

# Perceptions of Blended Learning in Saudi Universities

Submitted by

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## **Abstract**

Saudi Higher Education has started to move with the international trend towards blending face-to-face with online instruction when developing new educational processes. As a contribution to the innovations in Saudi Higher Education, this study explores the perceptions of Saudi female lecturers and undergraduate students towards blended learning from their experience as participants in blended courses.

The advantage of blended learning was recognized by the Ministry of Saudi Higher Education as a solution to the challenge of providing college education to the rapidly growing student population. As the move to a blended learning model represents a radical shift in the Saudi educational system, this study shows how Saudi students and lecturers reacted to this change and how it affected the quality of their learning and teaching experience.

The objective of the study is to identify Saudi female undergraduate students' and lecturers' perceptions of the advantages, challenges and future of blended learning. Consequently, the key factors that influence the lecturers' and students' views are discussed, and recommendations for future research, strategy and practice are provided. Qualitative methods were used to obtain rich descriptive data to facilitate the exploration of the phenomena. Based on interpretative philosophy, the data was analysed in the form of explanation and interpretation of the participants' perceptions of blended learning.

The study concludes that blended learning has the potential to offer a successful learning experience in Saudi Arabia. As there are always challenges of adaptation when a new approach is employed, this research provides insight into how the challenges of implementing blended learning in Saudi Higher Education could be addressed. A theoretical blended learning framework is introduced to provide the factors that influence the implementation of blended learning. One of the major conclusions is that a blended learning environment offers Saudi females the flexibility to continue their higher education while maintaining their own cultural values and traditions.

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*In the Name of Allah, the Most Beneficent, the Most Merciful*

*“Praise be to Allah, to Whom belong all things in the heavens and on earth: to Him be Praise in the Hereafter: and He is Full of Wisdom, acquainted with all things” (36:1, Holy Quran).*

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## Acronyms

ADSL	Asymmetric Digital Subscriber Line
CAI	Computer Assisted Instruction
CASCS	College of Applied Studies and Community Services
EFL	English as a Foreign Language
F2F	fact-to-face
ICDL	Information and Communication Driving Licence
ICT	Information Communication Technology
IPR	Intellectual Property Rights
IT	Information Technology
JISC	Joint Information Systems Committee
JUST	Jordan University of Science and Technology
KAU	King Abdulaziz University
KAUST	King Abdullah University of Science and Technology
KFUPM	King Fahad University of Petroleum and Minerals
KKU	King Khalid University
KSU	King Saud University
LMS	Learning Management System
NAFSA	National Association of Foreign Student Advisors
RCCI	Riyadh Chamber of Commerce and Industry
RIT	Rochester Institute of Technology
ZU	Zayed University

## **CHAPTER I: Introduction**

There is a global movement in Universities to offer learning environments that meet the needs of the twenty-first century. Universities have realized the importance of blending face-to-face with online instruction when developing new educational processes. The rapid developments in Saudi Higher Education have led Universities to move with this international trend. Being a consultant with the National Centre of E-learning and Distance Learning at Riyadh, I had the opportunity to recognize the rapid movement towards providing e-learning within Higher Education, and particularly blended learning. In addition, my teaching background in the combined areas of Computer Science and Education at King Saud University inspired me to investigate and understand the impact of blended learning on the quality of the teaching and learning experience in the Saudi context. According to Garrison and Vaughan (2008), “blended learning addresses the issue of quality of teaching and learning” (p. 153). Therefore, I conducted this study to explore the perceptions of Saudi lecturers and undergraduate students towards blended learning during their experience as participants in blended courses. In the following sections an overview of the research, its significance, the purpose of the research and the research questions are discussed.

### **1.1 Overview of Blended Learning**

The evolution of learning processes in education has relied on incorporating new instructional strategies to improve pedagogy and increase flexibility. Several studies



have been conducted to explore learning strategies that exploit the potential of online instruction, while retaining the advantages of face-to-face instruction from which the concept of *Blended Learning* has emerged. Rooney (2003) declared that blended learning has been identified by the American Society for Training and Development as one of the top ten trends to emerge in the knowledge delivery industry.

Various blended learning models are used among institutions and universities. A common definition of blended learning refers to the integration of online activities and traditional face-to-face class activities. At the University of Wisconsin in Milwaukee, courses are considered blended when portions of learning activities have been moved online, and time traditionally spent in the classroom is reduced but not eliminated. Supporting this view, the participants of the 2005 Sloan-C Workshop on Blended Learning adopted a definition of blended learning, in which a portion of face-to-face time is replaced by online activities in a planned, pedagogically valuable manner (Laster, Otte, Picciano, & Sorg, 2005; Picciano, 2006). According to the Blended Learning Pilot Program (2003-04) provided by the Online Learning Department at the Rochester Institute of Technology (RIT) in the United States, a blended course is defined as any course in which 25% to 50% of classroom lectures and other face-to-face activities are replaced by instructor-guided online activities, such as online quizzes, virtual team projects, synchronous chat sessions, and asynchronous discussions (RIT, 2004). Other definitions beyond the scope of this study are introduced in the literature review.

Internationally, during the last few years there has been a considerable increase in converting traditional courses and online courses into blended courses. For example, a

review of blended learning within UK Higher Education institutions (Sharpe, Benfield, Roberts & Francis, 2006) points out that blended learning is increasing in the UK and is predicted to increase further in review of practices in North America (Bonk, Kim & Zeng, 2006) and Australia (Eklund, Kay & Lynch, 2003). A survey of e-learning activity found that 80% of US Higher Education institutions offer blended learning courses (Arabasz, Boggs & Baker, 2003). Lecturers are using blended courses to take advantage of the best pedagogical techniques of online and face-to-face learning (Godambe, Picciano, Schroeder & Schweber, 2004) utilizing different learning instructions and modes of delivery. Therefore, the literature shows that various academic practices have been used to explore blended learning in Higher Education, its effectiveness and challenges. Essentially, blended learning should not be applied before exploring the stakeholders' perceptions and opinions, i.e. those of the administrators, lecturers and students. Bonk and Graham (2006) assert that the promises of blended learning are extensive and that further research and innovation in the blended learning arena will help to identify the key contributions, benefits, and impact areas.

## **1.2 Innovations in Saudi Higher Education**

The Higher Education Ministry of Saudi Arabia has encouraged the use of Information Communication Technology (ICT) for teaching and learning among its lecturers and students. Projects are continuously being developed to provide adequate ICT infrastructure as well as content development for Higher Education students. For the development of education systems in Saudi Arabia, the Higher Education Ministry has established the National Plan for Information Technology, which encourages e-learning and distance learning in Higher Education. In 2006, the National Plan for Information Technology established a centre called the National Centre for E-learning and Distance

Learning, which provides technical support, tools, and the means necessary for the development of digital educational content in Higher Education throughout the country, and is a vehicle by which all university sectors can become standardized. Due to the huge population explosion and the scarcity of qualified lecturers, the National Centre for E-learning has started several projects that aim to enhance e-learning in Saudi universities. The Centre strives to provide rich multimedia resources to enable lecturers to integrate blended learning that fits their course and university needs.

Furthermore, blended learning was approved in October 2007 by King Saud University in Riyadh for the College of Applied Studies and Community Services (CASCS). The decision to implement blended learning was to meet the increasing number of female students applying for college education. This research is conducted in that context in order to explore the experiences of the first implementation of blended courses in Saudi Higher Education. Recently, two other government Universities have started to encourage the implementation of such courses: King Fahad University of Petroleum and Minerals and King Khalid University.

### **1.3 Significance of the Research**

This study is a contribution to the planned learning strategy in Saudi Arabia as it is the first study to explore the perceptions of female lecturers and undergraduate students towards blended learning, their opinions of the future of blended learning and critical factors that affect their views. Essentially, new educational technologies should not be implemented without fully understanding their impact on the learning process. I believe that close examination of the issues that enhance or challenge the instructors' experience as well as student motivation and engagement will ensure a more efficient

transition. The study contributes to the knowledge of blended learning theoretically and practically. A theoretical framework derived from the study, provides guidance for the implementation of blended learning. Practically, the study puts forward recommendations for addressing the challenges of blended learning.

The implementation of blended learning in Saudi Higher Education is in its very early stages. Blended learning is being implemented to address one of the major challenges encountered in Saudi Higher Education which is to provide college education to the rapidly growing student population in this country. With the limited capacity of universities, the Ministry of Higher Education realized the need for integrating web-based instruction with traditional instruction to tackle this problem. Several projects are seriously being considered to facilitate this strategy both effectively and efficiently.

Several projects in Western and Asian countries (Garnham & Kaleta, 2002; Owston, Garrison & Cook, 2006; Garrison & Vaughan, 2008) have delivered blended instruction successfully in Higher Education, but whether or not such strategies could be successfully adapted to Saudi undergraduate students is as yet unknown. It is hoped that this study will help to provide an insight for the decision-makers throughout Higher Education in Saudi Arabia. This study is significant because it is, to the best of my knowledge, the first one to explore the perception of Saudi female lecturers and undergraduate students, as participants in blended courses, towards blended learning and it also identifies the critical factors that affect their views in this matter. In addition, the exploratory methodology used in this study is unique as there are no known exploratory studies in the field of education in Saudi Arabia. The research trend is still in favour of confirmatory studies and quantitative methods. Furthermore, as the move to

a blended learning model represents a radical shift in the educational system in Saudi Arabia, this study has the potential to understand how Saudi students and lecturers have reacted to this change and how it has affected the quality of their learning and teaching experience. Although this study is conducted with female participants, many of the assumptions and recommendations would be also of great value for implementing blended learning for male students in the gender-segregated Saudi Universities.

#### **1.4 Purpose of the Research**

The main purpose of this study is to understand how Saudi female lecturers and undergraduate students experience and perceive blended learning and its future in Saudi Arabia. At the female campus of King Saud University in Riyadh, the participants shared their views of the first implementation of blended courses, with a reduction in face-to-face instruction, at an institutional level.

In addition, the study aims to identify critical factors affecting the participants' views of the blended learning environment to enhance the educational process. These factors are to be identified through exploring the experience of the students and lecturers and their opinions of the advantages of blended learning and the challenges they encounter. Identifying the issues that shape the experience of teaching and learning in a blended environment will provide an insight into how students and lecturers should be supported in this new learning environment.

#### **1.5 Research Questions**

The main research questions underpinning this study are:

1. How do Saudi undergraduate students perceive blended learning?

- a. How do the students understand blended learning?
  - b. What are the advantages of blended learning for students?
  - c. What challenges do students of blended courses encounter?
2. How do Saudi lecturers perceive blended learning?
    - a. How do the lecturers understand blended learning?
    - b. What are the advantages of blended learning for students and lecturers?
    - c. What challenges do lecturers of blended courses encounter?
  3. What are the participants' perceptions of the future of blended learning in Saudi Arabia?

## **1.6 Structure of the Thesis**

This thesis is composed of seven chapters with the following structure:

Chapter One presents a background of the study, the purpose of the study, the research questions, and the significance of the study.

Chapter Two provides a review of the context of the study, including the culture and the use of the Internet in Higher Education.

Chapter Three provides a literature review on the following concepts: blended learning; design; pedagogies; the rational; and the institution's role in implementing blended learning. Also some ethical issues related to blended learning as well as the future of blended learning are reviewed.

Chapter Four describes the theoretical framework, the methodological approach, the sampling approach, the data analysis procedure, and the ethical consideration.

Chapter Five presents analyses of the research findings.

Chapter Six presents discussions and interpretations of the themes that emerged from the data analysis. It also presents a theoretical contribution of a suggested blended learning framework for implementing this approach to learning.

Chapter Seven discusses the implications and recommendations for implementing blended learning in Saudi Higher Education, and suggests areas for future research. It also presents the challenges and limitations as well as my personal reflection on the thesis journey.

## **CHAPTER II: Context of the Study**

*“There is a strong link between culture and learning that is reflected in how people prefer to learn and how they tend to process information” (Samovar, Porter & McDaniel, 2009, p. 338).*

This chapter discusses Saudi Arabia’s Higher Education System including the development of universities, the status of university students and lecturers and the innovations in Higher Education. In addition, the impact of Saudi culture and, specifically, the advantages of online learning to female university students are discussed.

### **2.1 The Country and People of Saudi Arabia**

Saudi Arabia occupies most of the Arabian Peninsula, with the Red Sea and the Gulf of Aqaba to the west and the Persian Gulf to the east. The official name of the country is Kingdom of Saudi Arabia; it is a monarchy headed by King Abdullah bin Abdulaziz, Custodian of the Two Holy Mosques. The system of government is based on *Shura* (consultation). The *AlShura* council in the Kingdom of Saudi Arabia has similar functions to those of the Western parliament. The country includes 13 administrative regions (Emirates), and each Emirate includes a number of governorates. Riyadh City is the capital of Saudi Arabia. The area of Saudi Arabia is about 2,250,000 square kilometres (868,730 square miles) with a population of 22,673,538 (2005 census).

Since King Abdulaziz Al-Saud established the Kingdom of Saudi Arabia in 1932, its development has been astonishing. In 1938, Saudi Arabia became a major oil producer,



which has enabled it to turn from an undeveloped nomadic nation to a modern country within a very short time. Saudi Arabia is the homeland of Islam and the location of the two holy cities Makkah and Medina. The official language is Arabic, although English is also widely spoken and understood.

Saudi Arabia culture is strongly influenced by being the birthplace of Islam. The segregation of the sexes required by Saudi cultures and societal norms influences all aspects of life, including education. The educational environment is gender-segregated in accordance with local Islamic law; the classes for each gender are in separate buildings. Direct interaction between females and males, who are not close relatives, is not permitted except on rare occasions. Female campuses are run by female staff and taught by female lecturers or by male lecturers via closed-circuit TV. Due to cultural and social regulations in Saudi Arabia, females do not drive but instead are provided with transportation to schools by male relatives or drivers. Undergraduate female students are not allowed to leave university campuses before noon without their family's permission and are not allowed to be on-campus after normal operating hours (8a.m. – 4p.m.). Segregation and female status has been specifically discussed in this section because cultural aspects can influence the acceptance of blended learning, which was initially introduced to females only.

## **2.2 Saudi Higher Education**

Higher Education became a focus of human development strategies by the government when the country was in a period of rapid development in the early 1970s. The Educational Policy charter was launched in 1970 for Higher Education and public education. The policy states that the purpose of education in general is to satisfy the needs of the society and reflect its cultural norms and ways of living. The purposes and goals of education in any country represent the cultural values and beliefs of its citizens.

The main educational purpose of the Saudi education system is a continuation of its Islamic educational heritage. These policies have not changed since 1970. The following is a translation of the objectives of Saudi Higher Education as stated in the Educational Policy charter:

1 – To develop the doctrine of loyalty to God, by endeavouring to provide the student with Islamic culture to be able to recognize her/his responsibilities before God for the Nation of Islam; to have valuable scientific and practical abilities.

2 – To prepare highly-qualified citizens scientifically and intellectually able to perform their duty in the service of their country and the advancement of their nation, in the light of the right doctrine and principles of Islam.

3- To provide an opportunity for talented students in postgraduate studies of science disciplines.

4- To play a positive role in the field of scientific research, which contributes to the field of global progress in arts, science and inventions, and to find the right solutions appropriate to the requirements of life and the technological trends.

5- To promote the movement of authorship and scientific production, adapting sciences that serve the Islamic idea, and show leadership in building a civilization on valued principles, which leads humanity to righteousness and enlightenment, and avoid distortions of physical and atheistic beliefs.

6- To translate knowledge of science and useful arts to the language of the Quran [Arabic], and the development of the wealth of the Arabic language (terminology), to meet the needs of Arabization, and make knowledge accessible to the largest number of citizens.

7- To implement training services and innovative studies to post-graduates who are in employment in order to introduce innovations to them.

A study that was conducted to evaluate the policy statements by Al-Mengash (2006) indicates that not all of the statements were applied and gives recommendations for developing some statements of the policy. For example, Al-Mengash highlights statement (41) of the goal and objectives of education, which is the encouragement of scientific thinking and research. She asserts that this statement is not effectively applied in the education system, as teaching today is still based on memorizing with no encouragement to think, be creative or discuss with lecturers and peers.

The oldest university in Saudi Arabia was founded in 1957 as Riyadh University and renamed King Saud University in 1982. When it first opened in 1957, just nine lecturers taught 21 students. In the academic year 2007-2008, the University had 42,312 students. There were only two public universities located in Riyadh, the capital of Saudi Arabia: King Saud University (KSU) and Al-Imam Muhammad Ibn Saud Islamic University until 2004 when the first female University was established by combining female colleges. Most universities accept both males and females but the University of Petroleum and Minerals in Dhahran and the Islamic University in Al-Madinah admit males only and Princess Noura bint Abdulrahman University in Riyadh only admits females .

In 1975, the Ministry of Higher Education in Saudi Arabia was founded to supervise Higher Education in the country. The Ministry launched a long-term plan with vast resources to provide the highly-skilled manpower needed to run the nation's increasingly sophisticated economy. The plan's objectives were to establish:

- new institutions of Higher Education throughout the country and expand existing ones;

- undergraduate and postgraduate programs in most disciplines at these universities and colleges.

Saudi universities and institutions offer Diplomas, Bachelors, Masters and PhD degrees in various scientific and humanities specializations. (Saudi Arabia Credentials or Documentations from the National Association of Foreign Student Advisors (NAFSA) of year 2009 are presented in Appendix A). A Bachelor degree requires four years in the field of humanities and social sciences and five to six years in the fields of medicine, engineering and pharmacy. English is used as the medium of instruction in technological and science fields, while all other subjects are taught in Arabic.

Since 2004, Saudi universities have increased from eight public universities to 21 universities (Ministry of Higher Education, 2008). Most of these new universities were pre-established colleges that were converted into universities. Moreover, a large number of vocational institutes, and a growing number of private colleges have been established recently, such as the Arabic Open University and Prince Sultan University. In 2003, Alkhazim reported that lack of funds was one of the three major challenges and difficulties facing the Saudi Higher Education system, namely: “difficulties in meeting rising demand to admit more students, difficulties in meeting outcome quality in relation to work force needs, and difficulties in securing more resources” (p. 483). However, considerable attention, along with a massive budget, has been given to Higher Education and research during King Abdullah’s monarchy since 2005. Twelve years ago, the Minister of Saudi Higher Education emphasized the continuous support for and interest in Higher Education in Saudi Arabia (Al-Ankary, 1998) as he stated:

*The budget of Higher Education increased from 55 million Saudi riyals (15 million US dollars) in 1965 to about 6 billion Saudi riyals (equal to 1.6 billion US dollars) in 1995. This represents that a higher education budget that doubled more than one hundred times during the years under*

*discussion. The continuous support and interest in higher education are shown through the establishment of several university campuses complete with a high standard of educational facilities, infrastructure, laboratories, support complexes and vital services (p. 4)*

Saudi Arabia's budget for 2010 places a high priority on education, spending \$36.7 billion on education and training out of a more than \$146 billion total budget. This shows that more than a quarter of the total budget is designated for education with a 13% increase over the budget of 2009 (Saudi Embassy-Washington, 2009). The Higher Education budget of 2010 covers funding for establishing new government universities and the expansion of existing ones and increasing student enrolments in Higher Education and scholarship programs abroad. Currently, there are approximately 80,000 Saudi students with government scholarships studying at Higher Education Universities around the world.

Recently, King Abdullah has supported the establishment of the international, graduate-level research University in the West Province, King Abdullah University of Science and Technology (KAUST), which aims to be one of the world's leading research institutions. KAUST has received a \$10 billion grant from King Abdullah, making it the sixth wealthiest university in the world, even before it was opened in 2009, as noted by the Chronicle of Higher Education (2008).

