using tables while qualitative data was analyzed and presented qualitatively detailing the views and perceptions of the participants. The procedures and processes applied in qualitative data analysis explained the effectiveness of blended education to create sufficient understanding and interpretation of the situations and opinions of the participants.

Chapter Summary

This chapter covered the research design and methodology, sampling techniques, philosophical assumptions of qualitative and quantitative approach, study participants, and data collection and analysis. The study sought to establish the effectiveness of blended-learning employed in universities, and the findings were centered on a quantitative and qualitative survey backed by a participant interview. To gain an understanding of how blended-learning might be used across Saudi Arabian universities, convenience sampling of U.S. students and global students in a U.S. university was

employed, and data was collected, analyzed, and presented through tables. Data analysis was coded through percentages and interpreted to discover the dominant themes concerning study objectives.

CHAPTER FOUR

Data Presentation and Analysis

This chapter deals with the presentation and analysis of the data collected from the field. The analyzed data is displayed in tables and uses percentages to create more meaning in the coded data. Qualitative analysis of survey questions and the participants' interview was completed to develop an understanding of the data collected after the study. This chapter consists of six sections that include the introduction, description of the project and what happened, changes made, and the rationale for the changes made. It also explains the process of data collection and analysis and demonstrates a range of challenges experienced while implementing the project.

Project Description

This study explores the effectiveness of the blended-learning environments with a narrow focus on the challenges facing adults in institutions of higher learning. The project was inspired by the fact that Saudi Arabia does not have a single institution offering a blended education approach. Many students in traditional high education systems end up dropping out of college and universities. Most of the affected students include married men and women and employed people. If blended education was introduced in higher learning institutions, many of those with family and job commitments might be more likely to finish their studies since they cannot learn effectively while they are working or taking care of their families. Therefore, I decided to explore the topic of blended-learning to understand the attitudes and perception of students toward the introduction of blended in Saudi Arabia colleges and universities. Implementation of such ideas in Saudi Arabia will be very beneficial to affected learners

because they will have access to classes online and meet during the weekends or afternoon to discuss the themes shared online.

Changes Made in the Study

Since the research study began, various changes have taken place due to a variety of factors. The process of writing this research project report included performing a particular academic task. The first idea began by generating a topic for study, planning and executing the subject, and collecting and recording the findings gathered from the field. I encountered challenges that required changes to be made. In the first chapter, the objectives were altered to make them measurable and contribute new knowledge in the area of research. The moves coincided with changes in the literature review to align it with the study objectives.

Research methodology parts were prone to changes such as study participants, methodology to be used and tools of data collection. Survey relied on Likert scales to measure the perception of the students toward blended-learning approaches in Saudi Arabia. To better be able to measure the intended objectives in the study, minor changes were made. The nature of the data collection dictated some of these changes, and study objectives assessed. Other changes explained below were prompted by the English proficiency of the student participants. In Saudi Arabia, many students cannot understand advanced English directions, and thus basic English language was used to modify some of the original.

The survey revision started with my friend who was proficient in English and helped to look through the student participant survey. In this stage, some suggestions were made namely removing some words and sentences that might have brought

confusion or lead to a misunderstanding of what was required. Therefore, the researcher reviewed this question in the context of wording and amended the survey to make the language used to be more straightforward and make the meaning more precise based on the language experience of the participants.

To assess whether the intention of making the wording and sentences understandable, the survey was piloted with four (4) representative students in Saudi Arabia were requested to read through the whole survey and indicate areas they did not understand in the Likert scales and the general questions. The result of this was impressive because students took less than five minutes to scan the whole survey and only a few words posed challenges to prospective study participants. I found that the representative students didn't know anything about blended-learning so they gave me unclear information for my study, so I revised my plan and decided to do the survey at the site described in chapter 3. That way, I was able to include students who had taken at least one blended class, and interview Saudi women's who were students at EWU, so I could get more clear information for my study.

The researcher, with the help of these students, suggested simple synonyms to deal with the challenging words but still retain the original meaning and direction of the question. The process stopped when the students understood all the wording and sentences. The end objectives were for the researcher to know whether the students were able to follow the general directions and questions. The whole process did not consume more than 15 minutes. In this study, this tool was better because it addressed the issues needed to understand students' perception of blended learning environments.

Results of the Survey

The study survey collected data from 22 students concerning the effectiveness of blended-learning education in universities. Quantitative and qualitative information was obtained using the tool and divided into three categories. The first section sought to understand demographic aspects of the respondents, why blended-learning was viewed as very important in universities, level of agreements with what university provided concerning blended-learning, and how different aspects were helpful to students. Besides, the survey captured data relating to the most and least useful components of blended-learning, and views considering taking a blended course in any university.

The Likert scale, a series of questions and rating on a scale that ranges from one extreme to another, was employed to gain respondents’ experiences and views. As a result, the study adopted a Likert scale to understand how students perceived blended-learning. In the second section of the survey, the Likert scale was used from question 5 to 13. The Likert scale was used when surveying respondents regarding their experiences to understand the overall effectiveness of the subject under study.

Gender of the Participants in the Study

In this first question in the survey, the study sought to capture the demographic characteristics of the students and more specifically, gender. It is essential to achieve this aspect because it helps to understand the division regarding opinion between males and females in the study.

Table 1. Gender of the Participants in the Study

Gender	Frequency	Percentage
Male	7	32
Female	15	68

Total	22	100
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The study collected data from both males and females. Data showed that 68% of the respondents were female and 32% were males. According to the data, both genders understood the issues of blended-learning and formed a particular opinion regarding its implementation in a higher institution of learning.

Age Bracket of Participants in the Study

The study also sought to explore the age of participants in the study. The age of the respondents ranged between 22 and 53 years. This broad range of ages helped to provide insight into the popularity and consideration of blended-education options across all age groups. Many adults in the university considered this type of education as a viable option for them. As discovered by the study, blended-learning was not only for youthful students, but it can also be embraced by employed and married people who do not have required time to attend traditional classes due to tight schedules and other personal commitments.

Number of Blended Courses Taken in a Semester or Quarter

In this section, the study collected data regarding their social status with the view to understanding whether they have a family, job, both or nothing. This was important for the research because it helped me to understand the kinds of adults that would prefer to take blended-learning courses.

Table 2. Respondent Social Status

Social status	Frequency	Percentages
Family	1	5

Job	6	27
Both	12	54
None of the above	3	14
Total	22	100

Table 2 shows that some of the participants were employed, some had a family, others had both, and some did not have a family or a job. From the raw data collected, it was evident that only 5% of the respondents had a family, 27% were employed, 54% had both family and jobs, and only 14% did not either have a family or employment. One can conclude that the majority of people considering blended education are those who had families and jobs because it was useful for them and aligned with their busy schedule. It is also important to note that busy people and those who had family commitments were more likely to enroll in online courses.

Students’ Response to Item 5 and 6

The study gathered data from the students regarding the importance they attached to blended-education. Two options were provided in the survey namely convenience of not having to go to campus more often and flexibility of being able to complete assignments anyplace/anytime. A Likert scale was adopted to rate student’s views regarding how they felt about the course and responses rated from 1-5: (1) extremely important, (2) very important, (3) moderately important, (4) slightly important (5) not at all important.

Table 3. Students’ Response to Item 5 and 6

Responses	1	2	3	4	5
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Convenience of not having to go to campus more often	27%	31%	31%	0%	9%
Flexibility of being able complete assignments anyplace/any time	40%	36%	9%	5%	9%

From the data collected, 27% of the respondents cited convenience of not having to go to campus more often and 40% cited flexibility of being able to complete assignments anyplace/anytime, got a rate of as extremely importance attached to the need for blended-education. 31% of the respondents cited convenience of not having to go to campus more often and 36% cited flexibility of being able to complete assignments anyplace/anytime, got a rate of as very importance. 31% of the respondents cited convenience of not having to go to campus more often and 9% cited flexibility of being able to complete assignments anyplace/anytime, got a rate of as moderately importance. 0% of the respondents cited convenience of not having to go to campus more often and 5% cited flexibility of being able to complete assignments anyplace/anytime, got a rate of as slightly importance. 9% of the respondents cited convenience of not having to go to campus more often and 9% cited flexibility of being able to complete assignments anyplace/anytime, got a rate of as not at all importance.

Thus, this implies that universities and colleges in Saudi Arabia might consider investing in blended-learning because students attach a high level of importance compared to the traditional approach to learning. Though this sample is small, the findings may help to provide insight into on the reasons why universities need to invest in blended-learning now and not in future because the method is convenient and thus will

attract many students who find it hard to fit in a traditional classroom due to various factors but have the will to attend university and complete university education.

Students’ Response to Item 7-9

In this table, the study sought to know student's perceptions and feeling regarding blended courses provided for in the university. The focus was whether there are enough blended courses provided, level of information available in these courses, and satisfaction among respondents about the courses offered in the university. In this table, the data gathered from questions 7-9 are represented. The Likert scale represents the following levels: (1) strongly agree, (2) moderately agree, (3) neither Agree or disagree, (4) moderately disagree and (5) strongly disagree.

Table 4. Students’ Response to Item 7-9

Item	1	2	3	4	5
The university provides enough blended courses for any major.	18%	32%	27%	23%	0%
The course provides extensive information such as links about technical support for online learning.	23%	18%	32%	27%	0%
Overall, I am satisfied with blended courses offered.	45%	36%	5%	14%	0%

Participants answered question starting with whether they agreed with statements indicated in the tables following Likert levels provided. Students who strongly agree

decided on the university offers enough blended courses for any major 18%, the course includes extensive information such as links about technical support for online learning 23% and satisfied with the classes 45%. Students who moderately agree decided on the university offers enough blended courses for any major 32%, the course includes extensive information such as links about technical support for online learning 18%, and satisfied with the classes 36%. Students who neither agree or disagree decided on the university offers enough blended courses for any major 27%, the course includes extensive information such as links about technical support for online learning 32%, and satisfied with the classes 5%. Students who moderately disagree decided on the university offers enough blended courses for any major 23%, the course includes extensive information such as links about technical support for online learning 27%, and satisfied with the classes 14%. Students who strongly disagree decided on the university offers enough blended courses for any major 0%, the course includes extensive information such as links about technical support for online learning 0% and satisfied with the classes 0%.

Concerning the above findings, the majority of the students agree that courses offered by the institutions are helpful among a large population of students and the level of information provided is sufficient. For example, the staff offers technical support needed by the students such as providing links and other technical information that makes the students life good and therefore satisfactory to them. In addition, student agrees the courses provided by the university are sufficient but there is need for the administration to keep expanding this based on the student's feedback about the courses. As a result, the level of satisfaction among the students is very high. However, as indicated by the 27%

of students whose effort is needed by the university to make the course more attractive and sufficient for students.

Students’ Response to Item 10-13

In this table, the study sought to understand how students perceived various aspects of the blended courses. These aspects include course syllabus, lectures and activities, and the level of interaction, and discussion between teachers and students. To record the views of the students concerning the course, the Likert scale was used at various levels with (1) representing extremely helpful, (2) very helpful (3) moderately helpful (4) slightly helpful (5) not at all helpful and (6) not applicable.

Table 5. Students’ Response to Item 10-13

Items	1	2	3	4	5	6
Course syllabus	73%	18%	5%	0%	0%	0%
Course lectures and activity	45%	23%	18%	5%	5%	0%
Course interaction such as questions, answers, and discussions	50%	18%	18%	5%	5%	27%
Course quizzes and tests	36%	18%	9%	9%	0%	23%

According to table 5, 73% of the participants rated the course syllabus, 45%lectures and activities, 50% course interactions and 36% course quizzes as extremely helpful, 18% of the participants rated the course syllabus, 23%lectures and activities, 18% course interactions and 18% course quizzes as very helpful. 5% of the participants rated the course syllabus, 18%lectures and activities, 18% course interactions and 9% course quizzes as moderately helpful. 0% of the participants rated the course syllabus,

5%lectures and activities, 5% course interactions and 9% course quizzes as slightly helpful. 0% of the participants rated the course syllabus, 5%lectures and activities, 5% course interactions and 0% course quizzes as not at all helpful. 0% of the participants rated the course syllabus, 0%lectures and activities, 27% course interactions and 23% course quizzes as not applicable.

According to the findings, most of the students rated the courses as very helpful and extremely helpful and this is an agreement that blended courses aspects are of great help which may be because of how they are designed and availability of a platform that allows students and lecturers to have a meaningful discussion that fosters learning. Therefore, the approach used by the university makes the student feel the courses as very helpful because they solve the underlying issues, or the shortcoming of both traditional face-to-face and online methods used in some cases.

Qualitative Analysis of Data from the Survey

The process of analyzing qualitative data from the survey comprises a methodology that codes and categorize the information contained in it. This is one of the essential phases of the data analysis process. The first step includes dividing the data collected from the study participants into codes. This means a close interrogation of the data to identify and label recurrent words, themes and concepts as defined in the study. In the case of this research, the study approach includes examining words and sentences to decode relevant data related to the overall research question. It also involves using descriptive information to answer the underlying research question.

In my study, the student survey contained 16 questions, and only 13 were presented using tables and followed by descriptive analysis. Some questions explored

required students to give their views about blended-learning. Notably, the focus included the most useful aspects and least valuable aspects of the learning approach and advice to other students who would consider a blended approach to learning.