Furthermore, the construction of the world's largest University for female students only is set to be ready in 2010, as well as a new Health University which is under construction. Figure 2.1 shows the locations of the 8 universities in 2004 and Figure 2.2 shows the locations of the 21 universities that were established between 2004 and 2009.



Figure 2.1: Distribution of the 8 Universities in Saudi Arabia before 2004  
 (Source of the original map is <http://www.riyadh.gov.sa>)



Figure 2.2: Distribution of the 21 Universities in Saudi Arabia (2004- 2009)

In 2005, the project 'Future Plan for University Education in the Kingdom of Saudi Arabia', called AAFAQ, and the Future of University Education (2006-2030), was developed as a contribution towards planning and developing the Saudi Higher Education. AAFAQ is an Arabic term that means *Horizons*, which reflects this futuristic plan. The main objective was to address the challenges that face the development of Saudi Higher Education and to propose a future plan for the next 25 years:

*The main objective of the AAFAQ project is to promote the efficiency and effectiveness of the Higher Education system in Saudi Arabia, through the preparation of an ambitious, futuristic, practical, and long-term plan that identifies vision, value, standards for performance measurement, and resource requirements. It additionally aims to improve adequate utilization of human and financial resources; and encouraging universities to allocate more resources for R&D [Research & Development] and community service. The project is geared to produce a detailed implementation plan for Higher Education for the first 5 years and proposes a mechanism for institutions of Higher Education for continued strategic planning and implementation of strategic and operational plans.*

Various aspects of Higher Education were considered in this project, such as private Higher Education, Higher Education for females, health education, and technical education.

Saudi Arabia has recently increased its emphasis on encouraging Higher Education for females. The first college for females was launched in 1970 to provide female public schools with qualified teachers. These colleges were converted into a public university and renamed Princess Nora bint Abdulrahman University in 2008. A new campus for Princess Nora University, with a capacity to enrol about 40,000 students, is set to be completed in Riyadh in 2010. The university has 13 colleges, 11 of which provide new majors, including medicine, dentistry, nursing, naturopathy, business and management, information technology and languages. Due to the influence of Saudi culture, the most

commonly available jobs for females are in education and health; therefore, the university majors offered are focused on serving these employment opportunities.

Alsaleh (2008) stated that 83.4% of female workers in the government sectors are in education, thereby concluding that the Education Ministry and the Higher Education Ministry are the largest sectors offering jobs for females in Saudi Arabia. He added that the Health Ministry offers 5.4% of its jobs to females. However, there is now a trend to offer a variety of majors that have not been traditionally offered in the past (Abalhassan, 2007). It is notable that more jobs for females in private sectors have been available, for example in banking, accounting and IT. Recently, a Bachelor's Degree in Law has been offered for females, but there are no engineering and architecture degrees available for females yet.

One of the main goals of restructuring Universities is to provide a balance between human studies and technology and sciences in order to solve the problem of excessive numbers of graduates of human sciences, specifically among females (Alsaleh, 2008). Supporting this view, a study by Riyadh Chamber of Commerce and Industry (RCCI) highlighted the lack of qualified Saudis to work in private companies specialized in science and technology, and found that “graduates of engineering, medicine and sciences met only 12.5 % of the Kingdom needs in the last five year plan” (Gangal, 2009, para. 9).

Recently, a movement towards transforming Saudi society into a knowledge society was emphasized in the Minister of Higher Education's speech during the first Higher Education student symposium, held in March 2010 (Ministry of Higher Education Portal, 2010):



*The premises of Higher Education development adopted by the Ministry are based on specified fundamentals, most important of them is supporting Saudi society be transformed into a knowledge society. One of the most important means to achieve this transformation is to develop and employ a view of knowledge economy where knowledge is produced, disseminated and ultimately consumed at various community products and service works. Toward this there was collaboration with universities to build real and realistic partnerships with production and services sector, both governmental and private whether local or international. Such move is justified in a view of a university or educational institution role as a manifestation of a balance stroked between producing knowledge and utilization of this produced knowledge, education output that is fit for national development needs and those needs of labour market. Such balancing highlights the real role and the positive reflection of universities and Higher Education organizations at serving their communities, not forgetting too their pioneering role at educating and conducting research. (para. 7)*

### ***University Students***

Saudi public universities provide free education and financial support for undergraduate and graduate students. At the level of Higher Education, the government grants monthly allowances of around £160 per month for all university students. Despite university education being provided free of charge to Saudi citizens, not all high school graduates are offered admission to universities and other Higher Education institutions. In 2007, 91% of high school graduates were admitted to universities (Algamdi, 2007). However, due to the increasing number of high school graduates in 2008, only 86% could be offered places (Alshammri, 2008). Although the same subjects are not always offered to both males and females, 50% of male Saudi students and 60% of female Saudi students go to college after high school. This shows that people in Saudi Arabia perceive a University degree as the accepted education norm.

With regard to high school, there was no secondary-level education in Saudi Arabia prior to 1937. Secondary education is a three-year program; in the first year all students follow a general curriculum before specializing in either humanities or science for the next two years. In public (government) and private schools all textbooks of the unified

curriculum are supplied by the government; their content is determined by Committees in the Ministry of Education. In public schools education is free and all subjects are taught in Arabic. Private schools must use the basic government-approved curriculum; they cannot subtract from it, but can add to it if they wish. The two main additional subjects offered by private schools are English and Computer studies. Computer literacy started to be formally taught in Saudi public schools in 2000 (Doheash and Aloreani, 2001), while it was introduced in private schools in 1995 (Abu-Hassanah & Woodcock, 2006). Abu-Hassanah and Woodcock indicate that in 2005 the Ministry of Education formally approved computer literacy to be taught at all public school levels, but this has not yet been implemented. Currently, grades 10-12 have two computer classes a week. However this has not been applied to all rural areas. Abu-Hassanah and Woodcock (2006) clarify this by saying:

*There is a large divergence between private and public schools in terms of ICT usage as a teaching tool, the usage of internet, content of computer curriculum, age at which they start to teach computers, underlying pedagogies, and computer teachers' qualification. This divergence is one that needs to be corrected through standardisation and quality control if all students are to receive a good grounding in IT. There are indications that the Saudi authorities will look at the unification of computer curriculum between private and public schools and try to catch up with the more advanced countries in the use of ICT in education. (p. 6)*

The general high school curriculum has often been changed in order to meet the needs of individuals and the country.

Furthermore, a crucial point to make here is that students are not offered the opportunity of self-directed learning in public schools. Local studies reveal that Saudi teachers at all levels in public schools do not use self-directed learning in their classrooms, which has a negative impact on students' progress and study skills (Al-Saadat, 2006). As Al-Saadat argues, teachers who use traditional methods do not provide sufficient guidance

and feedback to their students. He calls for applying self-learning in the education system in Saudi Arabia. However, obstacles, such as not realizing the importance of self learning and not understanding its principles prevent its application. In addition, poor training, lack of tools and adequate programs and school libraries, large numbers of students per class and inflexible curriculums with strict timeline also influence the lack of self-directed learning in public schools (Nashwan & Al-Katheeri, 1987).

All University students were admitted according to their grades in tests prepared by the National Centre for Assessment in Higher Education. The Centre endeavours to establish fairness and equality in the Higher Educational system of Saudi Arabia and improve the efficiency of learning. Most Universities have started to offer online admission services. Furthermore, central online admission to public Universities in Riyadh was provided for female students recently. The goal was to unify the admission processes and provide online services for admissions, offer more spaces for applicants by decreasing the processes of several applications per applicant in more than one university and providing similar chances for all applicants.

All university majors provide introductory computer courses to their students as required courses. The Education College in King Saud University, where this study was conducted, provides *Use of Computer in Teaching* as a required course for undergraduate students seeking a Bachelor degree. Furthermore, the Information and Communication Driving Licence (ICDL) program has been already implemented in the Preparatory year in King Saud University, Princess Nora bint Abdulrahman University, and University of Tabuk. This program is offered to provide students with basic computer and internet skills to enhance learning.

### ***University Lecturers***

The requirement to teach in a Saudi University is to hold a Bachelor, Master or a PhD degree. In this study, the word *lecturer* is used to refer to all teaching members at universities. The lecturer (faculty) handbook of King Fahad University of Petroleum and Minerals (2009) clarifies the minimum standards for contracting a lecturer position at the University:

*The minimum standards for contracting in professorial ranks are a doctoral degree from a recognized university, promotion to the rank from a recognized university, and meeting the University teaching and/or research needs as well as services requirements. The minimum requirements for contracting in Lecturer and Instructor ranks are a Master's degree or above from a recognized university and meeting the University teaching and/or research needs as well as services requirements. In addition, eligibility to be employed on a Research Assistant rank is controlled by ensuring that the applicant holds a Baccalaureate degree from a recognized university and meets the University teaching and/or research needs as well as services requirements. (p. 3)*

In Saudi universities, lecturers usually teach undergraduate courses according to their qualifications. For example, a holder of a Bachelor's degree can teach introductory courses or be an assistant tutor, whereas a holder of a Master's degree can teach undergraduate courses only, while PhD holders can teach any Higher Education course, including graduate studies. There is no requirement to have teaching training, although it is preferred. The percentage of the Saudi lecturers in the universities is high, with only a few non-Saudi nationalities. For example, in King Saud University, the number of lecturers is 4952, which includes 3496 Saudi nationals. The majority of the Saudi staff obtained their first degree in Saudi Arabia and their postgraduate degrees at home or abroad.

Until now, university lecturers have been teaching using the traditional approach. The didactic, lecture-based classroom has been the standard pedagogical approach in Saudi

universities. It is observed that there is a lack of independent learning and creativity in Saudi education. Al-Saadat (2003) investigated the extent of self-directed learning in university teaching as perceived by female students at King Saud University and concluded that there is a lack of applying self-directed learning. He indicated that teachers do not give much consideration to self directed learning, and they do not allow students to evaluate themselves.

However, with the rapid development in Higher Education, a movement towards innovations in teaching strategies has started. For example, a number of seminars and workshops have been offered for lecturers about active learning strategies. Universities such as King Saud University have been provided professional development in e-learning and other teaching and researching skills for lecturers.

### **2.3 The Internet in Higher Education**

Internet access has been available to the public in Saudi Arabia since 1999. According to the Communications and Information Technology Commission (2007), in December 2000 there were approximately 200,000 Internet users in Saudi Arabia and by 2005, this number had grown to 2.54 million, making the growth 1,170%. Importantly, the number of Internet users jumped to 6.4 million in 2007, which is nearly one third of the Saudi population, that is about 24 million (see Figure 2.3). One reason for the growth is that approximately 60% of the Saudi population is comprised of young people who are 20 years old or younger (ArRiyadh Development Authority, 2007), and they are adapting to new technologies faster than expected. It is estimated that Internet use will continue growing rapidly in Saudi Arabia, thereby raising the issue of providing new learning strategies that include use of technology.

Moreover, Asymmetric Digital Subscriber Line (ADSL) connection has recently become available to homes and businesses in major metropolitan areas in Saudi Arabia, including all universities. This technology, which allows existing telephone lines to be used simultaneously for voice communication and as high-speed Internet access paths, is not yet available in all residential areas and will, therefore, affect tools selection for delivery of instruction in the short-term.

Due to the limitation in the bandwidth in the country, asynchronous virtual learning is used. Supporting this view, the manager of Al-Dawalij company (Saudi Educational Software Producing Company) said that his company had stopped producing online educational materials for schools because of the network connection problems that prevented schools from accessing the material. Thus, their product range is only available on CD-ROMs and DVDs (Abu-Hassana & Woodcock, 2006).

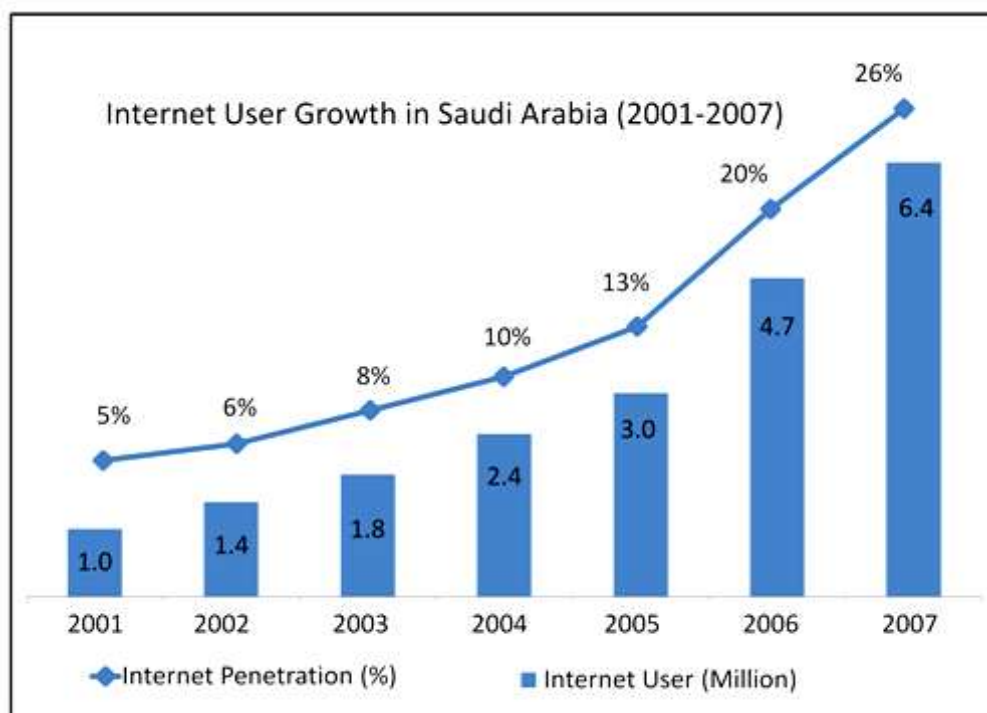


Figure 2.3: Internet Users in Saudi Arabia (Source: <http://www.citc.gov.sa>)

The Ministry of Higher Education has encouraged the use of Information and Communication Technology (ICT) in education by providing development projects to establish adequate IT infrastructures, as well as content development for Higher Education students. In recent years, some universities and institutions have provided commercial Learning Management Systems, such as Blackboard, WebCT, and Tadarus (an Arabic-language Learning Management System) to facilitate learning and teaching online. However, the number of lecturers who utilize these systems is very limited. A likely reason for this could be that the universities and institutions do not provide sufficient training workshops for online learning systems. A few lecturers, who are personally interested in e-learning and have adequate skills, provide online materials as supplementary resources for their courses. A few years ago, two universities, King Fahd University of Petroleum and Minerals (KFUPM) and King Abdulaziz University (KAU), established e-learning centres that provide assistance to their lecturers to develop interactive web-based supplementary materials for traditional courses. The KAU, located in Jeddah, was the first and only Saudi university that employed a virtual learning environment by offering Bachelor degrees through online learning. In August 2007, the Islamic University of Al-Imam Muhammad Ibn Saud began offering a distance learning program that delivers instruction entirely through the Internet. Only a few Universities have begun implementing distance learning program and have recently undertaken e-learning as part of their distance learning programs.

Saudi King Abdullah has called for a national plan for the utilization of information technology in Higher Education. To assist the development of education systems in Saudi Arabia, the Ministry of Higher Education has established the National Plan for Information Technology which encourages e-learning and distance learning in Higher Education. In 2006, the National Centre for E-learning and Distance Learning was

established to support e-learning and blended learning implementation in Universities. The centre provides technical support, tools, and the means necessary for the development of digital educational content in Higher Education throughout the country, and is a vehicle by which all university sectors can become standardized. Due to the huge population explosion and the low number of qualified lecturers, the National Centre for E-learning and Distance Learning has started several projects that aim to enhance e-learning in Saudi universities. The principal goals of the centre (National Centre for E-learning, 2008) are:

- To work across all Higher Education institutions to develop an e-learning infrastructure, both nationally and internationally.
- To collaborate with Higher Education, government and corporate partners to solve complex e-learning problems.
- To provide complete e-learning solutions to at least 3 strategic partners by end of 2010.
- To develop at least 3 new e-learning programs by 2009.
- To establish alliance with at least 2 major international e-learning bodies to share e-learning resources.
- To develop rules and regulations governing e-learning programs in Saudi Arabia by 2008.
- To establish awareness of e-learning programs by the end of 2007.
- To develop infrastructures for the centre.

Nine universities have already agreed to implement the system of e-learning. King Saud University, King Abdul Aziz University, Baha University, Taiba University, Qassim University and Madinah Islamic University all have Memoranda of Understanding with



the Ministry to introduce the e-learning scheme (National Centre for E-learning, 2008). The Director of the National Centre for E-learning said that, under the agreements, his centre would provide technical and consultative support to universities to use e-learning, facilitate the transition to this type of education and set out the basic rules for its application. The National Centre for E-learning has established a training program for academics in the universities who have agreed to adopt e-learning. The Centre has also started to create a digital repository, called *Maknaz*, which will contain various educational contents, such as *Learning Objects* that can be uploaded, modified by lecturers and retrieved by students. Barker (2006) points out that Learning Objects:

*may range from simple text or audio pieces, video and interactive applications, assessment objects and tasks, through to large group assignments and exercises. They are slotted together to produce learning systems. It is often claimed that they are, or at least should be, reusable and suitable for delivery in more than one module. (p. 41)*

The Director of the Centre stated that E-books for engineering, medical, computer science and humanities courses will be made available first. This project was launched in April 2009, but it is impossible to predict whether or how lecturers will use these resources.

The Learning Management System *Jusur* was created in 2007 especially for the National Centre for E-learning to provide the learning management features in Arabic for Saudi institutions. *Jusur* is a user-friendly system and has been developed and upgraded to a second version within one year of its innovation. In the main website of *Jusur*, there are printed manuals specifically for students and others for lecturers. Moreover, the system provides an online help desk service that allows users to send their queries, using an *online ticket*, to the technical support staff and receive a reply to their accounts.

## **2.4 Blended Learning in Saudi Arabia**

The use of blended learning in Arab countries has emerged with the Arab Open University. The foundation of the Arab Open University, which is a private Arab institution, came as a personal initiative by the Saudi Prince Talal Bin Abdulaziz, President of the Arab Gulf Programme for United Nations Development Organizations. The idea of the Arab Open University was announced in the International Symposium in Riyadh 1997 and opened in Kuwait, which is the Headquarter for the University. Later, five branches were established in Arab countries: Bahrain, Egypt, Lebanon, Jordan, Oman and Saudi Arabia.

The Arab Open University offers a concept of Open Learning, that “denotes that doors for education are wide open for each and every individual and student, regardless of their gender, age, date of the award of the certificate.” Adopting the Open Learning concept by the Arab Open University shows that the students of the Arabic Open University are different in their background to students of Saudi public Universities. According to public University regulations, prospective students can apply for admission within five years of completing high school. Consequently, the experiences and the perspectives of the students of these two distinct environments towards blended learning are expected to be different. This study focuses on the implementation of blended learning in Saudi Higher Education. Therefore, the perspectives of the students in King Saud University, a public University, are explored.

As stated in the previous section, one of the goals of the E-learning Project in the Ministry of Higher Education is to adopt blended learning in universities. The Director of the National Centre of E-Learning and Distance Learning announced that the Ministry was investigating the prospect of reducing class attendance hours for

university students after shifting to e-learning (National Centre for E-learning, 2008). The Director of the Centre stated that with the new learning system [blended learning] students need not have 100 percent class attendance as modern technologies will facilitate communication with lecturers. This indicates that the Ministry of Higher Education understands blended learning as a combination of face-to-face instruction with online instruction in order to reduce seat time. This concept of blended learning has been adopted by several institutions around the world, such as the University of Phoenix, the University of Central Florida, the University of Wisconsin-Milwaukee, the University of Calgary, the University of Wollongong, Bournemouth University and Glamorgan University. Furthermore, the First International Conference of E-Learning and Distance Learning in Saudi Arabia, Riyadh in 2009 issued a set of recommendations that reveals the movement towards blended learning in Higher Education.

The first and only implementation of blended learning was approved in October 2007 by King Saud University in Riyadh at the College of Applied Studies and Community Services (CASCS). The College of Applied Sciences and Community Service, in collaboration with other academic and administrative departments in King Saud University, provides varied services, such as the Transitory Program, which offers blended courses. The Transitory program aims to provide female students with an opportunity to improve their GPA up to a point where they can continue their university education. The courses they study at the College are accredited by the relevant department in the university. Students who do not meet the university requirements can join a diploma program in the CASCS with a possibility of accrediting the courses they study successfully.

Blended learning was offered in CASCS to address the rapid growth of student applicants. Five introductory courses were offered as blended courses: two Islamic studies courses (101 IS and 102 IS), two Arabic language courses (101 AL and 103 AL), and one introductory English course (101 ENG). Each of these courses had a number of groups offered in two campuses. The blended design was (a) online instruction replacing 70% of the face-to-face class time and (b) 30% face-to-face class time. Five elements of the online instruction included announcements, assignments submission, online quizzes, lecture notes and online discussions.

Online instruction will greatly expand the resources and interaction opportunities for female students. The National Centre for E-learning strives to provide rich multimedia resources to enable lecturers to integrate e-learning and blended learning in a way that fits their course and the university's needs. It is expected that more colleges will offer blended courses in the near future. Blended learning offers flexibility for female students who have a greater emphasis on family duties as well as to employers (males and females), because they would not have to attend weekly face-to-face classes. Online learning would allow for increased interaction between female students and lecturers, even if they are male, whereas face-to-face interaction is not permissible. Therefore, blended learning would allow more interaction between lecturers and students, which would lead to more effective learning processes.

Furthermore, the rapid development in adopting blended learning in Saudi Higher Education has been identified in King Khalid University in the Southern Province of Saudi Arabia. In 2009, King Khalid University has enabled three types of e-courses: supplementary level, blended level, and entirely online level. King Khalid University, located in the south province of Saudi Arabia, has recently adopted a Five-Year

Strategic Plan for enhancing the quality of education. The plan includes an e-learning project which aims to make 10% of the overall curriculum (2% per year), electronically available in the blended mode.

Globally, a Certificate in Blended Teaching and Learning is awarded by Sloan Consortium (Sloan-C), an organization in the United States dedicated to integrating online education into the mainstream of Higher Education, upon successful completion of a development program in blended teaching and learning. The program includes a three-part workshop in which participants have the opportunity to learn about blended teaching approaches, as well as how to design and develop blended course content. The National Centre for E-learning and Distance Learning offered part of this certificate as a workshop of Lecturer Development for Blended Teaching and Learning at the E-Learning International Conference 2009 in Riyadh. However, workshops for lecturer development skills are still at an early stage in Saudi Arabia. The total number of university lecturers who participated in the workshops up to May 2010 was only 410 participants, according to the National Centre for E-learning.

## **2.5 Summary**

Saudi Arabia is a country that strives to respond to the technological evolution in education. It has only been fifty years since the first University was established with only twenty one students. Today there are twenty one public universities and a number of private universities established throughout the country. The Islamic culture remains a strong influence on all aspects of life including education. Significantly, female education is being given a high priority. Nowadays, the trend in Higher Education is to integrate face-to-face learning with online learning.

## CHAPTER III: Literature Review

*“Time was when understanding the past was a pretty good ticket to future success. But in the light of today’s crises, the voice of experience is only half the picture. The ability to steer a course into a perceived future is the other” (Prensky, 2008, p.41).*

This chapter provides a literature review about the term *perception*, the concept and rationale for blended learning. Furthermore, the role of institutions, design and pedagogies of blended learning are addressed. Finally, ethical issues and the future of blended learning are discussed. It is noteworthy that most of the reviewed literature relevant to the blended learning environment is from non-Arabic institutes due to the new emergence of blended learning in Arab countries. Accordingly, Arabic literature that addresses the nature of Information and Communication Technologies in Arab institutes and the perceptions of the use of technology in education are also reviewed.

### 3.1 Understanding the Term Perception

Generally, perception is understood as how people view and interpret the world around them. In social sciences, researchers define the term *perception* in many different ways. Therefore, selecting a definition of perception that is applicable to this study is important. In addition to the review of the definitions of perception, this section discusses factors that influence people’s perceptions and the relationship between perception and attitude. The two terms, *perception* and *attitude*, are sometimes used interchangeably. Therefore, the interrelationship between perception and attitude in the literature raises the importance of reviewing the definition of attitude.

According to Sainn and Ugwuegba (1980), perception is defined as, “the process by which we extract meaningful information from physical stimulation. It is the way we interpret our sensations”(p.90). Similarly, Roth (1986) provides a cognitive definition of perception by saying, “The term *perception* refers to the means by which information acquired from the environment via the sense organs is transformed into experiences of objects, events, sounds, tastes, etc.”(p.81). Stuart-Hamilton (1999) views perception as a mental operation that considers sensory information, “the interpretation of the environment through the senses” (p.14), while thoughts and behaviours resulting from detected stimulus are excluded. Significantly, perception is associated with three points (Bruner, 1973 cited in Sainn and Ugwuegba). Firstly, perception is influenced by the stimulus, individual’s experience, intension and social needs. Secondly, the perceiver selects information and forms hypothesis to decide what is actually happening. Finally, perception is an activity of higher mental processes that enables us to have our own view of the world, anticipate future happening and act accordingly. In this study the exploration of the participants’ perceptions, as in the latter statement, allows for understanding how the participants see and anticipate the future of blended learning in Saudi Arabia. Additionally, Bruner asserts that perception is not only influenced by physical stimulation, which is limited in information value, but also derived from past experience and memory. Supporting this view, Covey (1989) believes that perceptions are formulated as a result of social experiences and interaction within school, family and religion. This view is reflected by Brothen’ statement (2002) that previous experience influences people’s perceptions. Consequently, the participants’ perceptions can be influenced by the physical stimulation which is the current blended learning environment including the learning and teaching tools, student-student, student-lecturer as well as student-digital material interactions. All of these stimulations along with the

previous experience of the lecturers and students are expected to assist in forming their perceptions of the blended learning experience.

Moreover, there is an argument that emphasizes the role of attention in forming perception. Atkinson (1996) asserts that attention is necessary in forming careful perception. According to Atkinson, “we perceive and observe only when the attention, reflex or voluntary, is directed to the report of the senses, and when the mind interprets the report. While perception depends upon the reports of the senses for its raw material, it depends entirely upon the application of the mind for its complete manifestation”(p.36). Thus, perception depends largely upon attention. Due to the nature of this study, exploring the perceptions of the participants inevitably agrees with Atkinson’s view. During the data collection processes, the participants are encouraged to focus their attentions on the blended learning concept, the challenges and advantages of the blended courses in order to explore their perceptions through the research questions.

Furthermore, perceptions of lecturers and students towards a learning environment may influence their behaviours in that environment. Individual behaviours that are constructed in a certain context or situation, and influenced by cognitive process of received information from this situation, are called *attitudes* (Wilson & Hodges, 1992). According to Wilson and Hodges, cognitive representations are not retrieved from memory but reconstructed in a context-sensitive way. Eagly and Chaiken (1993) divide the processes of an attitude into three classes: cognitive, affective, and behavioural. They define an attitude as, “a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour” (p.1). Consequently, attitudes may affect individuals to adopt or reject specific behaviours. According to Eagly and



Chaiken, attitudes and perceptions share a similar component which is the cognitive perspectives. This interpretation clarifies why the two terms *perception* and *attitude* are used interchangeably and interpreted similarly by some authors. However, behavioural perspectives as a characteristic of attitude emphasize Lefton's interpretation (1997) that individual's unique perceptions resulted in her or his attitudes.

Within the above definitions of individual's perception, it is evident that perception is reflected by several factors such as individual characteristics, emotion, motivation, needs and expectations. One of the significant factors that influence people's perceptions is their culture (Markus & Kitayama, 1991). This opinion is strongly reflected in the context of the study due to the uniqueness of the Saudi culture which is discussed in details in the previous chapter. Supporting this view, Brunswik (1956) states that perception is influenced by the context, which certainly includes the culture. Moreover, individuals' characteristics are associated with their perceptions of their learning environment (Brunswik, 1965; Goh, 2005). Goh also added that teaching approaches has a strong influence on students' perceptions of their learning environment and consequently affect their learning outcomes. The above points are discussed in the literature as general factors influencing individual's perceptions. However, I believe that every research context has its own influence on its participants. Thus, it is anticipated that the results of this study will provide more detailed factors that influence the participants' perceptions of the blended learning environment.

Furthermore, perceptions of students and lecturers towards a learning environment influence how they learn and teach in that environment. The influence of students' perceptions on the learning situation is discussed by Choy and Troudi (2006) as they said:

*The influence of individual perceptions and attitudes on a learning situation is emphasized by Lave and Wenger (1991) in their social learning process called legitimate peripheral learning. Here the student is perceived as actively taking part in the learning process with constant guidance from the “master,” which suggests that student attitudes and perceptions towards the learning process could be important in determining how well they learn. They note that all learning is based on situations to which learners are exposed. In such situations, learners are not passive receivers of knowledge, but are involved in a process called legitimate peripheral participation where they initially learn from others more skilled than them (p.121).*

This argument describes the relationship between students’ perceptions and how well they learn and how their perceptions are influenced by their experience within the learning environment. Certainly, exploring the participants’ perceptions of current experience of blended courses assists in decreasing any preconceptions of blended learning environment. According to Cope and Ward (2002), the focus of the research on understanding lecturers and students perceptions of learning contexts endeavours to improve teaching and learning. Cope and Ward mention that the research into lecturers’ and students’ perceptions of learning and teaching contexts established a series of systematic associations linking lecturers’ perceptions and their teaching approaches with students’ perceptions, learning approaches and outcomes. These associations demonstrates the influence of the lecturers’ perceptions of teaching and learning on their teaching approaches which has impact on students’ perceptions and approaches of learning and finally on the quality of their learning outcomes.

To conclude, the nature of the research questions led me to define perception, using the two definitions of Sainn and Atkinson, as “a mental process of gaining meaningful information from reception of stimuli as well as focus attention on specific objects within the influence of the social and cultural environment of the research.” The behaviours of lecturers and students of blended courses - their attitudes - reflect their

perceptions of the learning environment. The effect of experiences, culture and personality on perceptions makes people inevitably perceive things differently. Covey (1989) states that the way we see things, “affects not only our attitudes and behaviours, but also how we see other people” (p.67). Therefore, the students’ perceptions reflect how they see their lecturers’ behaviours and teaching approach and vice versa. Consequently, exploring the perceptions of the students as well as the lecturers in the blended learning environment in Saudi Higher Education will assist in understanding how they learn and teach in this new learning environment.

### **3.2 The Concept of Blended Learning**

The significant presence of web-based instruction over the last few years has led to the emergence of the term *Blended Learning*, which is also called *hybrid learning* or *mixed-mode learning*. Blended learning has been identified by the American Society for Training and Development as one of the top ten trends to emerge in the knowledge delivery industry (Rooney, 2003). Significantly, there is no existing universally agreed definition of blended learning (Sharpe *et al.*, 2006) while the most common definition refers to an integration of online learning and traditional face-to-face learning. Graham (2006) indicates that online (web-based) learning and face-to-face learning have remained largely separate in the past due to the differences in their methods and audience needs. He points out that 100% online learning, or distance learning, requires more self-paced learning and learner-materials interactions when compared with (traditional) face-to-face learning that places priority on human-human interaction. However, with innovations in technologies, facilitating human interaction in synchronous and asynchronous online learning has encouraged the integration of face-to-face environment with online environment.

Global practices of blended learning were classified by Graham (2006) into four levels of blended learning: activity level, course level, program level, and institutional level. Table 3.1 shows the differences between these levels according to Graham’s explanation. Graham observes that course level blending is commonly used in blended learning environments. He also indicates that course level and activity level are often determined by the course lecturer.

Table 3.1: Four Categories of Blending Levels (Graham, 2006).

	<b>Activity Level</b>	<b>Course Level</b>	<b>Program Level</b>	<b>Institutional level</b>
How blend occurs	Learning activity contains both F2F and online elements	Distinct F2F and online activities are used in a course	A mix between F2F courses and fully online courses	Blended models created by institutions
Example	Using technological tools in class (Oliver, 2005)	Owston, Garrison and Cook (2006) provide eight different cases of course level blending	A program in Japan in which certain F2F courses are required and the rest are online courses (Jung & Suzuki, 2006).	University of Central Florida has created <i>M</i> courses in which F2F time is reduced when online elements are integrated (Dziuban, Hartman, Juge, Moskal & Sorg, 2006)

In regard to program level blending, Ross and Gage (2006) point out that it is often used in Higher Education. Furthermore, an example of institutional level is the case of the University of Central Florida which was among the first to designate their courses with letters: *E courses* for technology enhanced courses which are fully face-to-face with supplementary online materials, *M courses* for blended courses with reduced seat time and *W courses* for web courses which are fully online (Dziuban *et al.*, 2006). Graham (2006) suggests offering learners the opportunity to benefit from both face-to-face and online environments, and he states that, “it is not sufficient for the institution to have a distance learning division that is largely separate from the on-campus operations” (p. 13).

Among different definitions of blended learning, Graham, Allen, and Ure (2003) documented three common definitions which are: combining instructional modalities or delivery media, combining instructional methods, and combining online and face-to-face instruction. However, Graham (2006) argues that the first two definitions are too broad because they encompass most learning systems in which courses involve at least two instruction methods or modalities, (i.e., face-to-face lectures and text book readings). The last definition, which combines online and face-to-face instruction, can be implemented in three ways: providing online materials similar to the course contents, providing online materials as supplementary resources, and replacing portions of the face-to-face contents with online materials. Graham (2006) named and defined these three categories as follows:

- *Enabling* blend - providing the same opportunity or learning experience through more than one mode: face-to-face and online.
- *Enhancing* blend - providing online supplementary resources for courses that are mainly conducted face-to-face or vica versa.
- *Transforming* blend - utilizing online learning approaches in teaching as a main instruction method combined with traditional learning.

The *enabling* blend can be offered within the program level where online programs or blended programs are offered as an added choice for on-campus students (Lindquist, 2006), while the *enhancing* blend is more likely to be within the course level. Graham observed that the *enhancing* blend with supplementary resources has been given enormous focus in traditional university settings. Supporting this view, Sharpe *et al.*, (2006) observed that the most common type of blended learning is the provision of supplementary resources for courses that are conducted along mainly traditional lines, through an institution-supported virtual learning environment. I should point out that the

early stage of blended learning implementation in Saudi Higher Education also focuses on the *enhancing* blend. This seems to be the way to achieve *transforming* blend which entails more preparation. Naming the last category *transforming* gives an indication that it is the target phase in which the learning environment is transformed from fully online or fully face-to-face into a mixed format that uses both methods as the main instruction. Finally, the *transforming* blend can be within the course level in which activities are determined by the designer or lecturer. In addition, the *transforming* blend can be within the institutional level in which the nature of the blend is determined by the institution. The nature of the blended learning of the investigated case in this study can be identified as *transforming* blends within an institutional level. Both online and face-to-face teaching strategies were considered as a main method of instruction. There was no *enhancing* blend phase in this study, but the *transforming* blend was utilized directly and face-to-face content was converted into a blended course in which a portion of face-to-face instruction was replaced by online activities.

Following the *transforming* blend, the Blended Learning Pilot Program provided by the Rochester Institute of Technology (RIT, 2004) in the 2003-04 academic year defines a blended course as any course in which 25% to 50% of classroom lectures and other seat-times are replaced by instructor-guided online activities, such as online quizzes, virtual team projects, synchronous chat sessions, and asynchronous discussions. In the University of Wisconsin–Milwaukee, however, the blended courses are courses where 20% or more of the traditional face-to-face classroom time is replaced by online assignments and activities.

### 3.3 Conceptual Framework

Placing this study within a conceptual framework, I will use the definition of the 2005 Sloan-C Workshop on Blended Learning because it fits the circumstances of this study where reducing seat-time is a solution to the rapid educational growth of Saudi undergraduate students. In the Sloan-C Workshop, the participants adopted the definition of blended learning where a portion of face-to-face time is replaced by online activity in a planned, pedagogically valuable manner (Laster *et al.*, 2005; Picciano, 2006). Selecting this concept of blended learning gives the study uniqueness because the majority of the previous studies in blended learning saw online learning as a supplement to face-to-face learning or as a digital replacement of textbook materials (Singh, 2003; Vaughan, 2007). The idea behind blended learning is to blend the best features of the two environments: face-to-face and online learning. Of course, the rapid innovations in using technologies in education have shown how online learning has the potential to decrease isolated learning and promote a social-cultural environment which was absent in online learning previously. However, sustaining the advantages of both environments cannot be achieved without the integration of online learning with face-to-face learning to achieve a cohesive learning process.

The mixing of face-to-face learning and online learning in a blended environment involves understanding the learning theories of the two different environments. There are arguments for the different concepts and understanding of the term *blended learning* and how it is not a homogeneous field within a learning theory. According to the Blended Learning Research Reports (2007), “The theory of blended learning does not seem to ‘belong’ to one learning theory but is rather a method used within different pedagogical approaches” (p. 11). The three broad learning theories that are commonly used in instructional environments, behaviourism, cognitivism and constructivism, not

only underpin face-to-face instruction but also “The design of online learning materials [that] include principles from all [these] three schools of thought”(Ally, 2008, p. 20). Behaviourism theory is based on observable change in behaviour. It views the mind as a *black box* in which the possibility of thought processes occurring in the mind is totally ignored. Cognitive theory emerged to emphasize thought processes behind the behaviour while constructivism has been developed by theorists arguing for moving away from the conventional type of learning to an emphasis on dialogue, reflection and communication to encompass praxis. Constructivists believe that knowledge is constructed and interpreted based on learners’ perceptions of experience. A research project which was conducted in the UK (Jones & Jones, 2004) to explore pedagogy with tutors of an online environment concluded that online learning is commonly based on a constructivist perspective, but there is currently little verification to substantiate this.

Relying on behaviourism theory only in designing web-based learning environments results in limited learner-content interactions, and fails to promote student-lecturer interaction (Hirumi & Bermudez, 1996 cited in Woo & Reeves, 2007). Woo and Reeves (2007) indicate that constructivism has influenced education since 1990. Constructivism is defined by Schwandt (1997) as:

*Philosophical perspective interested in the ways in which human beings individually and collectively interpret or construct the social and psychological world in specific linguistic, social, and historical contexts.*  
(p. 19)

Constructivists believe that knowledge is constructed out of individuals’ experiences. According to Simina and Hamel (2005), the assumptions of the constructivist philosophy encourage the integration of online learning in education. A virtual environment has the potential to provide the context for social interaction and collaboration that enhance the construction of knowledge. Simina and Hamel indicate



that computer users interact with learning materials and with other people which is a combination of the social and individual aspects. This is best expressed by social constructivism as developed by Vygotsky, in which social interaction, language and culture are emphasized. Supporting this view, Woo and Reeves (2007) and Wise and Quealy (2006) strongly recommend that the pedagogy of web-based learning has to be based on social constructivism learning theory. Sharing of texts, audio materials, and videos through virtual interaction facilitate the development of individual and groups' knowledge and the construction of diversity in perceptions. Social constructivists recognize the interaction between social interaction and cognitive activity. As Confrey (1995) states, "the crucial constructive processes are strictly subjective and developed across social interaction" (p. 214). According to Woo and Reeves (2007), "recently, many educators have come to see the value of social constructivism as a foundation for the design of more effective learning environments" (p. 18). Although social constructivism is recognized as a fashionable and workable framework for e-learning, Wise and Quealy (2006) indicate that "social constructivist pedagogies and online learning have been conceptually conjoined with little attention to theoretical detail" (p. 903), which reflects that "social constructivist learning does not require technology, and does not emerge directly from use of online environments" (p.903). This argument agrees with Jones and Jones's note (2004) that there is currently no clear pedagogical philosophy underpinning online courses. At the same time, there is an argument about the need for new learning theories that recognize the influence of technology on learning processes. The opinion is that the current learning theories require development of the learning processes in the digital era.