The Most Useful Aspect of Blended Learning (question 14)

The rationale of asking what the most effective aspect of this blended-learning course was? was to understand how the course helped learners engage with others to achieve desired learning outcomes. Also, it elicited reactions concerning students' perception of the learning environment and how they felt about the course. The students gave their responses based on their experiences about the blended-learning approach. One of the most cited reasons was the ability of the course to allow both online and physical interaction and discussion, the ease of accessing content materials without physically walking to the university and doing the assignments online. This included meeting at least once per week to deliberate the progress. Others argued that the method of learning was useful because it allowed them to move at their own pace and only come to campus when the need arises.

Student participants noted that the quality of education was improved by the ability to have an online discussion with others. This was effective because students could leave a question or remark about an issue to be attended to when others were free. Contrary to the traditional approach, discussions needed to take place simultaneously due to the nature of the procedure. There was an agreement that blended courses encouraged and allowed meaningful debate between students and instructors. One of the participants commented that an "Assignment is due every two weeks which allows personal defined

pace.” This was similar to other students who agreed the blended courses were flexible regarding content and class attendance.

According to the findings, the use of technology in blended-learning make is possible to have presentations about sophisticated issues and students take part in live debating or even discuss topical matters of a certain subject. Instructors in this case presents challenging tasks to students by asking them to prepare questions and quick discussions about particular subject areas for revision prior to presenting assessments. Furthermore, students also take part in live debating; discuss trending issues and voicing their opinion and thoughts via the polling functions in the tool (Schullo & Venable, 2015). In addition, Schullo and Venable (2015) explains that students can utilize video conferencing for learning and teaching strategies. For instance, it allows collaborative engagement between different groups who can discuss a certain topic and maintain sessions on topics from readings and other learning materials. The instructor can engage with students on how to solve obstacles in the course.

The Least Useful Aspect of Blended Learning (question 15)

The next question sought information concerning some of the challenges and inefficiencies generated by blended-learning approaches. The aim of this question included collecting data from students to understand certain aspects of the university's blended-learning approach that were considered least effective because it affected the learning process. While there were some benefits as explained by students, some aspects

of blended-learning were not conducive to some students due to various reasons as defined by students.

Some of the responses by students were not included because they failed to focus on the theme of the question. For students with families and jobs, the quantity of assignments in blended courses was too much to handle thus making it ineffective. When the approach allowed natural interaction with course instructors, some problems were better-solved face-to-face and thus being unable to access them when it needs it challenging.

Based on the finding from the respondents, the research makes the following comments regarding the approach now and in future. Compared to traditional and online only, blended-learning is seen as the best of both because of the way it allows for both face-to-face interaction and online support structures. This is because it increases in-class active learning time by shifting delivery of content to the online environment. However, universities need to be motivated programs to motivate student to take this classes and further improve its effectiveness and efficiency to students.

Recommendation to First-Time Students in Blended Course (question 16)

This question explored views of experienced students and the suggestions they gave to first-time students considering registering blended approach courses. The set of recommendations were based on the personal perspectives and made recommendations on factors that students needed to consider before enrolling in such a course. Based on the responses given it is essential to pinpoint that less interaction between lecturers and students characterizes a blended approach to university education. however, participants in the study recommend other students to engage professors when opportunities arise.

The participants also advised future students to take charge of the course by effectively managing their time and heaviest the self-discipline to be successful in the course.

The aspect of technology makes blended courses more useful but, in some cases, makes it less effective depending on the skills required to maneuver. In these cases, a student considering the platform is advised by participants to have self-management skills to learn the structure associated with the courses especially when managing the assignments and course contents. Blended education has minimal supervision from the lecturer and thus people who are not tech savvy and have poor time management skills can be less successful. The course, however, is recommended to students who have knowledge of how to use the Software or Canvas used in the management of the course, and those who are skilled in time management and need less supervision to implement their plans.

According to qualitative data from students, blended-learning was recommended to those who are comfortable learning for themselves and can endure using technology to manage course content. Also, it requires those comfortable with communicating with their instructors electronically via email, especially for hybrid sessions. Similarly, crucial in hybrid classes students are recommended by the participants to contact their professor in person as well, consulting him on issues that pose challenges.

Not all participants made a recommendation to students who may be aspiring to take the courses, some answers were ignored, and some of them did not recommend the course without giving a valid reason. The revolving theme, however, is that blended classes require self-efforts from students such as time management, following online instructions, and being on time to submit instructor's requirement.

Analysis of Participants' Interview

I collected data and information from the interviewees and recorded them using an audio recorder. For many researchers, taking an interview is a critical part of their job and one of the challenges they face in preserving the accuracy of data gathered from respondents. In simple terms, the concept of interview transcription is the art of taking a recorded interview and translating it into written transcripts without compromising the accuracy of the information as recorded from the study respondents. Chances exist of committing fatal mistakes that change the actual version provided by interviewees and desired by the interviewer. For a research finding to be reliable, the integrity of data and information must respond to study objectives. Using the technique is very effectual because it is possible to obtain desired information from the audio and written text and to understand the evolving themes in the study.

Currently, the advent of technology has provided myriad of benefits such as making the work of a researcher and interviewers easy in capturing all data and information. A researcher can comfortably record the interview with the help of a phone or a digital recorder and later review the entire conversation in the comfort of his/her desk. This approach is used in research because it is easier to tape an interview and then listen later to record findings in written form. The process of transcribing these interviews relied on a manual process where the researcher decoded the discussion to discover the common themes in the study.

To explore the effect of blended-learning among adult learners in universities, participant interviews were employed (see Appendix C). I collected data from seven women participants. The questions sought to explore various theme namely the effectiveness of blended learning in Saudi Arabia universities, the number of students

who had blended-learning experience, recommendation on such courses, and the best types of course fitted to their approach to education. Before interviews began, the first stages were to create a rapport with respondents and ascertain that they agreed to provide answer to essential questions. Transcription will be categorized into questions, and revolving themes explained.

The first question posed to the students required them to state whether they had ever taken blended courses and whether they agree with the introduction of such classes in Saudi Arabia universities. The primary aim of this question was to understand whether the participants were aware of a blended course and whether they have taken them. It also sought to explore whether the respondents supported taking of such courses and how it would be helpful to them. Seven respondents answered these questions, and none of them had taken the class, while some have never heard of the courses.

All participants agreed that the country needed such courses because of its benefits for those with work and family commitment and its effectiveness in increasing students' performance. According to students, Saudi Arabia has many people with family and job commitments and would like to pursue their education. since all respondent were women, reference was after made to married women with children and a need to continue with higher education. The revolving theme in this is the aspect of convenience, time management, and accessibility of material online. For instance, participants mentioned a student could choose to attend lectures in a theatre or check available materials online. Concerning time management, a student could access the course assignment online, respond to each other online, and get to know the marks without physically seeing the professor.

The next question sought to know whether they would consider taking blended courses if they had a job and family commitments. All the respondents viewed the option as beneficial to those who had such obligations. Participants also argued that if such courses were explored enrollment would increase exponentially because there were many people willing to take the courses because of the need to seek higher education but lacked sufficient time to attend traditional classes. Besides, there were some who do not want to visit the classes physically and thus would be preferred accessing materials online and answering related questions. Many students favored a blended approach to learning despite Saudi Arabia not having any blended courses because of its flexibility and time balancing mechanism due to two options available.