Ally (2008) points out that the information explosion in recent years has resulted in a type of learning that is not under the control of the learner. According to Siemens

(2005), “Over the last twenty years, technology has reorganized how we live, how we communicate, and how we learn. Learning needs and theories that describe learning principles and processes should be reflective of underlying social environments” (para. 1). Under discussion is a new learning theory, *connectivism* (Downes, 2007; Siemens, 2005). Ally (2008) argues about the need for *connectivism* in this digital age:

*Behaviourist, cognitivist, and constructivist theories have contributed in different ways to the design of online materials, and they will continue to be used to develop learning materials for online learning. Behaviourist strategies can be used to teach the facts (what); cognitivist strategies, the principles and processes (how); and constructivist strategies to teach the real-life and personal applications and contextual learning. There is a shift toward constructive learning, in which learners are given the opportunity to construct their own meaning from the information presented during the online sessions. In addition to the existing learning theories, connectivism should be used to guide the development of online learning, since the other learning theories were developed before we became a networked world (p. 39).*

*Connectivism*, as defined by Siemens (2005, para. 22), is “the integration of principles explored by chaos, network, complexity and self-organization theories.” According to Siemens, the principles of *connectivism* are:

- *Learning and knowledge rests in diversity of opinions.*
- *Learning is a process of connecting specialized nodes or information sources.*
- *Learning may reside in non-human appliances.*
- *The capacity to know more is more critical than what is currently known.*
- *Nurturing and maintaining connections is needed to facilitate continual learning.*
- *The ability to see connections between fields, ideas, and concepts is a core skill.*
- *Currency (accurate, up-to-date knowledge) is the intent of all connectivist learning activities.*
- *Decision-making is itself a learning process. Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision. (para. 24)*

Based on the above arguments, the nature of blended learning which involves an interactive learning environment raises the need for research and development of a new learning theory that enhances learning processes.

Furthermore, with more attention to wider guidelines for this new learning environment, Garrison and Vaughan proposed a descriptive and a wide model for blended learning called a Community of Inquiry model (Chew, Jones & Turner, 2008). Community of Inquiry is rooted in Dewey's assumption of constructivism. Garrison and Vaughan (2008) argue that the concept of a Community of Inquiry "provides a much needed roadmap for blended learning approaches and designs. The Community of Inquiry framework provides the order and rationality to understand the nature, purpose, and principles of blended learning" (p. 10). The Community of Inquiry goal is to enable learners to become fully engaged and responsible for their learning. According to Arbaugh (2007), the development of the Community of Inquiry model by Garrison and Vaughan as the guidelines for online and face-to-face learning and teaching have become the most cited piece of research in the journal *The Internet and Higher Education* to date. Blended courses have the ability to facilitate a community of inquiry (Garrison and Kanuka, 2004). In addition, Garrison and Kanuka indicate that blended formats foster critical thinking and facilitate collaborative learning.

The process of inquiry is the key to Community of Inquiry. Learning processes go beyond accessing information to reflection and collaboration which are supported by the community whose connection is that of academic interests that gives shape to the inquiry process. The elements of the Community of Inquiry are: social presence, cognitive presence, and teaching presence. Chew *et al.* (2008) indicate that Vaughan and Garrison have successfully given more focus to *learning* instead of *technology* in

the blended learning concept. Table 3.2 presents the categories and indicators for Community of Inquiry elements (Garrison & Vaughan, 2008).

Garrison and Vaughan (2008) indicate that:

*Each of these presences reflects categories and indicators that operationalize the elements used to study and design the teaching and learning transaction. It is important to note the interdependence across and within the presences. For example, teaching presence will have a significant influence on cognitive presence, and social presence will influence cognitive presence. (p. 19)*

Table 3.2: Community of Inquiry Categories and Indicators (Garrison & Vaughan, 2008).

Elements	Categories	Indicators (examples only)
Social presence	Open communication Group cohesion Affective/personal	Enabling risk-free expression Encouraging collaboration Expressing emotions, camaraderie
Cognitive presence	Triggering event Exploration Integration Resolution	Having sense of puzzlement Exchanging information Connecting ideas Applying new ideas
Teaching presence	Design and organization Facilitation of discourse Direct instruction	Setting curriculum and methods Sharing personal meaning Focusing discussion

With the above descriptions of the theories associated with blended learning, it can be seen that the selected definition of blended learning used in this study, is underpinned by the connectivism theory and the Community of Inquiry model. Adopting the elements of the Community of Inquiry, namely, social presence, cognitive presence, and teaching presence, is required in order to facilitate student engagement in learning. In addition, the nature of the blended learning environment emphasizes the principles of connectivism. For example, connecting the learning activities of the two environments is a vital principle. Using these two theories to underpin the selected definition will enable the implementation of blended learning to operate ‘in a planned, pedagogically valuable manner’.

### **3.4 The Terminologies: E-learning and Blended Learning**

Due to the new emergence of the terminology *blended learning*, there is a mixture between the use of *blended learning* and *e-learning* in institutions as well as some literatures. This section provides an explanation about the difference between e-learning (electronic learning) and blended learning. Generally, e-learning has been used to describe learning that is supported by technologies through various types of delivery modes.

Since 2002, e-learning has become an umbrella term that covers web-based instruction, online learning, networked learning, computer-assisted learning and computer-mediated learning (Littlejohn & Pegler, 2007). All of these terms refer to the use of information and communications technologies in learning. The relationship between e-learning, Information Technology (IT) and Information and Communication Technologies (ICT) is identified in the eclipse diagram by Markos Tiris. Figure 3.1 shows that e-learning is based on Information Communications Technologies, which is derived from Information Technologies, to offer learning.

Abbad, Morris and Nahlik (2009) state that e-learning, in its broadest sense, is the learning that is electronically enabled, while in its narrowest sense it is web-based or Internet-enabled. Supporting this point, Conole and Oliver (2006) state that e-learning refers to “the term most commonly used to represent the broader domain of development and research activities on the application of technologies to education” (p. 4). However, Littlejohn and Pegler (2007) indicate that it is difficult to be precise in defining e-learning due to the rapid development of technologies that support learning.

In addition, e-learning is used to refer to blended learning as the case of the Open University programs. Supporting this point, Littlejohn and Pegler argue that the common use of e-learning is for distance Internet-based learning while there is a blended mode of e-learning that combines face-to-face and online mode. The literature shows that there is a differentiation in the use of the terminologies *e-learning* and *blended learning*. Therefore, to avoid the interchangeable use of blended learning and e-learning, I choose in this study to use online learning and web-based learning to refer to e-learning that is Internet-enabled while blended learning can be identified as learning that combines face-to-face learning with online learning (see figure 3.2).

IT	Information Technology	The computer infrastructure, hardware and software used to process data and deliver information.
ICT	Information and communication technologies	The combination of computing and communication technologies (including computer networks and telephone systems) that connect and enable some of today's most exciting systems, e.g. the Internet.
E-learning	Electronic learning	E-learning is learning supported or enhanced through the application of information and communications technology.
ILT*	Information and learning technologies *	This was used in further education colleges, to refer to the use of information and communication technologies to support the core business of colleges: the delivery and management of learning.  * The current term is e-learning and technology.

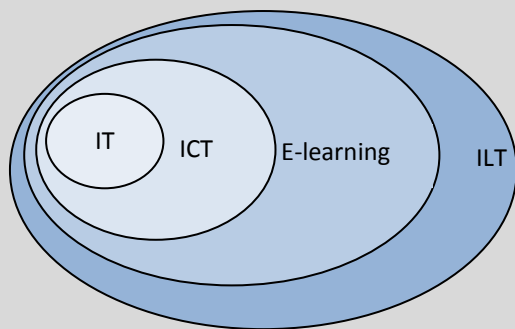


Figure 3.1: The Eclipse Diagram by Markos Tiris, LSDA, 1999 and the Definitions Used in the Centre for Excellence in Leadership's Report (CEL, 2003).

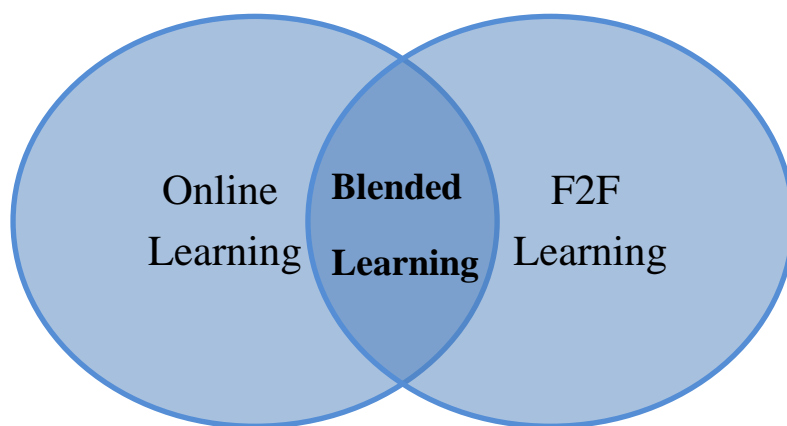


Figure 3.2: A Diagram of the Blended Learning Definition.

Furthermore, the use of these two terminologies in the Arabic language is of importance to this study. It is noteworthy that the Arabic word for blended learning has been rarely used in the Arabic literature while it was an unrecognized term in almost all of the institutions in Saudi Arabia and Gulf countries until 2009 when King Khalid University used the Arabic translation for blended learning. The most commonly used Arabic term is a translation of *e-learning*. In the Student Guide of the Saudi branch of the Arab Open University, course credit hours are structured with an allocation of 25% face-to-face and 75% online instruction. Although this course design is expected to be called blended learning, all of the courses in the Arab Open University are called e-learning courses. Thus, *blended learning* is not yet a familiar term in Saudi Higher Education. As I observed, e-learning is used in Saudi Higher Education to refer to supplementary online materials. In addition, fully online courses as well as blended courses in Saudi Higher Education are also called e-learning courses.

### 3.5 Rationale for Blended Learning

The use of the Internet in education has strongly influenced teaching and learning in the twenty-first century. In general, universities are recognizing the need for a change in Higher Education. Young (2002) points out that not all students learn in the same way, therefore the traditional approach is not ideal for all students. Littlejohn and Pegler

(2007) indicate that e-learning is the way to tackle the global challenge of meeting the demand for Higher Education. With the expansion of the Internet, university courses were developed to be taught online to provide access to Higher Education. However, entirely online courses have been criticized for the lack of socialization and support benefits of traditional instruction (Bersin & Associates, 2003). So and Brush (2008) indicate that students on totally online courses are likely to be dissatisfied and frustrated due to a number of changes such as inadequate infrastructure and lack of synchronous communication. Acknowledging a different perspective, Linardopoulos (2010) stated that a fully online version of a public speaking course can be comparable to a face-to-face version in terms of skills, knowledge acquisition, workload and academic rigor. The study examined perceptions of students enrolled in entirely online public speaking course towards a number of variables including effectiveness of delivery and knowledge acquisition. The results reported student satisfaction and that they would re-take online courses if given a chance. However, the author asserted that this online course is best suited to students familiar with video recordings and online environment. Another study conducted by Pincas (1998) reported successful collaborative learning and insights gained from his experience in running and teaching two online courses at the Institute of Education. The study demonstrated a number of benefits of computer mediated communication such as offering the ability to run several discussions at the same time and enabling every one to contribute without interruptions. Pincas asserted on the role of the teacher in facilitating the student-student collaboration and providing feedback.

More specifically, Bonk (2004, cited in Jones and Lau, 2009) discusses four main sources of pressure within e-learning, including innovation in learning technology, demands from learners, enhanced pedagogy and reduced budgets. Garrison and Vaughan (2008) state that “blended learning addresses the issue of quality of teaching



and learning. It is an opportunity to address pressing pedagogical concerns, while distinguishing and enhancing the reputation of institutions of higher education as innovative and quality learning institutions” (p. 153). Blended learning provides more guidance for e-learners and adds more flexibility and accessibility for in-class learners by integrating face-to-face learning with web-based learning. Obviously, the most common purpose of blended learning is the possibility of combining the best of both traditional and online learning (Young, 2002; Graham *et al.*, 2003; Kumar, 2007). According to Jones and Lau (2009), universities are moving from a completely online delivery to a blended learning mode because of the importance of a human element, as supported by Cooper (1999, p. 26, cited in Jones and Lau, 2009) who remarks that, “...electronic contact cannot currently sustain the qualities and multi-dimensionality of the kind of tutor-student relationship that real learning seems to require”. On the other hand, the shift to blended courses by King Saud University in Saudi Arabia was intended to address the increase in the number of undergraduate students in fully traditional face-to-face courses. Consequently, the challenge was to solve the problem of a lack of qualified lecturers and lecture room space. Similarly, this solution was employed by the University of Central Florida to address the shortage of classroom space.

Moreover, the blended mode is preferred over completely online courses by undergraduate students locally and internationally. A study by Owston *et al.* (2006) on blended learning in Canadian universities observed that lecturers of a Canadian university argued that face-to-face contact was necessary for some first-year university students who need more guidance and that was the purpose for transforming fully online course to a blended format. A study was also conducted at King Fahd University of Petroleum and Minerals in Saudi Arabia by Mohandes, Dawoud, Amoudi and Abul-

Hussain (2006) to examine students' views of the use of the blended mode compared to an entirely online mode in an electrical engineering course. Selected materials from the course were taught to students completely online. The results show that about 90% of the students preferred the blended mode over fully online courses and 80% of them emphasized the importance of lecturer support. The participating students preferred the online course material as supplementary material. Mohandes *et al.* state that students resisted the idea of replacing the traditional face-to-face classes with fully online learning. Although the study of Mohandes *et al.* gives an indication of students' perception, it was for males only and limited to an electrical engineering course experience.

Several international studies have been conducted to prove the effectiveness of blended learning. Graham (2006) contends that a blend of face-to-face and online learning offers "effective learning experiences, increasing access and flexibility, or reducing the cost of learning" (p. 16). In respect to cost-effectiveness, a blended model has the advantage of reducing cost for buildings and facilities (Bleed, 2001) as well as commuting costs for students who live off-campus. Universities such as the University of Central Florida, have predicted cost effectiveness due to cost saving in the physical infrastructure (Graham 2006). However, Littlejohn and Pegler (2007) argue for hidden costs of e-learning support and infrastructure that are not acknowledged. In Saudi Arabia, the cost effectiveness of blended learning in public universities is not an issue as in recent years, and for the future, there is a massive fund for Higher Education.

Blended learning has been implemented with various designs and has shown a considerable positive effect on the learning process. Dziuban and Moskal (2001) indicate that teaching blended courses can give the lecturer the opportunity to use new

educational technology. They report that learning how to use technology in education was one of the perceived outcomes that the lecturers of the University of Florida liked the most in blended teaching. Also, studies from institutions such as Stanford University and the University of Tennessee have proven that blended learning is better than utilizing traditional methods and e-learning technology separately. Singh and Reed (2001) state that “blending not only offers us the ability to be more efficient in delivering learning, but more effective” (p. 6). A larger research study by Sharpe *et al.* (2006) reviewed over 300 studies of blended learning in the UK and reported that among the rationales for blended learning are:

*... flexibility of provision, supporting diversity, enhancing the campus experience, operating in a global context and efficiency. A few course level rationales related to institutional strategy, particularly offering flexibility in time and place of learning. However, most rationales at this level were in response to practical challenges being faced by staff and/or in response to student feedback (loss of staff-student contact, large classes, inconsistency in quality and quantity of feedback between markers) as well as responding to the demands of professional bodies in vocational courses. The rationale reported most frequently by local implementations was maintaining quality in response to increasing cohort sizes. (p. 3)*

Studies have shown overwhelmingly that blended learning is used to facilitate access and flexibility, improve pedagogy, simplify revision and increase cost-effectiveness (Graham, Allen, & Ure, 2005; Osguthorpe & Graham, 2003) and improve performance. The entire group of lecturers who participated in a blended learning pilot program at the University of Wisconsin-Milwaukee stated that they would teach blended courses again, as they experienced a better learning environment for both students and themselves (Garnham & Kaleta, 2002). Moreover, the lecturers of University of Glamorgan agreed that the blended mode facilitated a better understanding of different learning styles and pedagogies, which is considered an essential move towards change in education (Jones & Lau, 2009).

The flexibility and accessibility offered by blended learning has been identified as a means for providing Higher Education to a broader population regardless of geographical situation and culture. For example, it facilitates learning for students who live far away from the university or have other commitments that conflict with the on-campus class time. The advantage of blended learning for rural areas was acknowledged by Yudko, Hirokawa and Chi (2008) in a study exploring students' attitudes towards combining online learning with face-to-face learning in the State of Hawaii. As residents of a unique geographical location facing barriers that include greater travel distance, the students had a positive attitude toward blended courses with the strongest support from those who were the most computer/Internet literate. The authors concluded that the study emphasizes the potential benefits of combining this content delivery method with traditional classroom lectures (hybrid course). However, they stated that the impact of this new learning method on the students' learning experience has yet to be investigated.

Moreover, as a result of the SARS epidemic in China, the introduction of the concept and method of blended learning was a natural start for the application of e-learning in regular university instruction. Not only do people understand the value of blended learning in university environments, but they also now understand that it offers a way to continue instructional activities when emergencies or disasters interfere with regular instruction (Huang & Zhou, 2006). In Saudi Arabia, blended learning was used in two International schools in Riyadh to manage the disruption in learning as a result of the 2009 H1N1 Virus pandemic. The two schools utilized a blended learning approach using LMS for online learning to manage the situation. However, to control the spread of the H1N1 Virus, other schools were closed for a couple weeks in Saudi Arabia causing major disruption to their curriculum. The use of blended learning as a learning

development approach could address such health disasters that affect the stability of traditional studying at all education levels.

At the same time, blended learning without reducing seat time was criticized by the participants' students of El-Mansour and Mupinga's (2007) study, where blended and online courses at a US mid-western college were investigated. The blended course was implemented by offering the same course material presented for students in class through the online course management platform. Twelve students who were enrolled in a blended course and 41 students who were enrolled in an online course were interviewed in this study. In the blended course, the students rated the lecturer availability and the option of scheduling the class face-to-face and online as positive, and the rigid schedules for the face-to-face sessions and technical problems with computers and the Internet service as negative.

Furthermore, studies have shown that students' attitudes and motivation have been enhanced by blended learning. For example, the attitude towards mathematics and computers of male students in a blended course were examined at King Fahad University in Saudi Arabia, using a quantitative study (Yushau, 2006). The aim of the study was to investigate the effect of blended e-learning on students' attitudes towards computer and mathematics. Two modes of learning were implemented during the experiment: offline learning, consisting of a normal classroom lecture conducted three times a week in a traditional manner, and online learning consisting of a weekly computer lab session with availability of online learning resources in the intranet and Internet for the students. The results indicate that the students have positive attitudes towards mathematics and computers. Although this conclusion indicates that blended courses enhance students' attitudes towards computers and mathematics, it does not

provide insights about the whole learning experience. Moreover, a study in a Saudi Arabian University was conducted by Al-Jarf (2005) to find out whether or not integration of online learning with face-to-face grammar instruction significantly improves English-as-a-Foreign-Language (EFL) freshman college students' achievements and attitudes. The study concluded that in learning environments where technology is unavailable to EFL students and lecturers, use of online activities from home as a supplement to in-class techniques helps motivate and enhance EFL students' learning and mastery of English grammar.