The interview also explored which subjects would be most interesting to taking blended courses. Students stated that the most exciting courses included humanities such as history, law, and social sciences. Also cited as compatible with blended-learning were language courses. Students did not prefer taking blended classes for science courses related to biology, chemistry, or math because there were complicated parts that required an explanation from the teacher because the interviewees felt they could not understand these concepts alone. Further, those courses needed discussion from peers to gain understanding.

The last question asked respondents to state the level at which they think blended-learning would be most successful. All the seven participants agreed that graduate and undergraduate levels could be the most effective levels to implement blended education. Secondary levels were rejected because at that level adolescent students had not developed the capacity to read for themselves and required constant guidance from the

teacher. Besides, these levels followed a curriculum and thus may not fit for blended-learning. At the college level, students were used to learning for themselves, could seek complementary materials online and could guide themselves in education. Based on the findings, it is critical to state that government policies need to consider incorporating blended training at university level on a pilot basis before considering other levels of education.

Research Limitations

The limitations in research relates to characteristics of design or methodology that impacted or influenced the interpretation of the findings from the study. Although this research was well and thoroughly prepared, there is a range of limitations and shortcomings that affected the findings of the study. First of all, the study was conducted within a short time that lasted about eight weeks. Eight weeks is not sufficient for a researcher to comprehensively gather required data from students. It would be better if more time were allocated or available to examine all the variables and the source of that information.

The next limitation includes the size of the sample population sampled to represent the views of the study population. Sample size depends on the nature of the research problem and the variables under investigation. The actual limitation of the study includes the type of sampling technique used and the selection of a small sample size. The study relied on a sample size of 22 respondents and 7 interviewees, and statistically, this is too small to validate the findings and make a general conclusion for the study. It would have been better if the sample used was massive enough to identify significant relationships between variables under study and answer the research question

comprehensively. According to the nature of the study, a larger sample size could have generated accurate results to make an acceptable conclusion. The larger size of quantitative studies, the better concerning the validity of the findings.

The next limitation includes the tools of data collection. The survey was designed to measure student's views and attitude towards the introduction of blended-learning approach in Saudi Arabia universities. When the students gave their opinions, they may not portray the right attitude and views because they were at the end of the quarter on the last day, and many of them just wanted to finish and go, so the information and data collected may not reflect the real situation.

Lack of previous studies in this area of research is also another problem facing the study. The focus and scope of this research did not have enough literature because only a handful of investigations have focused on the area of blended-learning. The most significant limitation is the fact that previous researcher in this area did not delve into the contemporary and evolving pedagogy of blended-learning while others delivered a narrow focus on the research problem, especially in the field of blended-learning approach across universities.

The study has chosen to explore the possibilities of blended education for universities in Saudi Arabia. The fact that Saudi Arabia does not have such a system of education means the research done and findings do not reflect the real situation there.

The final limitation includes the scope of discussions in the study. One barrier that researchers face, especially those with no adequate experience, consists of the choice of focus and the research area. The researcher does not have many years of experience in carrying the nature of research producing educational projects this big due to the depth of

discussions and scope. As such, the project may be somehow compromised in various levels when compared to work of experienced researchers.

Challenges Faced in Research

The research met myriad problems from choosing the topic to a conclusion. However, these challenges did not impact the final results of the study because they were avoided. Irrespective of education level, carrying out research is an essential part of the scholarly practitioner and required skill. Despite this, the research process poses many challenges right from the start to the end. In this study, the challenges faced included choosing an appropriate topic, sourcing the right participants, selecting methodology and data analysis.

The first challenge was choosing the right topic for the study and framing it in a way that I could test it. In the process of research, the topic forms the foundation of everything that happens until it is complete. Specific challenges faced in this study included developing a doable theme about available resources, time, and one that filled particular gaps in the research. In addition to this, another challenge was reading all the materials relating to my topic and deciding which area needed attention.

Regarding the literature review, the challenge was finding a topic with sufficient theoretical support. When all the factors considered might be satisfied, the problems go back to making sure the theme chosen is interesting because considerable time will be spent reading materials related to dissertation and collecting data on the same. The challenge was dealt with accordingly by consulting friends who have faced the same problem. This helped me narrow the focus and pointing toward specific issues. The point taken, and the lesson learned is that research is not an exploration of the whole world but

adding to a body of knowledge by narrowing the scope. Fine-tuning my topic based on input from others helped me solve the challenge and proceeded well.

The second challenge revolved around choosing the right methodology. After selecting and fine-tuning it, all efforts focused on the proper method to determine. I had no information on the best and available techniques employed in getting the appropriate methodology for the study. The researcher did not have known that the best methods for the study are derived from the research problem and questions and not personal preferences. The challenge was solved by reading research books and understanding that the research question used to determine the type of design and methodology to answer the research questions. After exploring the direction taken by the research, the researcher was able to look into detail at the appropriate design and methodology. Besides, it was solved by determining and figuring the study participants which was to provide data for the study.

The third challenge included choosing the right sampling technique and study participants. Once the topics and methodology have been determined; it is time to find the best-fitted participants. The big challenge here included recruiting the right participants for the study. I knew I wanted participants from Saudi Arabia but students there had no personal knowledge about blended-learning. So, I had to do it here at EWU. The latter has students who are much aware of what it is to have blended-learning because of the experience from themselves and from close associates, and I was able to find several international students from Saudi Arabia to interview. For the study, the primary intention was to get people who know what blended-learning means to offer sufficient information about the perspective of learning.

After collecting data for the study, the big challenge is making sense of it. Data included filled survey and transcribed data from personal interviews. Another problem is relating and connecting research with existing studies and reviewed literature. The backbone of this challenge is presenting the findings in a way that adds knowledge in the area under investigation. To dissolve the problem, the researcher took a course in research methodologies in the field of education. Also, the researcher took advantage of technology and software that analyzed the existing patterns and data in the study. I also found some data that was irrelevant. Example of the data that was irrelevant includes one that did not answer or satisfy study research question and hypothesis. It also added an account for biases of the individuals interviewed before generalization and conclusion to the broader population had been made. Lastly, a researcher has to let data drive the presentation by arranging it around research questions.

Lastly, the challenge of staying motivated during the whole research process is hard for many even when no problems are being encountered. The fact that a research project is big and requiring commitment makes it hard to maintain the motivation needed to keep the process going. One of the strategies employed in this includes managing and monitoring the attitude, following one's passion and purpose. Believing that the findings and conclusion will have a social impact in Saudi Arabia education system made me stay positive and killed the negative thoughts.

CHAPTER FIVE

Conclusions and Reflections

Chapter five of this project focuses on describing what the project findings are and my thoughts about the process of conducting the project. The main aim of the project included exploring the effectiveness of blended-learning among adults in institutions of higher learning in order to determine if a blended-learning approach would be useful in Saudi Arabia universities. This chapter the whole chapter will be divided into three sections: the summary of the entire project, things that can be done differently if the project was to be done again, and reflection on my professional growth after completing the project. In the first section the study provides the reader with a summary of the findings of the research project. It connects the efforts of data collection and attempts to link the results with a research problem.

Summary of the Findings

The primary objectives of this research were to explore the effectiveness of blended- learning among students in higher institutions of learning. The growth and penetration of technology across the society have coincided with the desire to provide education to the student using other approaches rather than the traditional approach. In response to this, educational institutes are experiencing the shift in instructional platforms to enrich teaching and learning to satisfy variety of needs and demands. As explained by (Porter, Graham, Spring, & Welch, 2014), in recent years, learning practices that encompass blending allow students to access learning materials using technological tools. Technology has made it possible to have platforms such as blackboards, canvas, that support lessons, chat platforms, discussion groups, and sharing of presentations. In this

way, blended learning has a myriad of advantages compared to face-to-face-only classes because it offers an opportunity for both face- to-face and online learning.

The demand is mostly from employed individuals and those whose family commitment cannot allow them to attend classes on a daily basis. The application of the blended-learning approach, which integrates the advantages of traditional teaching with online learning, has drawn the considerable attention to language teaching instructors and researchers. The finding is supported in the literature review as highlighted by various scholars. According to Duart et al, (2014) the case of blended learning is beneficial to adult learners who have many responsibilities such as balancing their work and family roles with their studies. In addition, the benefits also extend to adult students living far away from the university and faced with work and family responsibilities that prohibits them from attending the lecture, they find comfort in blended education. The argument is further supported by Hammack and Marcus (2012) who explain that factors such as learners' occupation, available time, and family duties are recognized as an impediment to learners' academic performance.

In the literature review, the concept of Blended learning also known, as hybrid is the better option compared to either online or traditional face-to-face interaction. This kind of learning is considered efficient for both the students, lecture because it brings on board technology to aid student learning and solves the challenges of how to best engage busy students in a cost-effective and learner-centered way. As such, the approach makes student feel blended learning is helpful to them and this improve the overall perception of blended learning.

According to the findings of this study, there are differences and similarities between students' attitudes towards blended courses and satisfaction with the two different learning approaches as per literature review conducted in this study. This includes the traditional face-to-face teaching approach and a newer more recent approach that encompasses both online and traditional approaches also known as blended-learning. From the data analysis conducted in chapter four, it can be argued that a comparison of both the blended and traditional teaching approach, participants hold more positive attitudes toward the blended-learning approach.

In the literature review, the study recorded differences between student in blended-learning and traditional face-to-face in terms of satisfaction. For instance, Sahin & Shelley, (2008) found that students in the hybrid classrooms are more often puzzled regarding course requirements and this decreases the level of satisfaction for the students. In addition, it was noted that the students who completed the course in a traditional setting were more pleased with the course outcomes than the students who completed the hybrid course. However, the finding from Gee, Strickland, Thompson & Miller, (2017) indicate that senior students were very satisfied with using online platforms, journaling, and websites with faculty and peers. According to the students, the cause of satisfaction was due to the fact that blended programs facilitated frequent email between students and professors, and faculty joined students in discussion boards, and chat rooms. The modes of instruction offered the potential for providing flexible access to content and instructions at any given place and time. Many students stated that online learning provided opportunities for continuous improvement of homework and paperwork and engagement when learning

In regard to student attitudes, the student findings reflect what other scholars have found about use of technology enabled platform in classrooms. According to McCutcheon, Lohan, Traynor, & Martin (2015) interaction in the online environment provided efficient and timely feedback to the student's more than conventional approaches. Further, when compared to face-to-face learning, there is a considerable difference regarding success, attitude, and flexibility by students. Because of blended learning environments, instructors have more time with students.

In the participants' views, the blended-learning approach in the contemporary society is a powerful and useful online based learning platform, which could enable them to get access to solid learning materials, discuss with their peers online, contact with their professors by e-mail, online discussion, self-assess their learning, and monitor their progress. Compared with the traditional face-to-face learning model, participants prefer the newer approach that utilizes the blended-learning model, which could better stimulate their interest, foster their autonomous learning and collaborative learning, and prompt their confidence. For instance, teachers, and student can discuss topical issues related to the theme of that week, and this makes it easier to understand issues.

What to do Differently Next Time

The study was a success and satisfied the research objectives that set through data collection. However, some aspects such as objectives, data collection, sampling techniques and choosing study participants can be done differently to improve the study and make it more informative regarding blended-learning approach in Saudi Arabia. If the study were to be carried again, the objective would be to understand teacher and student perspectives in blended-learning to understand the experience of instructors in

teaching through this approach and how their skills impact student performance. Besides, there would be an attempt to investigate how to improve the experience of a blended-learning approach. An example includes how to train teachers to successfully approach online teaching. Another change that would be considered includes sampling approach and study participants. The most preferred method would be clustered sampling of students and teacher to have a better understanding of blended-learning issues. In this study the main participants were students, and thus there may be flaws and insufficient information provided by the student, and this can be filled by introducing teachers into the mix.

Reflection on my Professional Growth

The study has been instrumental in my professional growth. Both qualitative and quantitative results explored in this study has provided valuable and detailed information regarding the prospective audiences in the area of blended-learning. It has also led to an understanding of the critical elements that need to be put in place to improve the success and application of blended-learning in higher education in Saudi Arabia. Professionally, the study has enhanced my understanding of blended-learning in higher education, factors that can be critical in development and improvement of this approach to fill the gaps left by the traditional method of face-to-face in the education sector. Besides, as a teacher in a school, I am much more aware of the kind of infrastructure that needs to be incorporated to improve teacher and student experience in the blended-learning environments. These include development, adoption, and preparing how to cope with the both traditional and blended environments. As a writer I became more conversant with the research process and some of the strategies that can be implemented in the research process. With ample

information about blended-learning course I can give a presentation in Saudi Arabia universities to explaining the need to combine conventional and online methods to increase its effectiveness for different kinds of student such as those employed, with families and unemployed and the challenges likely to be faced. In addition is the future dynamic of blended approach in learning.