In addition, interaction via virtual environments enables confidence in presenting opinions and helps to overcome student shyness. Specifically, this advantage is more acknowledged in some Arab countries. Supporting this view, Tubaishat, Bhatti and El-Qawasemah (2006) discussed the unique culture in Arab countries where individuals of different genders have restrictions on meeting and communication due to the social, cultural, and religious reasons. They state that:

*Cultural and social values in Middle Eastern countries are usually based on gender segregation. This factor results in a lack of interaction, lack of confidence in communication and a lack of opportunity to meet and exchange ideas with members of the opposite gender. Society in general has stricter rules of interaction and communication for females. (p. 676)*

A case study based on surveys was conducted in two Arab countries, Jordan and the United Arab Emirates (UAE), to explore the impact of technology and culture on Higher Education (Tubaishat *et al.*, 2006). The students at Zayed University and the Jordan University of Science and Technology (JUST) found that interaction with their peers after campus hours was enabled with the use of technology. Tubaishat *et al.* (2006) state that, "It was very interesting to learn that all students felt that the use of online learning environment removed the cultural and social limitations imposed by

restrictive learning environment at ZU and JUST” (p. 675). The study concluded that online environments improve motivation and confidence levels of students and allow students to express their feelings and ideas more openly with others. This result shows that conservative Gulf Arab societies would benefit significantly from the use of technology in learning to address some society restrictions due to culture and traditions. Accordingly, it is vital to understand the perceptions of blended learning in Saudi gender-segregated society and understand its relationship with the culture and traditions.

The relationship of student interaction with blended learning was also found in DeLacey and Leonard’s study (2002), as they reported that students not only learned more when online sessions were added to traditional courses, but that student interaction and satisfaction improved as well. Supporting this view, So and Brush (2008) state that integrating online sessions with traditional courses improve student interaction and satisfaction. “Reflection and even interaction is greatly limited in most campus-based classrooms because of the number of students, along with dated pedagogical methods” (Garrison & Vaughan, 2008, p. 31).

How blended learning facilitates interaction was also acknowledged in a study conducted at the College of Education at the United Arab Emirates University (Alghazo, 2006) aimed at investigating 66 female students’ attitudes toward web-enhanced instruction in an educational technology course. The results of the survey revealed that students had positive attitudes toward most aspects of web-enhanced instruction. Many advantages of web-enhanced instruction were identified such as the ease of submitting assignments and obtaining grades via the online system, the easy access to supplementary materials, and increased course understanding and communication with the lecturer and the classmates.

Moreover, Abu-Mosa (2008) investigated the effect of blended learning on 35 pre-service teachers' achievement of the Computer Assisted Instruction (CAI) course and attitudes toward the strategy of blended learning at the Jordan branch of the Arab Open University. The results show that this new learning strategy affected the students' interaction and understanding of the course contents positively. Consequently, the students had a better performance, which was a result of the increase in their motivation for studying (Abu-Mosa, 2008). Student performance was also reported as an advantage of the blended mode in large classes (Rodanski, 2006). A blended course was redesigned to respond to the challenge of delivering tutorials to large classes with timely assessment and feedback replacing class tutorials by web-based activities. Obviously, this design was selected for technical, field-of-practice engineering subjects. The initial findings of the study have shown excellent student performance, with the average final score rising from 51 to 68 and the failure rate dropping from 42% to 15%. However, Rodanski (2006) claims that it is still too early to draw any definitive conclusions, by saying "We hope that future results will confirm the validity of our approach" (p. 4). The later study agrees with the statement of Sharpe *et al.* (2006) that blended learning designs have been implemented in Higher Education courses to tackle problems created by large group sizes.

The above studies show positive attitudes towards blended courses in international universities while the Saudi Arabian studies focus on the use of web-based education. A few of the Saudi studies investigated particular elements of blended courses such as attitude towards computers or comparing the blended courses with online courses in only male universities. Therefore, it can be seen that there is a shortage of studies that



investigate students' and lecturers' perceptions and experiences of blended courses in Saudi Arabia.

### **3.6 The Role of Institutions**

Successful learning processes in Higher Education demand major contributions from institutions. Specifically, implementation of blended learning has to be addressed by institutions to facilitate a better learning experience and overcome any challenges of this new learning environment. Garrison and Kanuka (2004) emphasize the essential role of institutions in creating the necessary policy, planning, resources and support systems to enable successful implementation of a blended learning program. In addition, a quality experience for the learner is becoming one of the major objectives in most institutions and universities. The role of institutions in a blended learning environment inevitably has a strong influence on students' and lecturers' learning and teaching experiences. In this study, the blended courses were implemented at the institutional level, which means they were influenced by the institutions' policy, planning, resources and support system.

The movement to a desirable blended learning environment would not happen without clear policy principles and strategic plans. Garrison and Vaughan (2008) state that institutions aiming to implement blended learning must be able to debate and discuss policy questions: "Why should higher education adopt blended learning approaches? What is the nature of the educational experience that blended learning represents? How does blended learning challenge traditional assumptions and practices? How will blended learning challenge expectations for faculty and students? How will the adoption of blended learning be managed?" (p. 164). Moreover, Vaughan (2007) asserts that the leadership that aims to adopt blended learning needs to consist of:

*..three interrelated core elements; vision, interpersonal skills, and courage. The vision for blended learning must be in the best interests of the institution and truly shared amongst the constituent members. The senior administration team must possess the interpersonal skills to work collaboratively with others. This involves the ability to share ideas but also the willingness to listen to contrary views. Finally, these leaders must have the courage to "stay the course" and make the necessary hard decisions (i.e., creating new policies and procedures while discontinuing existing ones) required for the development and growth of blended learning opportunities in higher education institutions. (p. 93)*

Policy documents, therefore, have to be developed (Garrison & Vaughan, 2008) in order to guide the planning and the implementation. In Saudi Arabia, there is still no public or shared documented policy of blended learning. However, the Ministry of Higher Education has started to promote *Excellence in Education* (King Saud University, 2010) which in turn is encouraging the universities to develop shared documented policies for current and proposed education systems.

Moreover, when developing new policies institutions have to be aware of the role of culture. Culture has an influence on all aspects of life including education. For example, a traditional university culture with no online learning experience has to be considered when implementing blended learning. Generally, the success of the implementation of a new educational system involves understanding the cultural aspects of the society. For example, learning in a Muslim society where religion is part of the culture is different from the West where religion is separate from culture. Al-Harhi (2005) clarifies this point by saying, "Cultures constantly negotiate the unpredictable social consequences of technology on moral, political, cultural and religious values. Accordingly, they either restrict or advance the use of technology" (p. 4).

The impact of culture in Saudi Arabia can be seen from the results of a large scale research project conducted in Saudi Arabia, which found that cultural and religious

beliefs can be a barrier to Internet usage by lecturers (Al-Wehaibi, Al-Wabil, Alshawi & Alshankity, 2008). The study reviewed the barriers as illustrated in Table 3.3. Based on a questionnaire, the objective of the study was to investigate the problems of using the Internet as reported by lecturers in teaching, communication and research. The most common barriers were related to Internet connectivity, intellectual property issues, and concerns with the loss of privacy.

Moreover, the perceptions of the Saudi female lecturers regarding the potential use of the Internet were investigated by Al-Kahtani, Ryan and Jefferson (2006) and revealed interesting conflicts based on age and academic discipline. Conservative elements of the society see the Internet as a danger to societal norms because of its unethical content while lecturers in science disciplines see it as a powerful tool for work enhancement.

The above studies assert that culture has a strong influence on education in the Saudi context. Due to the unique culture of Saudi Arabia, there is a demand to research, through a cultural lens, the experience of female students and lecturers undertaking blended courses in Saudi universities.

Table 3.3: Summary of Problems in Internet Usage by Lecturers in Saudi Arabia (source: Al-Wehaibi *et al.*, 2008).

Level	Barrier
Individual	Language barriers Compatibility with cultural and religious beliefs Lack of technical skills Inadequate instructional design skills to effectively integrate Internet technologies in the curriculum , Lack of time Perceived risks (intellectual property, loss of privacy, plagiarism)
Organizational	Reward and recognition Support in terms of training and fostering innovative environment Subscribing to academic research dbases Policies and planning Student connectivity and skills/training Technical support
Infrastructure	Connectivity, Availability of PCs/basic technology Filtering and blocking websites

To overcome lecturers' negative perceptions of the potential of the Internet, Al-Kahtani *et al.*'s study developed a theory named Internet Technology Acceptance as a Theoretical Abstraction that has yet to be validated. Undoubtedly, lecturers' perceptions of the use of the Internet are predicted to influence their attitudes towards blended learning. Furthermore, Al-Harhi (2005) adds that Muslim culture also has an impact on the design of online courses. One example of the impact of culture in Saudi Arabia is that songs and dancing are not included in Saudi curriculums. Al-Harhi suggests that the impact of different cultures on course design could result in a lack of shared meanings. Culturally, people do not necessarily share the same meanings in respect to the layout of graphical interface, images, symbols, colours and sound (Chen, Mashhadi, Ang & Harkrider, 1999, cited in Al-Harhi, 2005).

Furthermore, appreciating the influence of culture while implementing blended learning, institutions also face a challenge of determining the required infrastructure and support. The perceptions of students and lecturers towards blended learning are affected by infrastructure and support from their institution. Institutions also encounter a challenge of providing quality of the learning experience which can be evaluated by researching students' and lecturers' perceptions. The following sections discuss the literature relevant to the role of institutions towards infrastructure, support and quality of the learning experience.

### **3.6.1 Infrastructure and Support**

Infrastructure and technical support were identified as a challenge in Internet usage by lecturers in Saudi Arabia (Al-Wahaibi *et al.*, 2008). Certainly, the role of institutions in blended learning implementation involves consideration of resources and support systems. For example, infrastructure including computer labs and Internet access are

major resources for integrating web-based instruction. Studies in the Middle East, in Saudi Arabia as well as the UAE, illustrate that Internet accessibility is of concern to lecturers (Alghazo, 2006; Al-Dakheel, 2007; Al-Masaad, 2008). Alghazo (2006:628) states that “it is important to improve the quality of Internet access and provide faculty members with the proper technical support.” The bandwidth also has a major effect on the contents selection and delivery.

Moreover, online learning has mainly been provided through the use of a Learning Management System (LMS). This is an online system that enables lecturers to create and deliver course content, monitor student participation, and assess student performance. It is noteworthy that the LMS was identified by current learners as a communication and support tool, not as a learning tool (Heinze & Procter, 2004). LMS offers students the opportunity to use interactive features such as online discussions and video conferencing. The available LMS software differs according to different characteristics such as whether it is free of charge or commercial, whether it is an open source or not, and whether it is international standards compliant. Monsakul (2007) clarifies these issues:

*Most LMSs share two fundamental functions: 1) being a content provider and 2) being a communication tool in an online environment, individual LMS has its own strength, for example, some LMSs provide more flexibility due to their customizing functions, while some give reliable access, and some, which are open source, [are] free of charge. (p. 8.2)*

Most commercial and open source LMSs share the same features and functions with a few differences in their names. Appendix A includes Table A-1 which lists the most common LMS features. Some of the famous LMSs are: BlackBoard, Desire2Learn, E-College and ANGEL. Blackboard is one of the leading commercial LMS widely used in North American and European universities. For its Arabic enabled feature, some Saudi

Universities have started to offer Blackboard. As described in Chapter two, the LMS *Jusur*, which was created by the National Centre for E-learning and Distance Learning in Saudi Arabia, is used in this study. Jusur is compatible with English and Arabic language.

Other key challenges that arise when implementing blended learning are related to the extension of comfort levels when using technology in education, the level of students' self-discipline, organizational and managerial support and student responsiveness (Graham *et al.*, 2003). Ndon (2006) adds that support from institutions would not be obtained without realizing the advantages of the blended model and explaining the benefits to the students.

The literature has shown that lecturers and students are different in their requirements and skills for using web-based education. Vaughan (2007) states that "support for students and faculty is a key component of blended learning. Technology training and support should be available for students and professional development support for the faculty" (p. 93). Several studies of a blended learning environment found that students had difficulty adjusting to blended learning (Aycock, Garnham & Kaleta, 2002; Bonk, Olson, Wisher, & Orvis, 2002). This is because students have to maintain self-motivation and self-management as there is more emphasis on independent learning in an online environment and less in-class time. In addition, Aycock *et al.* (2002) indicate from the experience of teaching blended learning that students' lack of time management skills rather than technologies was a significant challenge. Supporting this view, a local study was conducted by Al-Dakheel (2007) to investigate the female lecturers' views in the College of Education at King Saud University towards the use of

e-learning in university education shows that the major concerns were technical support and students' skills.

Significantly, it cannot be predicted whether Saudi undergraduate students, who are used to the traditional didactic, lecture-based classroom, will adapt and accept blended learning (Alebaikan & Troudi, 2010a). The majority of Saudi University students have not experienced online learning. Unlike a traditional approach, blended learning requires a high level of student discipline and responsiveness. A study that was conducted on Saudi undergraduate students enrolled in an English course supplemented with online activities, argued that some students did not take online instruction seriously as it was not used by other lecturers and students at the college (Al-Jarf, 2005). Certainly, taking online instruction seriously also requires students to have an adequate level of self-discipline.

In addition, student support has to be considered and must be available in various forms of contact – phone, email, FAQ (for self-help), and support forums need to be established within a course to allow students to help each other. Student support is usually offered through Student Services Centres in institutions. The type of support should vary according to the learning system requirements. Students as well as lecturers of blended courses may need IT support outside university working hours. Therefore, for students and lecturers, particularly IT support, has to be addressed when implementing blended learning.

Confirming this, Ndon (2006) found that sufficient training, mentoring and support helped lecturers who had no experience in online teaching, to be able to adopt a blended model successfully. Another study by Moore and Aspden (2004) noted that students

were able to use the new system more easily because of the thorough orientation and user-friendly virtual learning environment. Furthermore, transforming traditional courses into blended courses requires more time than developing traditional courses because of the necessity of redesigning the course (Alebaikan & Troudi, 2010a). Institutions that commit to blended learning need to recognize the importance of professional development for their lecturers and especially the different and larger demand on the lecturer's time. The lecturers have to manage the time demands for online teaching by making information always available for students online. The time required by lecturers who implement blended courses will increase because they must develop digital content and moderate online learning.

Lecturers will have to adjust their schedules to accommodate more frequent interaction with students who generally expect more frequent feedback in online environments than in face-to-face environments (Graham *et al.*, 2003). A course with online components forces lecturers to spend more time in developing and administrating than a similar course delivered totally face-to-face (Dziuban & Moskal, 2001). Lecturers typically incur an increase in the time they spend on learning new techniques and skills. Thus, professional development that teaches lecturers strategies of online teaching is also important.

To help support lecturers with design and practical methodological issues in the area of blended learning, a five-stage model was proposed by Gilly Salmon (see figure 3.3). The model aims to facilitate the process of designing and running online activities that motivate and engage students based on interaction. Gilly Salmon's *E-moderating: The Key to Teaching and Learning Online* book (2004) offers a five-stage model as one of the guidelines that could be followed for efficient online learning. It is offered as a



resource for practicing e-moderators. Salmon defines an e-moderator as an individual who “presides over an electronic meeting or conference...” (p. 3). The five stages in the model are: access and motivation, online socialization, information exchange, knowledge construction, and development. Each of these stages requires different student skills and e-moderating skills.

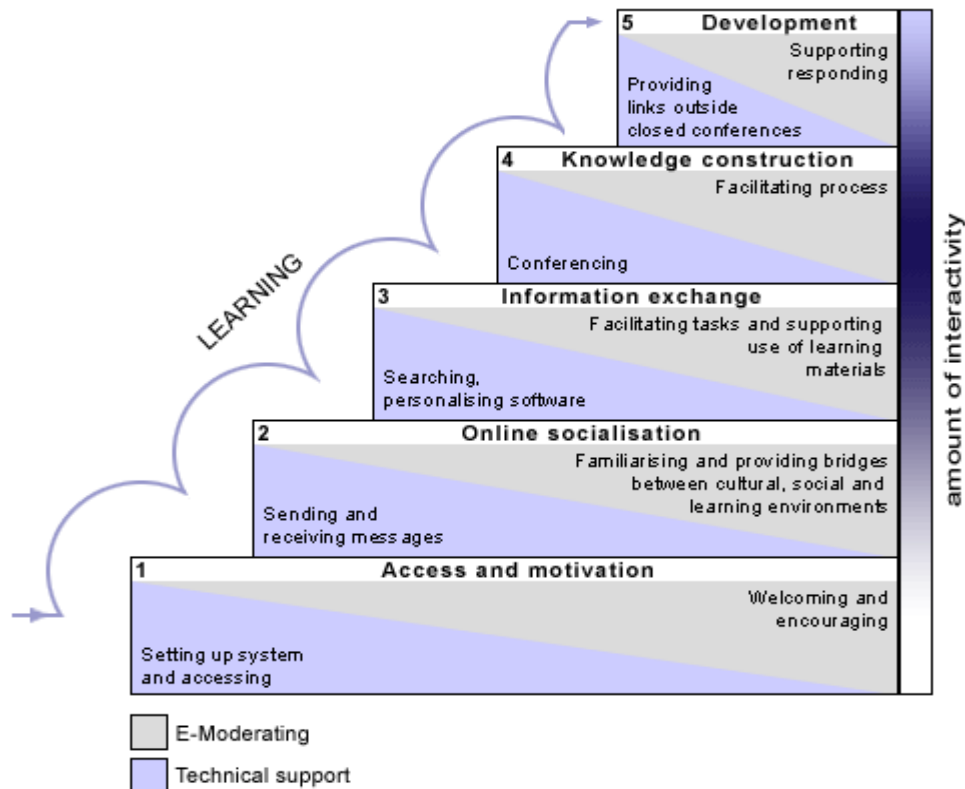


Figure 3.3: The Five Stage Model by Gilly Salmon (2004)

Sait, Al-Tawil, Ali and Khan (2003) conducted a study on the use and effect of the Internet on lecturers and students in Saudi Arabia and found that most lecturers realize the potential of the Internet for education and understand the effort involved in effectively utilizing this valuable resource. The results of the study assert that training programs are essential. The majority of lecturers believe that Internet resources have helped improve curricula and teaching methods. In addition, the study urges that new technological methods be supplemental to traditional classroom teaching and not a

replacement. This indicates a resistance to the decrease of face-to-face instruction. However, investigating lecturers' experiences of blended learning environment might provide different results. This current study has the potential to demonstrate whether the implementation of blended learning will be faced by lecturers' resistance or not.

Alghazo (2006) emphasizes the need for “planning professional development programs for faculty members that address critical issues such as the design of web components, their content, and the style of communication among students and between students and instructors.” (p. 628). In addition, Tabor (2007) argues about the benefits for lecturers participating in a blended course before developing one in order that they can experience the student's view of the online environment, and share the challenges. In particular, the decisions made in the redesign process of blended courses are critical to the effect the course will have on the learner but, with such a wide variety of delivery mediums, choosing the best combination of technology is a daunting task that not many lecturers are eager to approach. In addition, the lecturers who aim to implement blended courses may not have enough knowledge about how to ensure their effectiveness.

Dziuban *et al.* (2006) indicate that support for course redesign involves assistance in determining the course materials which can best be achieved using online activities. In addition, lecturers need more support for acquiring new teaching skills that enable them to encourage online interaction and manage online learning challenges faced by their students (Aycock *et al.*, 2002). Lecturer development programs should be offered to overcome these support issues. Such programs have to provide lecturers with the opportunity to learn how to redesign their courses, and use technology for effective teaching (Garnham & Kaleta, 2002). For example, the lecturers of the University of Central Florida (Dziuban & Moskal, 2001), the University of Wisconsin-Milwaukee

(Aycock *et al.*, 2002) and Rochester Institute of Technology (RIT) are offered professional development programs for the development phase of a blended learning course. As Vaughan (2007) suggests, “Without adequate preparation, most faculty will simply replicate their traditional class sections and the benefits, resulting from a blended course, will not be achieved.” (p.12). The lecturer experience in teaching blended courses is influenced by the offered preparation from their institution, therefore exploring Saudi lecturers’ perceptions will provide an insight into whether they have been offered the appropriate infrastructure and support.

### **3.6.2 Quality of Learning Experience**

Most universities have a strategy for the students’ learning experiences that aims to enhance the students’ opportunities for successful learning, and the *attractiveness* of the university as measured by traditional performance indicators (Wend, 2006). Today, students’ perceptions are being used as the principal data source for quality assurance processes associated with teaching and as a measure of program success. According to Oliver and Herrington (2003), many institutions use student feedback as a prime quality indicator.

Thus, exploring the perceptions of the students and their attitudes toward blended learning strategy is sought in order to ensure quality of the learning experience. Recently, evaluation of undergraduate courses through student surveys has been utilized in some Saudi universities. However, blended learning has not been evaluated yet due to its new emergence. Certainly, decision makers in Saudi Universities will need to understand the factors that influence the students’ learning experience of their blended courses and act upon them. Supporting this view, Choy and Troudi (2006) point out that positive attitudes and better overall motivation generally result in better proficiency.

Sharpe and Benfield (2005) contend that asking students about their experiences of e-learning presents surprising and frequently contradictory results. A study by Moore and Aspden (2004) investigated students' experience of e-learning where the researchers' long-held assumptions were refuted. Students who were expected to object to the blended learning experience surprisingly raised none of the expected issues. Similar to other contexts, the blended learning experience in Saudi Arabia may raise unexpected issues. This proves the importance of listening to students and more significantly, avoiding teacher-centred assumptions about their experience.

The quality of the learning experience is related to the roles of institutions, lecturers, and students involved in the process of learning. According to Wend (2006), the student learning experience is interpreted as the variety of experiences that are within the concern of university responsibilities wherein students perceive and interact which affect their learning opportunities. Van Assche and Vuorikari (2006) point out that the learning experience not only depends on the quality of the learning resources, but also on the effectiveness of their delivery and usability. Lionarakis and Parademetriou (2003) investigated the difference between the quality of the learning experience in open and distance education versus traditional education. The results indicate that the positive and supportive role of the lecturer is recognized in both systems with no statistical differentiation, but the distance education (fully online learning) has more emphasis on the administrative support given by the institutions as well as the quality of the tutor. Also, in fully online learning, assignments are considered a fundamental learning tool.

Although there is a move towards addressing the quality of the learning experience, Garrison and Vaughan (2008) state that "yet there is increasing dissatisfaction among

faculty, students, and society with the quality of the learning experience” (p. 10). The quality of the learning experience depends on various elements of the learning process. In order to provide quality experiences for learners, some important elements have to be managed, such as: technology, the structure of the course, the lecturer, technical support, assignments (Lionarakis & Parademetriou, 2003), student engagement (Oliver & Herrington, 2003) and learning flexibility. With respect to the online learner, Oliver and Herrington (2003) assert the significant impact of students’ technical skills on their learning experiences. They assert that an independent online learner requires a relatively high level of technical skills to cope with any anticipated technical problems in the learning experience. At the same time, lecturers need to understand the role of online facilitation, and to consider the importance of student-lecturer interaction with each student. By exploring the perceptions of students and lecturers, institutions can evaluate the quality of learning experience. Thus, this study will reveal whether the above elements, including technical support, engagement and flexibility were managed or became a challenge for blended learning implementation in Saudi University.

### **3.7 Blended Learning Design**

Blended courses are not traditional courses with add-on technology. They are built with a transformative redesign process (Stacey & Gerbic, 2008). Ross and Gage (2006) state that differentiation in the learning process would not depend on *if* they blend but rather by *how* they blend. *How to blend?* is the crucial question that has been considered by researchers and to which there may be a vast number of possible answers. Graham (2006) indicates that there is no one design solution for blended learning but there are a large number of examples of successful blends across many contexts. Bleed (2001) argues that the blended model should incorporate creative uses of technology,

architecture, and people in a different way other than the distance learning model where the students and the lecturers are physically separated:

*I am also not proposing the model in which we simply “bolt” technology onto a traditional course—that is, use technology add-ons to a course to teach a difficult concept or add supplemental information. What I am proposing is a drastic change in courses and facilities on campuses. The model is 50 percent virtual instruction and 50 percent redesigned physical campus spaces or, in other words, half “bricks” and half “clicks.” The advantage of this model is that it gives us new designs for the new economy for new kinds of students. (p. 18)*

According to Garrison and Vaughan (2008), “Blended learning is a simple concept but it is challenging in practice. In application it becomes a complex phenomenon and presents challenges in terms of disciplinary content, levels of instruction, and course goals” (p. 30). As Graham (2006) indicates, “it is rarely acknowledged that a blended learning environment can also mix the least effective elements of both worlds if it is not designed well.” (p. 8). Although the flexibility of blended learning addresses varying design needs, blended learning does not have one course design that can be followed; which is both a strength and a challenge (Owston *et al*, 2006).

The decisions made in the design process are critical to the effect the course will have on the learner. In addition, the vast resources of learning activities that combine online and face-to-face learning should be considered within the overall design of the curriculum (Huang & Zhou, 2006). Knowing how to design the right mix is one of the challenges lecturers face when utilizing blended learning. This is due to the variety of combinations of technology and possibly the lack of patterns to follow for that particular mix.

According to Garrison and Kanuka (2004), there is a shortage of blended learning designs that can be followed by lecturers. They state that “[there] is considerable

complexity in its implementation with the challenge of virtually limitless design possibilities and applicability to so many contexts” (p. 96). The importance of course redesign is asserted by Sharpe *et al.* (2006) and Littlejohn and Pegler (2007). Tabor (2007) points out that “The [blended] hybrid model is not a one-size-fits-all solution, but another valid option in the modern learning environment that must continually evolve to meet learning needs.” (p. 56). Blended learning designs differ according to the objectives of the courses, the elements that are blended and the percentage of these elements in the course credit. Selecting the right elements that cope with the objectives of a blended course is a crucial step in the design process. As Garrison and Kanuka (2004) state, “blended learning is inherently about rethinking and redesigning the teaching and learning relationship.” (p. 99).

The percentage of the online learning has to assure the sustainability of the best of the two worlds. One suggestion is that 25-50% of web-based instruction of the course credit can be stipulated in order to retain the advantages of face-to-face instruction. The impact of the percentage of blended elements in the course credit on student satisfaction has been demonstrated in several studies. For example, Danchak and Huguet (2004) explored transforming a traditional course into an online course gradually and concluded that students did not appreciate the lecturer’s efforts in organizing the materials because they expected a certain amount of lecturer presence. Another study conducted by Reichlmayr (2005) about students and blended learning techniques found that 72% of the students liked having part of the course online and part of it in the classroom (17% disagree, 11% neutral).

Moreover, the University of Phoenix offers courses called FlexNet where classes meet one-third of the time in a face-to-face format and two-thirds in an online format. As a

result, the face-to-face class time was then transformed into an active discussion session rather than a lecture (Cottrell & Robison, 2003). A different design has been implemented by Brigham Young University, where freshman English students are required to meet face-to-face once a week instead of three times a week. In Brigham Young University, students enrolled in Introductory Accounting watch online videos of live class lectures including explanations of difficult concepts. In this design, online modules provide writing instruction and teaching assistants use online and face-to-face contact to provide feedback and guidance on writing (Waddoups, Hatch, & Bution, 2003). Another example is the upper-level undergraduate course *Site and the Public Space* at the University of Wisconsin-Milwaukee which was redesigned by the lecturer Amy Mangrich (Aycock, Mangrich, Joosten, Russell & Bergtrom, 2009) to be a blended course. The design includes face-to-face assignments, online work and off-campus face-to-face work in which students were required to meet for the collaborative creation of a public artwork located in a municipal building.

King Khalid University in Saudi Arabia, in the early stages of implementing blended courses, enabled their lecturers to coordinate with their College administration on the percentage of online learning in blended courses. At the same time, King Saud University, which is the context of this study, decided to redesign the courses according to a fixed percentage for all courses. Clearly, this approach limits the flexibility that blended learning offers but it could decrease the influence of inexperienced lecturers in regard to course redesign. Further explanation of the design of blended courses of this study is discussed in Chapter four.

Furthermore, selecting learning activities depends on the course content and has to involve the course lecturer and the instructional designer. Instructional design is defined



as “the process of deciding what methods of instruction are best for bringing about desired changes in student knowledge and skills for a specific course content and specific student population” (Reigeluth, 1983, p. 7). Blended learning requires an intentional approach to instructional design so that the program is blended in design, not just in delivery. Usually, institutions endeavouring to implement blended learning offer instructional design support for course redesign. Bates (2005, cited in Kanuka, 2006) argues that facilitation of effective online learning is highly unlikely without a team of instructional design experts. For example, the University of Illinois at Chicago has an Instructional Design Team, consisting of a Senior Instructional Designer, a Technologist and an Editor, to assist the lecturers to identify the best technology solutions for developing and designing blended courses. There have been some contributions from Littlejohn and Pegler (2007) who developed the LD\_lite tool to help lecturers think through “how to blend media, activities and e-tools across environments and give timely feedback to students” (p. 82). However, this tool does not provide a common design framework for blended courses. If there were established design frameworks that could be used as guidelines, it would greatly simplify the task of implementing blended learning.

Essentially, studies indicate that blended learning has added value only when facilitated by educators with high interpersonal skills, and accompanied by reliable, user-friendly technology (Derntl & Motschnig-Pitrik, 2005). Online course materials can be text, audio or video. Audio and video files usually include online lectures, which are powerful tools for online learning. Hladka, Liska and Matyska (2004) contend that recorded lectures may play a very important role in the educational process and “they are a right step towards the personalized teaching process achievable with very limited additional teachers’ burden” (p. 8). Hladka *et al.* point out one advantage of recorded

lectures for both lecturer and students is that students can easily review difficult parts and “re-play” the lecture without overloading the lecturer with requests for consultations. Moreover, the greatest advantage is that recorded lectures may be delivered by just a smaller number of [the] best lecturers and virtualized to a large number of students (Hladka *et al.*, 2004; Abas & Mohd Khalid, 2006). Godsk (2006) recommends having an easy-to-use authoring tool for recorded lectures to avoid the inflexibility and limitation in the e-learning systems that could overshadow the knowledge, pedagogical, and communicative skills of the teacher. Godsk’s initial experiments show that it is feasible to transform PowerPoint-based university lectures into problem-oriented, interactive (Flash-based) learning programs with tools such as Macromedia Captivate with consideration of a number of educational, technical, and organizational issues. Such software allows students to access online lectures anytime and anywhere with nothing more than a web browser. In addition, recording lectures would not require lecturers to change instruction or learn new technologies. However, Saudi culture inhibits the use of the female voice in recording. The available recorded lectures of the blended courses are male voices only. It is noteworthy that female lecturers and male lecturers do not have the opportunity to discuss the recorded course contents due to the gender segregation. Consequently, the findings of this study have the potential to reveal how Saudi culture could influence lecturer views of blended courses and particularly the use of recorded lectures.

### **3.8 Blended Learning Pedagogies**

Pedagogy can be defined as lecturers’ teaching methods which are based on learning theories. According to Beetham and Sharpe (2007), pedagogy “is centrally concerned with how we understand practice (the evidence base for theory), and how we apply that theoretical understanding in practice once again.” (p. 3). They indicate that the term

*pedagogy* embraces a dialogue between theory and practice of teaching and learning with a recent focus on the need for rethinking pedagogy to suit the digital age.

However, pedagogy in Higher Education and its relation to e-learning has been given little consideration. Stiles (2006, p. 8, cited in Jones and Lau (2009, p. 42) argues that pedagogy has never been Higher Education's priority. He suggests "...its priority has always been and continues to be, research and the subject discipline... pedagogy has traditionally barely figured in planning or professional development in HE." Jones and Lau add that the emergence of the first generation of e-learning triggered the need for pedagogical discussion in Higher Education and the shift from a conventional type of education.

Supporting this view, Weller (2002, cited in Jones and Lau, 2009) states that a strong pedagogical approach, which involves more reflection than is often given in-class lectures, is a condition for successful online courses. In addition, Alonso, López, Manrique and Viñes (2005) state that "There are no guidelines for analysing, designing, developing, supplying, and managing e-learning materials pedagogically as e-learning is a new phenomenon." (p. 218). According to Garrison and Vaughan (2008):

*Although the concept of blended learning may be intuitively apparent and simple, the practical application is more complex. Blended learning is not an addition that simply builds another expensive educational layer. It represents a restructuring of class contact hours with the goal to enhance engagement and to extend access to Internet-based learning opportunities.*  
(p. 6)

In respect to the blended learning environment, the E-College Wales project which was led by the University of Glamorgan in collaboration with six of its Education Colleges across Wales raised the pedagogical discussion and found that, "e-learning was technologically focused and was given little, if any pedagogical consideration" (Jones & Lau, 2009, p. 42). The project shows that consideration of pedagogy has started

recently. In Saudi Arabia, with the recent adoption of e-learning in universities, there is a potential to address pedagogical issues at the early stages of implementation. Specifically, challenges of pedagogy in blended learning can be identified through exploring lecturers' and students' experiences.

Significantly, Garrison and Vaughan (2008) assert that integrating face-to-face and online learning is a key assumption of blended learning design. Implementing blended courses requires integrating existing styles of teaching with online teaching methods, which must take into consideration pedagogical and technological features to form an effective education. With a range of in-class and online teaching methods, there is no one right method for a specific class and its content. The selection of the method has to be based on various pedagogical factors such as the course objectives, the teaching philosophy of the lecturer and the expected outcomes for the learners. Wang and Woo (2007) state that e-learning is "a growing area that has attracted many educators' efforts in recent years" (p. 148), however, they assert that the potential benefits of ICT in teaching and learning cannot be attained unless accompanied by effective pedagogy. "It is the instructional strategy, not the technology that influences the quality of learning" (Ally, 2008, p. 16). The online teaching strategy is called electronic pedagogy (e-pedagogy). E-pedagogy has become among the most important aspects of integrating ICT into learning. Cox, Webb, Abbot, Blakeley, Beauchamp and Rhodes (2003) assert that effective use of ICT involves significant time from lecturers to develop their pedagogy, as well as their ICT skills. Lecturers are required to create applications for an interactive and engaging environment using ICT (UNESCO, 2002). Jones and Jones (2004) note that e-learning was described by tutors as a more difficult and challenging teaching environment than face-to-face teaching. They state that tools and approaches used in the classroom are not always be effective in an online environment. Such

arguments raise the need for investigating lecturers' views of the challenges of teaching blended courses at Saudi Universities. In addition, the perceptions of the students would further highlight any challenges associated with the teaching strategies. The findings of this study therefore have the potential to highlight the pedagogical issues associated with blended courses in Saudi Arabia. Garrison and Vaughan (2008) state that blended learning is a new educational paradigm that integrates the strengths of face-to-face and online learning which "offers the possibility of recapturing the traditional values of higher education while meeting the demands and needs of the twenty-first century" (p. 4). There has been a high demand for the development of pedagogy to meet the expectations of the new generation.

Students of today expect that ICT will enable them to be collaborators and creators, not just recipients of information. ICT provides a rich collaborative environment (Cox *et al.*, 2003) enabling the learner to consider diverse perspectives when addressing issues and solving problems. Wegerif (2007) points out that the use of ICT in learning, particularly using computer-supported collaborative learning, has the potential to promote dialogue. He emphasizes the importance of dialogue and how dialogic space in asynchronous environments can afford reflection. Wegerif (2007) summarizes the strengths of ICT in education as:

- *Provisionality: the ability to change texts and other outputs with minimum cost.*
- *Interactivity: the capacity for feedback and response.*
- *Capacity and range: the capacity to handle large amounts of information and overcome barriers of distance.*
- *Speed and automatic functions: enabling routine tasks to automated*
- *Support for multi-modal communication. (p. 180)*

Wegerif argues for *dialogic theory* in which dialogue is taught as an end in itself to promote general learning skills, especially the skills of creativity and learning to learn.

Moreover, utilizing collaborative learning would increase student satisfaction as suggested by Jung, Choi, Lim, and Leem (2002, cited in So & Brush, 2008). Significantly, the blend of online activities with face-to-face activities requires more time from students working on online activities and more time from lecturers for reviewing and evaluating their students work and less time lecturing. Successful transition to this new learning paradigm cannot be achieved without lecturers' guidance and support.

Blended learning involves various learning activities which makes the integration between the learning components a challenge for lecturers. Scaffolding has the potential to be an effective teaching strategy for this new learning environment. Scaffolding originates from Vygotsky's socio-cultural theory and his concept of the Zone of Proximal Development (ZPD), which is defined as the distance between what a student can do with and without help (Verenikina, 2008). Vygotsky (1978) linked cognitive development with social interaction in his definition of ZPD, which is "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers." (p. 86)

Scaffolding is identified by Gordon Wells (1999, p. 127, cited in Verenikina, 2008, p. 163) as "a way of operationalising Vygotsky's (1987) concept of working in the zone of proximal development". Verenikina exemplifies the three important features that were identified as scaffolding characteristics: "1) the essentially dialogic nature of the discourse in which knowledge is co-constructed; 2) the significance of the kind of activity in which knowing is embedded and 3) the role of artefacts that mediate

knowing” (p.163). According to McKenzie (1999), scaffolding provides clear direction by developing step by step instruction for learners to clarify expectations and reduce their confusion.

Through scaffolding, students understand why they do the activity and the expectations of this work. Expectations are clarified by providing examples, rubrics, and standards of excellence. Clearly, comprehensive course outlines, including an explanation of the blended format and outcomes, must be stipulated in blended learning. In particular, Garrison and Vaughan (2008) and Aycock *et al.* (2009) indicate that rubrics are a significant tool for blended courses. One example of scaffolding strategy using web-resources is WebQuest which was introduced by Bernie Dodge in 1995 as “an inquiry oriented activity in which some or all of the information that learners interact with comes from resources on the Internet”. WebQuest has the potential to promote higher-order thinking and inquiry skills (Wegerif, 2007). However, the current research does not reveal that WebQuest will lead to improved achievement but could facilitate an increase in motivation as a result of the integration of technology into teaching and learning (Abbit & Ophus, 2008).