References

- Abubakar, D., & Adetimirin, A. (2015). Influence of computer literacy on postgraduates' use of e-resources in Nigerian University libraries. *Library Philosophy and Practice*, 1-17. Retrieved from <http://digitalcommons.unl.edu/libphilprac/>.
- Ahmad, N., & Al-Khanjari, Z. (2011). Effect of Moodle on learning: An Oman perception. *International Journal of Digital Information and Wireless Communications*, 1(4), 746-752.
- Allen, I. E., & Seaman, J. (2006). Growing by degrees: Online education in the United States, 2005. Southern Edition. The Sloan Consortium, 2006. Retrieved from http://www.hommepaschere.com/reports/growing_by_degrees_southern.pdf
- Alonso, F., Manrique, D., Martínez, L., & Viñes, J. M. (2011). How blended learning reduces underachievement in higher education: An experience in teaching computer sciences. *IEEE Transactions on Education*, 54(3), 471-478.
doi:10.1109/TE.2010.2083665
- Anderson, N., & Henderson, M. (2004). e-PD: Blended models of sustaining teacher professional development in digital literacies. *E-Learning*, 1(3), 383-394.
- Astleitner, H., & Leutner, D. (2000). Designing instructional technology from an emotional perspective. *Journal of Research on Computing in Education*, 32(4), 497-510.
- Barshay, J. (2013). Student participation in K-12 online education grows but fewer states run virtual schools and classes. *Evergreen Education Group*, 1(3). Retrieved from http://educationbythenumbers.org/content/k-12-online-education-grows_621/.
- Barshay, J. (2011). " Blended learning" for the little ones. *Education Week*, 31(9), 1-14.

- Beard, L. A., Harper, C., & Riley, G. (2004). Online versus on-campus instruction: Student attitudes & perceptions. *TechTrends: Linking Research & Practice to Improve Learning*, 48(6), 29-31.
- Bernard, H. R. (2017). *Research methods in anthropology: Qualitative and quantitative approaches*. Rowman & Littlefield publishers INC Lanham, New York, Toronto, Oxford. Retrieved from <https://books.google.com/books>.
- Boles, S. R. (2011). Using technology in the classroom. *Science Scope*, 34(9), 39-43. Retrieved from <https://www.learntechlib.org/p/50418/>.
- Borokhovski, E., Schmid, R. F., Tamim, R. M., & Abrami, P. C. (2014). A meta-analysis of blended learning and technology use in higher education: From the general to the applied. *Journal of Computing in Higher Education*, 26(1), 87-122.
- Brannen, J. (2017). *Mixing methods: Qualitative and quantitative research*. London, Routledge. Retrieved from <https://www.taylorfrancis.com/books/e/9781351917186>
- Brown, B. W., & Liedholm, C. E. (2002). Can web courses replace the classroom in principles of microeconomics? *American Economic Review*, 92(2), 444-448.
- Chang, V., & Fisher, D. (2013). The validation and application of a new learning environment instrument for online learning in higher education. In *Technology-Rich Learning Environments: A Future Perspective*, 1-20. https://doi.org/10.1142/9789812564412_0001
- Cleary, M., Horsfall, J., & Hayter, M. (2014). Data collection and sampling in qualitative research: Does size matter? *Journal of Advanced Nursing*, 70(3), 473-475. Retrieved from <https://onlinelibrary.wiley.com/doi/abs/10.1111/jan.12163>

- Cohen, K. E., Stage, F. K., Hammack, F. M., & Marcus, A. (2012). *Persistence of master's students in the United States: Development and testing of a conceptual model* (Doctoral dissertation, New York University). Retrieved from <https://search.proquest.com/openview/7ef8340335c6895e61ccd070807d68bf/1?q-origsite=gscholar&cbl=18750&diss=y>
- Cracraft, L. (2015). *Effect of blending learning on student's percent increase in assessment scores* (Doctoral dissertation, Northwest Missouri State University). Retrieved from <http://www.nwmissouri.edu/library/researchpapers/2015/Cracraft,%20Lyndsey.pdf>
- Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches. *NACADA Journal*, 24(1/2), 156-157.
- Creswell, J. W., & Zhang, W. (2009). The application of mixed methods designs to trauma research. *Journal of Traumatic Stress: Official Publication of the International Society for Traumatic Stress Studies*, 22(6), 612-621. Retrieved from <https://onlinelibrary.wiley.com/doi/pdf/10.1002/jts.20479>.
- Davis, E., Demby, H., Jenner, L. W., Gregory, A., & Broussard, M. (2016). Adapting an evidence-based model to retain adolescent study participants in longitudinal research. *Evaluation and Program Planning*, 54, 102-111. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0149718915001111>
- Dörnyei, Z. (2007). *Research methods in applied linguistics*. New York: Oxford University Press.

- Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533-544. Retrieved from <https://link.springer.com/article/10.1007%2Fs10488-013-0528>
- Duart, J. M., Sancho-Vinuesa, T., & Castano-Mounoz, J. (2014). The Internet in face-to-face higher education: Can interactive learning improve academic achievement? *British Journal of Educational Technology*, 45(1), 149-159. doi:10.1111/bjet.12007.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4. Retrieved from <http://article.sciencepublishinggroup.com/html/10.11648.j.ajtas.20160501.11.html>
- Figlio, D., Rush, M., & Yin, L. (2013). Is it live or is it internet? Experimental estimates of the effects of online instruction on student learning. *Journal of Labor Economics*, 31(4), 763-784. doi:10.1086/669930.
- Flick, U. (2018). *The SAGE handbook of qualitative data collection*. SAGE publications Ltd, London. doi.org/10.4135/9781446282243.
- Gee, B. M., Strickland, J., Thompson, K., & Miller, L. J. (2017). Exploring the influence of an e- learning sensory processing-based module for graduate level occupational therapy students on clinical reasoning: A pilot study. *Occupational Therapy International*, 2017.
- Glesne, C. (2016). *Becoming qualitative researchers: An introduction*. Boston: MA.

- Goyal, E., & Tambe, S. (2015). Effectiveness of Moodle-enabled blended learning in private Indian Business School teaching NICHE programs. *The Online Journal of New Horizons in Education*, 5(2), 14-22.
- Graham, C. R., Woodfield, W., & Harrison, J. B. (2013). A framework for institutional adoption and implementation of blended learning in higher education. *The Internet and Higher Education*, 14-184. doi: 10.1016/j.iheduc.2012.09.003.
- Hox, J. J., Moerbeek, M., & Van de Schoot, R. (2017). *Multilevel analysis: Techniques and applications*. New York; NY: Routledge.
- Hussein, A. (2015). The use of triangulation in social sciences research: Can qualitative and quantitative methods be combined? *Journal of Comparative Social Work*, 4(1).
- Johnson, L., Adams Becker, S., Estrada, V., & Freeman, A. (2015). *NMC Horizon Report: 2015 Higher Education Edition*. Austin, TX: The New Media Consortium. Retrieved from <https://www.zbw-mediatalk.eu/wp-content/uploads/2015/03/2015-nmc-horizon-report-HE-EN.pdf>.
- Kashi, G., & Doost, K. K. (2015). Comparison of the effect of lecture and video projector teaching methods on students' attitude, knowledge and practice. *International Research Journal of Teachers education* 2(3), 030-035.
- Kim, J., Kwon, Y., & Cho, D. (2011). Investigating factors that influence social presence and learning outcomes in distance higher education. *Computers & Education*, 57(2), 1512-1520.
- Kintu, M. J., Zhu, C., & Kagambe, E. (2017). Blended learning effectiveness: the relationship between student characteristics, design features and

outcomes. *International Journal of Educational Technology in Higher Education*, 14(1), 7.