Moreover, students’ engagement is influenced by the instructional support from lecturers (Christenson & Thurlow, 2004 cited in Furlong & Christenson, 2008), thus scaffolding strategies can have an impact on students’ engagement. Using effective pedagogy affects student motivation and engagement. Oliver (2005) states that blended learning offers opportunities to deliver on a number of the four principles of high quality learning activities identified by Boud and Prosser (2002): engagement of learners, acknowledgement of context, challenge for learners and the involvement of practice. Supporting this view, Aycock *et al.* (2009) state that increasing students’

engagement is among the benefits of blended teaching and learning. Student engagement could be understood as the time and effort that a student spends on performing learning activities either in or out of class (Kuh, 2001, cited in Oncu, 2007). Another definition for student engagement is that it is “a concept that requires psychological connections within the academic environment (e.g., positive relationships between adults and students and among peers) in addition to active student behaviour (e.g., attendance, effort, pro-social behaviour)” (Furlong & Christenson, 2008, p. 365). According to Garrison and Vaughan (2008), “The foreground of the educational experience is engagement-interaction, collaboration, and reflection” (p. 16). Weaver, Spratt and Nair (2008) assert that Higher Education should engage learners as active participants in their learning and clarify that by saying:

*Achieving this means offering learners opportunities for interaction in ways that can promote change and growth in the learner's conception of knowledge. Such pedagogies aim to encourage learners to become autonomous lifelong learners, capable of problem solving and critical thinking, and to move them from being passive recipients of information and knowledge to being active, enthusiastic learners and knowledge creators. Moreover, tertiary pedagogy is concerned with building meaningful learning relationships between learners and teachers, and learners and their peers. It involves encouraging collaboration in learning as well as cooperation in learning; the appropriation of technology for teaching suggests great opportunities for the promotion of innovative and interactive quality e-learning environments. (p. 38)*

Engagement integrates how students behave, feel and think. A major review of over 160 studies distinguished three types of engagement: behavioural, emotional and cognitive engagement (Fredericks, Blumenfeld & Paris, 2004). The definitions of these three types are summarized by Fredricks *et al.*:

*Behavioural engagement draws on the idea of participation; it includes involvement in academic and social or extracurricular activities and is considered crucial for achieving positive academic outcomes and preventing dropping out. Emotional engagement encompasses positive and negative reactions to teachers, classmates, academics, and school and is*



*presumed to create ties to an institution and influence willingness to do the work. Finally, cognitive engagement draws on the idea of investment; it incorporates thoughtfulness and willingness to exert the effort necessary to comprehend complex ideas and master difficult skills. (p. 60)*

Understanding the essential aspects of student engagement influences the teaching strategies in blended learning environment. Lecturers need to consider learning goals and outcomes, as well as appropriate activities to facilitate student engagement. Lack of guidance and scaffolding may result in a lower level of cognitive engagement in online discussion (Zhu, 2006). Oncu (2007) states that student engagement is impacted positively by the instructional practices of a student-centred model. He also contends that active learning is reliant upon students being more actively involved in educationally purposeful activities, and the more they collaborate with their peers the more they become successful. Supporting this view, Zhu (2006) emphasizes the factors that facilitate student engagement, such as designing appropriate activities and useful strategies that help students to move between levels of cognitive engagement.

Cox *et al.* (2003) and Hennessy, Deaney and Ruthven (2003) stress that lecturers need to employ proactive and responsive strategies in order to support and guide learning; maintain a focus on the subject; monitor progress; and encourage reflection and analysis. Lecturers need to consider the selection of learning materials, activities and learning objectives.

### ***The Lecturer's Role***

The new role of the lecturer in a student-centred model requires new knowledge and skills, unlike a teacher-centred model where lecturers direct learning by presenting information to students and control their access to the information. Using the student-centred model, lecturers facilitate learning by helping students to access and process

information and take greater responsibility for their own learning as they search, find, create, and share their knowledge with others. According to Alonso *et al.* (2005), “The conventional education system has focused on transmitting the teacher’s knowledge (what the teacher knows, which is not necessarily what he or she should know) to students” (p. 217). Face-to-face instruction is usually provided through various teaching methods such as lectures, discussions, worksheets/surveys, and guest speakers. Specifically, lectures are mainly used in university classes to teach large groups and in which course material is presented in a direct, logical manner with lecturers providing a clear introduction, content and summary, including examples. To illustrate, Graham (2006) states that:

*It is not secret that most current teaching and learning practice in both higher education and corporate training settings is still focused on transmissive rather than interactive strategies. In higher education, 83% of instructors use the lecture as the predominant teaching strategy (U.S. Department of Education, 2001). (p. 8)*

The lecturing method requires the lecturers to have proficient oral skills with little interaction with students. According to Bonwell (1996), lecturing enables the lecturer to present large amounts of information to large audiences with a maximum control of learning experience. However, during lectures limited feedback can be received about the effectiveness of students’ learning. In lectures, communication is one-way and students are often passive with no indication of whether they are intellectually engaged or not with the material. Bonwell points out that information tends to be forgotten quickly when students are passive and that lectures are not suited for teaching higher orders of thinking such as application, analysis, synthesis, or evaluation. Although lecturing appeals to those who learn by listening, it is a disadvantage for students who have other learning styles. Thus, it is essential to offer students different activities to meet their various learning needs.

Student-centred instruction not only requires lecturing, designing assignments and tests and grading as traditional instruction does, but it also enables students to become independent learners and learn from one another (Felder & Brent, 1996). Felder and Brent indicate that student-centred instruction is:

*...a broad approach that includes such techniques as substituting active learning experiences for lectures, holding students responsible for material that has not been explicitly discussed in class, assigning open-ended problems and problems requiring critical or creative thinking that cannot be solved by following text examples, involving students in simulations and role-plays, assigning a variety of unconventional writing exercises, and using self-paced and/or cooperative (team-based) learning. (p. 43)*

According to Felder and Brent (2009), pedagogical experts are calling for improvements in university teaching through using active learning, which can be defined as anything course-related that involves all students in activities other than simply watching, listening and taking notes. Active learning was found to increase both student motivation and engagement and consequently their achievements (Gauci, Dantas, Williams & Kemm, 2009). Significantly, Felder and Brent (2009) indicate that the idea of active learning in-class is not to throw out lecturing and make the whole time spent in class active learning. Nevertheless, active learning techniques allow lecturers to pause a lecture and initiate short activities in order to enable students to reflect on their learning (Silberman, 1996).

Some examples of in-class active learning techniques are: think-pair-share, collaborative learning groups, analysis or reactions to videos, student-led review sessions, games, and student debates. For example, think-pair-share enables each pair (two students) in class to solve a problem by thinking for couple minutes then

discussing their views together before sharing their ideas with the whole class. Some activities require student preparation, such as the collaborative learning groups. Other activities require more preparation from the lecturer, such as the activity of the reactions to video.

The required support from the lecturer in active learning differs according to the type of selected technique. However, many active learning strategies can be used in face-to-face classes as well as in an online environment. The shift to student-centred and active learning strategies has been under investigation to determine their impacts on the learning process. For example Armbruster, Patel, Johnson and Weiss (2009) examined the use of active learning and student-centred pedagogies as a result of receiving several perceptions of deficiencies common to traditional lecture-based courses. The common concern shared by multiple faculties was poor student attitudes, with students' commenting on course evaluations that lectures were "boring". The authors state that negative student attitudes were also indicated by poor attendance, limited participation in class and sub-optimal student performance. Armbruster *et al.* (2009) concluded that "incorporating active learning and student-centred pedagogy into what was previously a traditional lecture-based [course]...led to sustainable improvements in student attitudes and performance" (p. 212). Furthermore, they report that weekly online quizzes were used in order to encourage students to keep up with the course materials and provide them with regular feedback on their understanding of the materials. The online quizzes were appreciated by the students and identified as strategies for enhancing their own learning and encouraging independent learning.

Moreover, Felder and Brent (1996) point out that some of the common lecturers concerns about student-centred instructional methods include spending time on learning

activities which results in less time for following the syllabus. They also emphasize that shifting to a student-centred strategy requires preparation for some students' negative reactions as some students may not accept this shift.

According to Oliver, Herrington and Reeves (2006), blended learning offers lecturers the opportunity to use learning settings based on student-centred strategies. As discussed in Chapter two, Saudi lecturers are used to teacher-centred strategies in education. This study will show whether or not Saudi lecturers perceive teaching blended courses as an opportunity to facilitate student-centred strategies. Graham (2006) points out that some researchers have seen blended learning approaches facilitate active learning and student-centred strategies. Specifically, incorporating ICT into learning processes has encouraged teaching strategies that support the shift to a student-centred learning environment. With the innovations in web-based instruction, the role of the lecturer is changing from that of a knowledge transmitter to a learning facilitator and knowledge guide. One of the common tools for facilitating engagement is online discussion as outlined below.

### ***Online Discussion***

A significant tool of web-based instruction is online discussion, which is a discussion board where messages are posted online and participants can view messages and respond to them in an asynchronous manner. Utilizing online discussion in blended learning allows students to interact and collaborate with their peers at a distance to share and reflect on their knowledge. Owston *et al.* (2006) assert the important role of interaction in quality learning, stating that “interaction is the key element and quality standard of a quality learning experience in higher education.” (p. 339).

Zhu (2006) indicates that the characteristics of online discussion and how lecturers' understanding and utilizing factors such as presence, role, discussion design and questions, can encourage interaction and cognitive engagement, and consequently student learning and performance. Zhu states that:

*Advances in technology have enhanced communications between students and the instructor, and among students themselves. Many college instructors, due to easy access to communication technology tools, have moved or extended part of a classroom discussion to an online forum, where students and the instructor continue their discussion on course-related topics. (p. 451)*

Zhu also points out the unique role that online discussion plays in face-to-face and online learning in facilitating interaction and student cognitive engagement, which is critical for constructing knowledge. Moreover, the author emphasizes that online class discussion and any other learning activities cannot be effective without facilitation or consideration of the learning outcome and environment.

Furthermore, Jones and Lau (2009) state that online discussions, collaborative online activities and interactive course materials are a means of promoting constructivism in online pedagogy. Also Raleigh (2000) notes that online discussion improves critical thinking and increases confidence in peer working abilities since the student must compare, contrast, evaluate and analyze before contributing. Critical thinking exercised in online discussions gives students an opportunity to analyze their observations and provide reflective, thoughtful responses to posed questions and offer constructive feedback.

Students who do not usually contribute during class have an opportunity to contribute confidentially using online discussion, posting questions and updating each other without the constraints of date and time. In addition, online discussion is one of the

means for lecturers to increase interaction, reflection and collaboration. However, as Saudi Universities are new to the use of online discussion in the learning environment, this study has the potential to examine whether or not the advantages of online discussion, stated in the literature, are experienced by Saudi students and lecturers. According to Salter, Nanlohy and Hansen (2001), online discussion provides opportunities for promoting collaborative learning and enhancing communication skills. By collaboration, they mean *sharing experience*, hence, online discussion provides collaboration where students learn from the ideas and mistakes of others and share their experiences to create a rich knowledge resource.

It is noteworthy that some students prefer collaborative online discussions with peers over tutor led face-to-face tutorials, but they express concern in regard to the time needed to contribute effectively to online discussions (Sweeney, O'Donoghue & Whitehead, 2004). Online discussions can effectively impact learning when students respond to peers' questions, share new ideas, receive feedback, and when lecturers provide regular feedback. However, Salter *et al.* (2001) assert that establishing online discussions does not necessarily guarantee successful learning. For example, Vonderwell, Liang and Alderman (2007) assert the importance of good choices of discussion topics and how topic selection should not lead to repetition of the same answer in the discussion. Moreover, using online discussion for assessment needs to be decided by the course lecturer carefully. According to Carman (2005), online assessment is considered as:

*One of the most critical ingredients of blended learning, for two reasons: 1) It enables learners to test out content they already know, fine-tuning their own blended learning experience, and 2) It measures the effectiveness of all other learning modalities and events. (p. 5)*

Therefore, effective use of online discussions provides a sign of efficient blended learning. Several studies have proved the effectiveness of online discussion in enhancing participation and collaboration. However, Alebaikan and Troudi's study (2010b) shows that poor e-pedagogy was a significant challenge facing the use of online discussion as an assessment tool in the Saudi context. Utilizing asynchronous online discussion as an evaluated tool for students' participation requires more consideration as to its structure and moderation. Another issue raised by Gulati (2008, cited in Jones & Lau, 2009) concerns making online participation compulsory and thereby punishing students who prefer to *lurk*. Jones and Lau (2009) report that many students in the E-College Wales project requested more choices in learning other than compulsory online participation.

### ***Quality of Feedback***

At this point, it is worthwhile highlighting the crucial aspect of providing feedback in the online learning environment. Feedback to online learners is essential because learners need to know if they have correctly understood the material being presented (Conole & Oliver, 2006) and because it will diminish learners' isolation in an e-learning environment. According to Payne, Brinkman and Wilson (2007), e-learning has become an aspect of independent learning and student-centred learning and needs to maintain constructive and appropriate feedback, which is a challenge. Students expected to have considerable responses from the tutor and were frustrated without it (Sweeney *et al.*, 2004; So & Brush, 2008). This supports the findings of Stacey and Gerbic (2008) who found that providing feedback to students about their participation in the online discussion during in-class time is a very effective process in blended courses and endorsed its significance for learning. Thus, exploring Saudi students' experience in blended courses has the opportunity to reveal whether they receive appropriate feedback



from their lecturers. As feedback from lecturers facilitates student engagement in the learning process, certainly investigating students' satisfaction of received feedback would facilitate the enhancement of the blended learning environment in Saudi universities.

The method of providing feedback to online learners can be either automated or through the postings of lecturers and peers. Automated feedback helps to ensure a more engaging online experience (Conole & Oliver, 2006) and can be provided via online quizzes or simulation software. Lecturers may provide feedback in an e-learning environment as a response to electronic assignments, or in response to students' questions posted in the course forum or via emails. Payne *et al.* (2007) assert that learning is influenced by the style of feedback given to students in e-learning environments. Although automated feedback provides an instant response which increases interactivity and motivation, it does not assess essays and longer pieces of writing as accurately as do lecturers. A lecturers' feedback is essential to assess creativity and originality. In general, lecturer feedback in blended courses has to be provided through the course forum and emails, as well as in-class time. Students need to be encouraged to use the online discussions and emails to post any questions or discussions that assist in increasing their understanding and interactivity.

The integration of online and face-to-face activities is emphasized in the Lecturer Development Workshop prepared by Aycock *et al.* (2009) as a result of the presenters' experience in teaching blended courses. They raised a discussion as to how the lecturer has to decide on the integration between the face-to-face and time out of class components as a single course. From reflecting on their experience with blended courses, Aycock *et al.* (2009) present ten questions for achieving a careful pedagogical

blended course redesign. In one of these questions, they argue for the integration of online and face-to-face activities in order to develop a cohesive course. The question highlights the potential of integrating the two activities through feedback, “How will the face-to-face and time out of class components be integrated into a single course? In other words, how will the work done in each component feed back into and support the other?” (p. 41).

The components of the online and face-to-face modes should support each other. Stacey and Gerbic (2008) state that an integration of the two modes can be effective by “providing feedback on the quality of the online discussion in the face-to-face class and activities which prepared and skilled students for their online activities. The teacher’s attention in class to the new virtual environment legitimised it as part of the course and endorsed its importance for learning.” (p. 966). In conclusion, Alonso *et al.*, (2005) point out that pedagogical problems with blended learning require more effort to be resolved. So and Brush (2008) contend that poor integration of learning components raise a crucial problem in blended learning which can increase irrelevant or ineffective cognitive load in the learning processes. So and Brush conclude that “simply turning classroom courses into blended formats do not necessarily provide students with more interactive and flexible learning experiences. More careful analysis of learners, contexts, and technologies are needed.” (p. 322).

### **3.9 Ethical Consideration**

The link between education and ethics is very strong as ethic is an essential part of the teaching and learning process. However, most institutions give more consideration to research ethics and less attention to teaching and learning ethics. With the evolution of web-based education, ethical issues are commonly linked to online learning. It is

worthwhile pointing out that education ethics have to be addressed in web-based education, as well as in traditional education.

In general, teaching and learning ethics have to involve honesty, fairness, respect for persons and confidentiality. Institutions include ethical policy in their code of conduct to guide their students and lecturers on what is appropriate and what is inappropriate behaviour in the learning and teaching environment. Saudi educational policy includes ethical statements based on Islamic principles, which influence professional teaching norms in public and Higher Education. The ethical statements emphasize respecting knowledge and valuing teaching very highly as a profession. This is part of the Islamic view that all of the Prophets were teachers, therefore teaching as a profession is held in high esteem. In addition, teachers are to be good examples, show kindness to students, be fair in regulation and assessments, and respect students' rights.

It is necessary to be aware of the experience of students and lecturers of blended courses in respect to ethical challenges in the digital era. The ethics of online teaching has an impact on the quality of data, privacy and intellectual property (Jefferies & Stahl, 2005). Therefore, this study has the potential to highlight ethical challenges associated with blended courses and how lecturers and students perceive them within the Saudi culture. A blended learning environment entails particular consideration of the ethics of online learning. Jefferies and Stahl (2005) state that:

*...it is clear that there are significant ethical risks in designing and developing e-teaching and e-learning. This then means that teachers using technology within a campus-based, blended learning context need to carefully examine what tools are to be used (technological issues), why the selected tools are being used (educational rationale) and how they are being used (ethical issues) in developing their pedagogical strategy. (p. 9)*

For example, online teaching and learning has to consider the role of ethics in assessment. According to Somekh (2007), computer-assisted assessment has become preferred by lecturers to address the increase in the assessment load, which has resulted from the worsening staff-student ratio. However, he argues that cheating could occur when students have the Internet resources while doing their online exams. This challenge was discussed in a workshop held at the National Centre for E-Learning in Riyadh in 2008. One of the participants, a university lecturer, presented his experience in addressing this challenge by holding the online quizzes in the computer laboratory and monitoring them physically. In addition to physical monitoring, technology could be involved in preventing online cheating by adding a feature to online quiz webpages that disallows browsing other windows while the exam is running.

In addition, Littlejohn and Pegler (2007) report that “ensuring an appropriate level of confidentiality and security for online resources and communications is an important aspect of developing e-learning courses and resources” (212). They assert that ethical and policy implications of online communications and resources have to be considered. They state that online environment communication is different to face-to-face communication because communication through written messages in an online environment can be more widely disseminated if not deleted by the author or tutor. They also state that a clear code of conduct that is understood by all learners has to be developed. An institution’s computing network should not be used for purposes that are inappropriate, such as abusive statements or for non-educational and non-research use. Littlejohn and Pegler suggest that failing to follow online learning rules “would normally result in the student being reduced to *read-only* access, or denied access entirely.” (p.215). Littlejohn and Pegler draw attention to *netiquette* (Internet etiquette) in order to reduce conflict in an online environment. They assert that rules of the

netiquette guide are linked to context including: message formatting guidelines, expressing and managing emotions, and advice on conference/forum behaviour. In addition to the ethical issues stated above, Intellectual Property Rights and plagiarism are two major ethical factors that are discussed in the next sections.

### ***Intellectual Property Rights***

The issue of Intellectual Property Rights is not new but it has now become crucial as digital materials can be distributed and stored in easy accessible websites. *Intellectual Property Rights* is identified as “a broad term that refers to the legal protection available in relation to certain property that is intangible which can be created by individuals” (Casey, 2006, p. 4). Copyright and moral rights are two areas of Intellectual Property Rights that are of concern in the learning environment. Casey (2006) indicates that e-learning content development is affected by these two areas, which are automatically owned by the original author as the developer of the work. With copyright, only the owner has the right to give permission for using the intellectual contents including any electronic distribution. The main moral rights of the author have no economic value. As Casey clarifies, “they [moral rights] cannot be sold or bought. These rights stay with the author even when the copyright to the work has been sold or given to someone else” (p. 12). The moral rights include the right to be identified as the developer of the content and protect the reputation of the authors. Casey identifies different ways of infringing copyright including copying the content, distributing copies to the public and adapting, or amending the contents. He contends that “By evolving appropriate strategies to cope with moral rights and copyright, e-learning developers can turn these potential difficulties to their advantage by adopting more systematic approaches to their work” (p.13). The importance of these two areas of Intellectual Property Rights can be seen in the development of course contents in blended courses. Thus, within the exploration of

the lecturers' experience of blended courses in this study, the view of Saudi lecturers towards this ethical issue is demonstrated.