Klein, H. J., Noe, R. A., & Wang, C. (2006). Motivation to learn and course outcomes: The impact of delivery mode, learning goal orientation, and perceived barriers and enablers. *Personnel Psychology*, 59(3), 665-702.

Kruger-Ross, M. J., & Waters, R. D. (2013). Predicting online learning success: Applying the situational theory of publics to the virtual classroom. *Computers & Education*, 61, 176-184.

Kuo, Y. C., Belland, B. R., Schroder, K. E., & Walker, A. E. (2014). K-12 teachers' perceptions of and their satisfaction with interaction type in blended learning environments. *Distance Education*, 35(3), 360-381.

Lin, B., & Vassar, J. A. (2009). Determinants for success in online learning communities. *International Journal of Web Based Communities*, 5(3), 340-350.

Lou, S. J., Chen, N. C., Tsai, H. Y., Tseng, K. H., & Shih, R. C. (2012). Using blended creative teaching: Improving a teacher education course on designing materials for young children. *Australasian Journal of Educational Technology*, 28(5), 776-792.

Manwaring, K. C., Larsen, R., Graham, C. R., Henrie, C. R., & Halverson, L. R. (2017). Investigating student engagement in blended learning settings using experience sampling and structural equation modeling. *The Internet and Higher Education*, 35, 21-33.

McCutcheon, K., Lohan, M., Traynor, M., & Martin, D. (2015). A systematic review evaluating the impact of online or blended learning vs. face-to-face learning of

clinical skills in undergraduate nurse education. *Journal of Advanced Nursing*, 71(2), 255-270.

McIntyre, S. (2016). Conducting effective online discussions. *COFA Online*. Retrieved from http://online.cofa.unsw.edu.au/sites/default/files/episode-pdf/Discussions_LTTO.pdf

O'Byrne, W. I., & Pytash, K. E. (2015). Hybrid and blended learning. *Journal of Adolescent & Adult Literacy*, 59(2), 137-140.

Osgerby, J. (2013). Students' perceptions of the introduction of a blended learning environment: An exploratory case study. *Accounting Education*, 22(1), 85-99.

Oxford Group, (2013). Blended learning-current use, challenges and best practices, 2-18. Retrieved from http://www.click4it.org/images/c/c2/Blended_Learning_Report_2013_Oxford_Group.pdf.

Porter, W. W., Graham, C. R., Spring, K. A., & Welch, K. R. (2014). Blended learning in higher education: Institutional adoption and implementation. *Computers & Education*, 75, 185-195.

Rivera, A., & Meler, M. (2012). Exploring teaching and learning using an I-touch mobile device. *Active Learning in Higher Education*, 13(3), 203-217.

Sahin, I., & Shelley, M. (2008). Considering students' perceptions: The distance education student satisfaction model. *Journal of Educational Technology & Society*, 11(3).

Schullo, S., & Venable, M. (2005). Synchronous e-learning: Proven strategies for teaching at a distance. Retrieved from

https://www.researchgate.net/publication/239924661_Synchronous_E-Learning_Proven_Strategies_for_Teaching_at_a_Distance.

Shraim, K., & Khlaif, Z. (2010). An e-learning approach to secondary education in Palestine: opportunities and challenges. *Information Technology for Development, 16*(3), 159-173.

Shraim, K. (2012). Moving towards e-learning paradigm: Readiness of higher education instructors in Palestine. *International Journal on E-Learning, 11*(4), 441–463.

Strickland, S. (2009). The effectiveness of blended learning environments for the delivery of respiratory care education. *Journal of Allied Health, 38*(1), 11-16.

Selim, H. M. (2007). Critical success factors for e-learning acceptance: Confirmatory factor models. *Computers and Education, 49*(2), 396-413.

Taylor, S. J., Bogdan, R., & DeVault, M. (2015). *Introduction to qualitative research methods: A guidebook and resource*. New Jersey, NY.

Tselios, N. K., Daskalakis, S., & Papadopoulou, M. (2011). Assessing the acceptance of a blended learning university course. *Educational Technology & Society, 14*(2), 224-235.

Verma, S., Patric, S., Staley, P., Horn, M., Fetzer, L., Hibbard, L., Oglesby, J., Watson, J., Powell, A. (2015). Blending learning: The evolution of online and face-to-face education from 2008-2015. Promising practices in blended and online learning series. *International Association for K-12 Online Learning*. Retrieved from https://www.inacol.org/wp-content/uploads/2015/07/iNACOL_Blended-Learning-The-Evolution-of-Online-And-Face-to-Face-Education-from-2008-2015.pdf

Vogt, W. P., Gardner, D. C., & Haefele, L. M. (2012). *When to use what research design*. New York, NY: The Guilford Press.

Willging, P. A., & Johnson, S. D. (2009). Factors that influence students' decision to drop out of online courses. *Journal of Asynchronous Learning Networks, 13*(3), 115-127.

Appendix A (IRB)**Blended Learning Among Students in Saudi Arabia (HS-5561)**

Human subjects protocol HS-5561 entitled “Blended Learning Among Students in Saudi Arabia” has been approved as an exemption from federal regulations under CFR Title 45, Part 46.101(b) (1-6) subject to the following conditions:

1. Please use the attached Study Introduction/Informed Consent Statement with your survey; and
2. Please use the attached Consent Form (to be reproduced on department letterhead) for the interviews.

A signed and approved copy of your application is attached but the approval is contingent upon the above amendments.

Student research qualifying for an exempt IRB review is valid for a period of one year. If subsequent to initial approval, the research protocol requires minor changes, the Office of Grant and Research Development should be notified of those changes. Any major departure from the original proposal must be reviewed through a Change of Protocol application submitted to the IRB before the protocol may be altered. Please refer to HS-5561 on future correspondence as appropriate as we file everything under this number.

Study Introduction/Informed Consent Statement

My name is Tumadher Ekhmimi and I am conducting a study on blended learning as part my master's degree requirements in Education at Eastern Washington University. I am hoping that you will take just a few minutes to complete the survey below.

Please know that your participation in this study is completely voluntary and that your responses are anonymous as they do not require you to disclose any identifying information. Also, you may skip any questions that you are not comfortable answering and you may opt out of the survey at any time. This study is less than minimal risk.

Your consent to participate in this study is implied when you access the survey and answer the questions. If you are under the age of 18, please do not take the survey.

If you have any questions about the study, please contact the Principal Investigator, Tumadher Ekhmimi by phone at (509) 559-9673 or by email attekhmimi@eagles.ewu.edu . If you have questions or concerns about your rights as a participant in this study, please contact Ruth Galm, Human Protections Administrator, 509-359-7971 or rgalm@mail.ewu.

Consent Form**Title: Blended Learning Among Students in Saudi Arabia**

Principal Investigator:	Responsible Project
Investigator:	
Tumadher Ekhmimi	Dr. Vincent Aleccia
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tekhmimi@eagles.ewu.edu	valeccia@ewu.edu

Purpose and Benefits

The purpose of this study is to learn about the effectiveness of blended learning among adults at the university level. This study is of significance because it further contributes to recent literature about the effectiveness of this learning approach. It is hoped that the results of this research will provide greater understanding of ways of utilizing online resources and technological tools in teaching and learning. In addition, it is intended to be helpful to people who want to complete their studies and who have come from different countries including my country, Saudi Arabia. This study is also being done in partial fulfillment of my master's degree in Education.

Procedures

If you agree to be part of the study, you will be one of five Saudi women who have taken at least one class of blended learning (hybrid class) at Eastern Washington University. You will participate a 10-minute-long interview in a library meeting room where I will take notes of your answers. One of the questions I will ask you is: Do you agree or disagree with offering this type of course at Saudi Arabia universities? After the

interview, you will be asked to fill out a 16-question survey using SurveyMonkey.com that asks for your age and gender and some additional questions about blended courses. Your participation in the interview is entirely voluntary. You may skip questions you are not comfortable answering and you may stop the interview at any time without offering a reason.

Risks and Benefits

This study is confidential, and I will not use your name or any other identifying information in my study results. Therefore, the risks of participating in this study is not expected to exceed the risks encountered in daily life. There are not direct benefits to you as a result of your participation, but you will help by contributing to the body of knowledge on the subject of blended learning.

Signature of Principal Investigator

Date

The study described above has been explained to me, and I voluntarily consent to participate in this activity research. I have had an opportunity to ask questions. I give permission to record in which I participate during this interview. I understand that by signing this form I am not waiving my legal rights. I understand that I will receive a signed copy of this form.

Signature of Subject

Date

Appendix B

BLENDED LEARNING SURVEY

1. What is your gender? (tick where appropriate)

Male	Female

2. What is your age? (Please enter a two-digit number only) _____

3. What is the total number of blended courses you have taken this semester or quarter? (Please enter a whole number) _____

4. Do you have?

A-Family	B-Job	C-Both of them	D-Nothing of that
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Indicate the importance you have placed on the following considerations for blended learning courses.

	Extremely important	Very important	Moderately important	Slightly important	Not at all important
5. Convenience of not having to come to campus as often					
6. Flexibility of being able to complete assignments anyplace/anytime					

Indicate your level of agreement with the following statements:

	Strongly agree	Moderately agree	Neither agree nor disagree	Moderately disagree	Strongly disagree
7. The university provides enough blended courses for my major.					
8. The course provides extensive information (e.g., links) about technical support for online learning.					
9. Overall, I am satisfied with this blended course.					

Indicate how helpful the following blended course components were for you

	Extremely helpful	Very helpful	Moderately helpful	Slightly helpful	Not at all helpful	Not applicable
10. Course syllabus						
11. Course lecture and activity						

12. Course interaction (e.g., questions, answers and discussions)						
13. Course quizzes and tests						

14. What was the most effective aspect of this blended learning course?

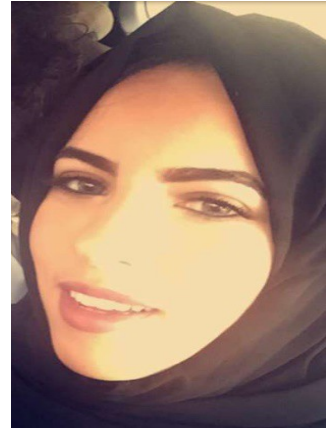
15. What was the least effective aspect of this blended learning course?

16. What advice would you give to a student considering a blended learning course for the first time?

Appendix C**THE INTERVIEW QUESTIONS:**

1. Have you ever taken a blended course? Do you agree or disagree with offering this type of course at Saudi Arabia universities?
2. If you have A-family B-job C-both would you prefer to take blended courses or traditional courses? why? why not?
3. If Saudi Arabia offered blended-learning courses in its universities would enrollment increase why or why not?
4. If this type of courses was offered what sort of courses would you be interest in taking?
5. At which level would blended-learning be most successful? why?

My Resume



Tumadher Ekhmimi

9406 West Anderson Rd, Cheney, WA 99004 | 509.389-3312 | -|966533331522|
tumadherekhmimi@gmail.com

Summary

- o Experience in teaching, helping students, assisting teacher and translating.
- o Strong communication skills; ability to contact with diversity people.

Education

MA Adult Education | Aug 2018 (expected)

Eastern Washington University, Cheney, WA

Diploma English Language | Nov 2014

Spokane Collage of English Languages, Spokane, WA

Cambridge Course | Jan 2013

University of Cambridge International Examinations, Madinah, Saudi Arabia

Diploma General Education in Science | June 2012 | GBA 4.78

Taibah University, Madinah, Saudi Arabia

BA Microbiology | June 2011 | GBA 4.72

Taibah University, Madinah, Saudi Arabia

Relevant Experience

Assistant teacher | Jan 2018 – June 2018

Eastern Washington University, Cheney, WA

- o Assisting the teacher in educational programs by teaching students both listing and spoken English.
- o Translating to students to help them decode relevant information and giving them directions on how to complete assigned tasks.
- o Conducting group and individual sessions to help students improve their listening, reading, and speaking skills.
- o Marking and providing proper feedback on oral and written work.
- o Motivating students to read more and do exercises for the growth of their intellectual capabilities.

Coordinator | Aug 2015 – Nov 2016

Al-Hamrani Company, Jeddah, Saudi Arabia

- Monitoring and coordinating revenue in three different banks.
- Assisting in customer relationship management and dealing with any issues or complaints that arise.
- Facilitating the installation of point of sale machines to help process customer transactions with much ease.
- Monitoring office supplies and placing orders.
- Maintaining records through the effective filling system and updating the database.

Teacher | May 2012

Al-Arbaoun Middle School, Madinah, Saudi Arabia

- Teaching science to middle-school students for one year.
- Teaching students on how to conduct themselves during lab experiments.
- Helping students with revision work for them to pass the exams.
- Evaluating students' performance on tests and lab activities.
- Teaching students on how to make the best use of laboratory equipment and apparatus.

Medical Laboratory Technician | June 2011

- Analysis of blood and urine to detect any diseases or abnormalities.
- Keeping lab results confidential as required by professional ethics.
- Cleaning and sterilizing laboratory equipment.
- Compiling the findings on the completed specimen tasks into reports and submitting them to the physician.
- Maintaining blood bank database and carrying out blood test before transfusions.

Work History

Coordinator | Aug2015 – Nov 2016

Alhamrani company, Jeddah, Saudi Arabia

Skills

IT skills foundation

Microsoft Office – Word, PowerPoint, Excel

Using the Computer and Managing Files

Electronic Communication

Databases

Languages

Fluent in English, spoken and written

Fluent Arabic, spoken and written