Littlejohn and Pegler (2007) point out that the area of copyright and online courses is a *hot topic* for most universities and colleges and state that:

*...the ease with which students and staff can publish files online, perhaps incorporating parts of files drawn from other sources within their own material, can raise concerns about copyright. When the only materials produced within a course are printed handouts there is a relatively low risk of copyright infringement if the institution has an appropriate copyright licence. (p. 212)*

According to Casey (2006), "IPR [Intellectual Property Rights] information is vital for digital libraries and repositories as it records who owns the e-learning resource, who can access it and use it, and under what conditions the resource is made available" (p. 4). Casey emphasizes the need for describing the relevant aspects of Intellectual Property Rights and providing guidance to the e-learning community especially on the use of third-party materials. He also asserts the need to "persuade developers of the potential benefits of including IPR management in their project planning and management activities" (p. 3). Intellectual Property Rights have therefore become an extremely important issue for e-learning which influences institutions decisions in implementing blended learning.

Intellectual Property Rights in Saudi Arabia have begun to be considered publically since the first Saudi Symposium for Intellectual Property rights was held in Riyadh on March 2008. The goal of the Symposium was to raise awareness of Intellectual Property Rights, the challenges encountered in the region and to exchange local and international experiences on this issue. Looking at the topics of this Symposium, there was no consideration of Intellectual Property Rights in e-learning. The covered topics were: the

importance of Intellectual Property Rights and the World Trade Organization rules for Intellectual Property Rights and the effect of Intellectual Property Rights protection on economic evolution and the knowledge industry. At the First Saudi Conference on Intellectual Property 2008, Al-Aqeeli (2008) stated that intellectual property rights are one of the factors related to the knowledge economy that have to be considered in Saudi Arabia. He also recommends restricting downloading digital materials that are offered online in order to protect intellectual property rights. During the third Symposium which was held on 2010, more awareness was raised concerning the weakness of the application of the Intellectual Property Rights laws and the regulations as Intellectual Property Rights violations are affecting the Saudi economy. According to Casey (2006), “they [Intellectual Property Rights] are in turn influenced by regulation of areas such as e-commerce” (p. 2). As developing and storing e-learning content is expensive, ways must be found to protect the rights of the developers.

In 2009, the Intellectual Property and Technology Licensing Program at King Saud University was launched to protect the University affiliates' intellectual property through establishing a strategy to license high-value economic inventions and market them (Al-Othman, 2009). The Program strives to meet a number of objectives (King Saud University, 2010) such as facilitating patent registration and technology licensing for King Saud University staff and the public, and protection of intellectual property rights of the university. It is clear that strong encouragement of scientific research at King Saud University has brought more of a focus on patent in Intellectual Property Rights and less of a concern for the development of digital materials.

There is a lack of awareness and literature relevant to Intellectual Property Rights relating to learning contents in Saudi Arabia. Therefore, the development and use of

digital contents of blended courses face an ethical challenge to protect Intellectual Property Rights. Certainly, addressing Intellectual Property Rights in learning is affected by the view of content developers who are lecturers in the Saudi context. What matters most in blended courses is the copyright as well as the moral rights of the lecturers while redesigning their courses and developing digital contents. Thus, there is a demand for research on lecturer experiences in blended courses with respect to the lack of policy in Saudi Universities on this issue. It is observed that less concern has been given to Intellectual Property Rights for e-learning in other parts of the world. As Casey (2006) indicates, “many consider that there has been a lack of awareness about Intellectual Property Rights issues in e-learning in UK educational institutions, especially regarding the use of third party materials” (p. 3). Therefore, as e-learning is only a recent trend in Saudi Higher Education, awareness of Intellectual Property Rights for e-learning can be addressed at an early stage of its development.

### ***Plagiarism***

Plagiarism is a serious ethical issue that has to be considered in education and specifically when implementing blended learning. Plagiarism means using others' words, ideas, graphs, or any creative expression without appropriate acknowledgement or referencing. Universities worldwide include guidelines for plagiarism in their handbooks in order to help their students to recognize the different types of plagiarism. Nevertheless, plagiarism is recognized as a serious issue in some Arab universities among students and lecturers who do not realize the consequences of plagiarism (Hamdan, 2006; Ebaid, 2005).

Saudi undergraduate students have generally not been exposed to plagiarism policies and regulations, therefore, they may not understand the implications of plagiarism.



Stover and Kelly (2005) found that plagiarism has been diagnosed among undergraduate students because they do not differentiate between the categorizations of “cheating” or “plagiarism”. A study investigating the views of students and lecturers on plagiarism by Sutherland-Smith (2008) indicates that the “students’ inability to explain their understandings of plagiarism in a manner that is consistent with their teachers and university policy is of concern” (p. 180). According to Sutherland-Smith, students need access to workshops or online modules to develop their academic writing skills in order to avoid plagiarism. This indicates that poor writing skills are one of the causes of plagiarism.

However, plagiarism is not always intentional as copying directly from other sources or claiming others’ ideas as the author’s own. It could be accidental because of a lack of knowledge of plagiarism or words may appear to be plagiarized due to similar ideas and easy access to information. In a study conducted in 1999, plagiarism was shown to be difficult to recognize in large classes (Stover & Kelly, 2005). Plagiarism which was previously ignored is becoming more easily detectable as a result of employing technology in diagnosing plagiarism in students’ assignments through search engines or anti-plagiarism software as *Turnitin*. Nowadays, some universities have started to offer access to *Turnitin* to assist lecturers as well as students to detect plagiarism in their assignments so as to avoid it. Stover and Kelly (2005) report that the lecturers of the University of Maryland University College may, with the students’ permission, submit students’ essays through the University subscription to Turnitin.com to help prevent plagiarism. In respect to plagiarism and Arabic publications, unfortunately there is so far no anti-plagiarism software that supports the Arabic language and an Arabic detection software is still under development by AlZahrani and Salim (2009) for

research purposes. This indicates a serious challenge for Arabic educators and Universities aiming to prevent plagiarism.

Universities are expected to develop strategies to prevent plagiarism. Stover and Kelly (2005) outline several strategies that were employed by the University of Maryland University College to prevent plagiarism:

*The first is to have an effective policy that clearly defines plagiarism; provides specific procedures for students, faculty, and staff to follow; and details the penalties for plagiarism. The second approach is to educate students and faculty on how to recognize and avoid plagiarism. (p. 3)*

Understanding the meaning of plagiarism should be the first step towards preventing it. Certainly, providing and introducing a clear policy concerning academic dishonesty and plagiarism is likely to raise awareness of plagiarism among students. Thus, with a shortage of documented policy of plagiarism for university students in Saudi Arabia, exploring students and lecturers experience in blended learning provides an opportunity to understand their views and practices of plagiarism. The perceptions of lecturers and students can inform decision makers and trigger the development of documented policies and implementation in which to address this ethical issue.

### **3.10 The Future of Blended Learning**

It is expected that there will be a dramatic rise in the use of blended learning approaches in the coming years (Bonk *et al.*, 2006). Supporting this view, Graham (2006) states that “although it is impossible to see entirely what the future holds, we can be pretty certain that the trend towards blended learning systems will increase” (p. 7). The emergence of blended learning has been influenced by the rapid changes in Higher Education within the last few years. In Saudi Arabia, Higher Education has been under extensive development, including the establishment of new universities and support given for the

integration of e-learning. Garrison and Vaughan (2008) indicate that the change in Higher Education has generally been caused by three catalysts. The first is the unprecedented advances in communication technology. The second catalyst has come from within institutions where the focus on research and the growth in class sizes has resulted in a loss of teacher-student interaction. The third factor has been the recognition of the quality of learning experiences in Higher Education which cannot be addressed by traditional methods. This has led to the emergence of blended learning which “has spread quickly and with considerable resonance within higher education” (Garrison & Vaughan, 2008, p. 148). The potential of the web in the near future is seen as a tool for virtual collaboration, critical thinking, and as an enhancement for learners’ engagement (Bonk *et al.*, 2006). At the same time, blended learning has become a better alternative for fully online learning. Bonk *et al.* assert that blended learning is more than a fashionable approach; it is now a standard part of the education and training glossary.

However, understanding the future of blended learning in Higher Education involves recognizing the abilities and expectations of the next student generation which is inevitably influenced by the rapid innovation in technologies. In Saudi Arabia, the new undergraduate students are expected to be more familiar with the use of technologies than current students and their lecturers. Consequently, the literature of digital natives and the development of e-learning are reviewed below.

Several studies indicate that the new generation growing up in the digital age requires a different way of learning. For example, a study was conducted in Australia by Krause (2005) to explore the emerging characteristics of current and prospective undergraduate students – their values, experiences and expectations. The author describes first time undergraduate students in 2005 as Generation Y, Net-genners, Millennials, Digital

Natives, Echo Boomers, or simply Yers. The Y Generation is familiar with the computer from the time they were born. They are technoliterate, fast learners, and have discovery learning skills such as those necessary in computer games. Supporting this view, Prensky (2001, cited in Littlejohn) states that most of the students are confident with the use of the computers and other technologies. They are digital natives. The Joint Information Systems Committee (JISC) reports that digital learners rarely describe e-learning as a separate or special activity and indicates that technology plays a big role in life and learning (JISC, 2007). Krause (2005) points out that the Y generation connects through email, mobile phones and online chat, along with face-to-face contact to build up connections. Nowadays, the majority of undergraduate students in Saudi Arabia are using email, mobile phones and Internet tools for connection. Consequently, their need for innovation in learning and teaching is high. However, JISC's report also raises concerns about learners' abilities to be entirely independent in the use of technologies.

It is expected that the type of technologies for learning and the way they will be used will change the future of education. Graham (2006) states that "due to the constantly changing nature of technology, finding an appropriate balance between innovation and production will be a constant challenge for those designing blended learning systems" (p. 16). Nowadays, the common online tool used in blended learning is called Web 1.0. In Web 1.0, information is delivered to users while in Web 2.0 information is created and edited by users. Web 1.0 is a read-only environment, while Web 2.0 is a read and write environment which facilitates social activities. Blogs, Wikis, Twitter, You Tube, Facebook, and Flickr are examples of the most common Web 2.0 tools. Globally, the number of users of Web 2.0 has increased dramatically. However, Web 2.0 tools such as wiki, which facilitates collaboration in learning, has not been utilized yet in blended learning in Saudi Arabia.

Using Web 1.0 technology results in e-learning 1.0 which “has been associated with a transmission or behaviourist style of learning in an environment that generally supports the notion of constructivist learning as the preferred approach” (Robertson, 2008, p. 425). At the same time, e-learning 2.0 promotes collaboration in knowledge construction. The rapid innovations in e-learning urges for research about the impact of these innovations on blended learning. Recently, research has started to explore the effectiveness of using Web 2.0 in blended learning. For example, Motteram and Sharma (2009) explored, within a blended learning environment, the role that Web 2.0 can play in enhancing language learning development. They emphasize the creation of suitable activities that cope with the learners’ need to facilitate the understanding of the language. They conclude that, “the use of technologies is also changing our understanding of the profession of language education” (p.83). With the continuous development of the use of web-based applications and 3D virtual worlds like Second Life, which can be called e-learning 3.0 (see Figure 3.4), there are even more opportunities to create a better engagement blend. The future development of technology will change the delivery modes used, the cost effectiveness and the acceptance and recognition of the new educational environment.

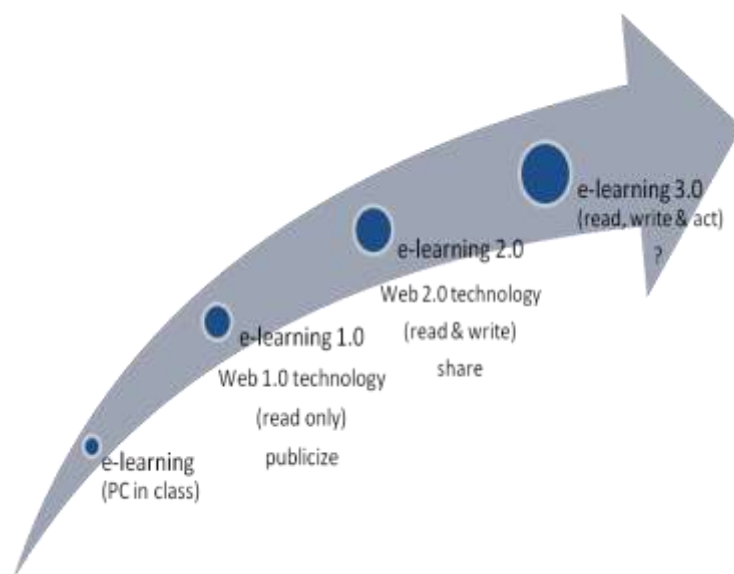


Figure 3.4: The Development of E-learning

Moreover, Bonk *et al.* (2006) state that understanding emerging technologies that will influence online learning helps in predicting promising technologies for blended learning. Bonk *et al.* conducted a survey to explore the perceptions of Higher Education educators of technologies that would most impact the delivery of online education during the next few years. Out of the 14 technologies listed, reusable learning objects, were predicted to have the most significant impact. Some of the other tools were: wireless technologies, collaboration tools, digital libraries and games with simulations.

Furthermore, the predicted expansion of blended learning is likely to be linked to ten trends which are presented in the survey of Bonk *et al.* (2006). These trends are listed in Table 3.4. The first trend is the increasing use of mobile and wireless technologies, which foster learning anytime and from anywhere. Some of the popular devices that enable mobile learning are: iPod, e-book reader, smart phone, PDA, and laptop. All of these devices enable learners to download digital course contents in order to access them at their convenience. Corbeil and Valdes-Corbeil (2007) state, “mobile learning capabilities will continue to expand with the introduction of smaller, more sophisticated and powerful gadgets capable of delivering data in a variety of formats anywhere, at any time” (p. 57). However, the expansion of mobile learning is not only influenced by new technologies but it may also be affected by student perception toward mobile learning, as concluded by several studies. For example, Al-Fahad (2009) investigated attitudes and perceptions of Saudi undergraduate students towards the effectiveness of mobile learning in their studies and found that students perceived mobile technologies as an effective means of enhancing communication and learning. Al-Fahad suggests that mobile phones are the most popular devices that can be used for mobile learning in Saudi Arabia.

The second trend indicates that mobile blended learning leads to individualization. As Bonk *et al.* (2006) clarify, “online learning will soon support a greater range of learning styles and individual differences in learning. For instance, blended environments will bring pictures, charts, graphs, animations, simulations, and video-clips that the learner can call up and manipulate” (p. 561). Furthermore, Littlejohn and Pegler (2007) anticipate that blended learning is likely to be individualized, where perhaps each learner can have a unique blend. Bonk *et al.* (2006) introduce the fourth trend were learners self-regulate their own learning and decide about the design of their own degrees or programs.

Global connectedness is also predicted as a feature of blended learning. Looking into the future, Bonk *et al.* perceive blended learning as a means for building shared cultural understanding on a global basis. For example, with blended learning, courses from various contexts will share similar online Learning Objects such as those provided in the Multimedia Educational Resource for Learning and Online Teaching (MERLOT) website. Of course, this trend may influence the Saudi educational environment which has its unique culture and traditions.

Moreover, Bonk *et al.* (2006) predict that blended learning will grow in universities because it reduces class room meeting or seat-time which then decreases the brick and mortar needs but at the same time it can increase learning outcomes. Bonk *et al.* raise the issue of how course designation in Higher Education might differ according to the percentage of the blend and how courses with one-third credit of online learning might become more respected in the near future than blended courses with only one or two face-to-face meetings.

Table 3.4: Trends and Predictions Related to Blended Learning (source: Bonk *et al*, 2006).

Mobile Blended Learning	Increasing use of mobile and handheld will create rich and exciting new avenues for blended learning.
Greater Visualization, Individualization, and Hands-on Learning	Blended learning environments will increasingly become individualized; in particular, emphasizing visual and hands-on activities.
Self-Determined Blended Learning	Blended learning will foster greater student responsibility for learning. Decisions about the type and format of blended learning will be made by students instead of instructors or instructional designers. Learners will be designing their own programs and degrees.
Increased Connectedness, Community, and Collaboration	Blended learning will open new avenues for collaboration, community building, and global connectedness. It will become used as a tool for global understanding and appreciation.
Increased Authenticity and On-Demand Learning	Blended learning will focus on authenticity and real world experiences to supplement, extend, enhance, and replace formal learning. As this occurs, blended learning will fuel advancements in the creation and use of online case-learning, scenarios, simulations and role play, and problem-based learning.
Linking Work and Learning	As blended learning proliferates, the lines between workplace learning and formal learning will increasingly blur. Higher education degrees will have credits from the workplace and even credit for work performed.
Changed Calendaring	The calendar system or time scheduling of learning will be less appropriate and pre-definable.
Blended Learning Course Designations	Courses and programs will be increasingly designated as blended learning paths or options.
Changed Instructor Roles	The role of an instructor or trainer in a blended environment will shift to one of mentor, coach, and counsellor.
The Emergence of Blended Learning Specialists	There will emerge specialist teaching certificates, degree programs, and resources or portals related to blended learning courses and programs.

In addition, Bonk *et al.* (2006) predict the emergence of specialist certificates and even master's degrees for blended learning lecturers. They also state that blended learning lecturers must have the skills that enable them to integrate new activities that meet



learners' interests. Certainly, understanding the abilities of the current and future students is the key.

In conclusion, there is a lack of studies that look into the future of blended learning in the Saudi context. The most likely explanation is that blended learning is relatively new and, with respect to learning in general, under-researched. This study addresses this gap and explores the views of lecturers and students towards the future of blended learning in Saudi Arabia. While globally there has been considerable research on the perceptions of e-learning and blended learning with its different models, there is plenty of space for further research specifically in the Arab region, and in Saudi Arabia where blended learning is now being introduced.

### **3.11 Summary**

The studies that are reviewed in this chapter show that the strategies, the effects and the perceptions of blended learning have been under exploration and still need further research. Bonk *et al.* (2006) point out the need for further research on the respect for and acceptance of blended courses and associated degrees programs. According to Garrison and Vaughan (2008):

*When blended learning is well understood and implemented, higher education will be transformed in a way not seen since the expansion of higher education in the late 1940s. The challenge now is to gain a deep understanding of the need, potential, and strategies of blended learning to approach the ideals of higher education. (p. x)*

With the rapid evolution of IT in Saudi Higher Education, many studies have been conducted to investigate the effect of the Internet on education and more specifically on students. However, studies on blended learning in Saudi Arabia are still very scarce and only conducted with male students. Therefore, it is hoped that this study will make a

contribution to interpreting the quality of Saudi students' learning experiences in blended learning. The study intends to discuss the issues that influence the students' experience which assist in identifying the factors affecting the quality of the learning experience.

In conclusion, by exploring the perceptions of the participants, the quality of the learning experience can be evaluated through their perceptions of various elements such as technology, learning flexibility and student engagement. The reviewed literature in this Chapter shows that the various issues of blended learning influence students' and lecturers' experience in blended courses. As exploratory research, this study has the potential to identify whether the participants' perceptions are influenced by the following issues:

- The participants' understanding of the concept of blended learning, including the definition, the design and the rationale which are key factors of blended learning implementation.
- Their experience of the utilized blended pedagogy.
- The role of the institution in the participants' learning and teaching experience.
- The participants' experience of the provided infrastructure and support.
- The impact of Saudi culture on the implementation of blended learning.
- The experience of the lecturers as well as the students of the selected blended learning design.
- The ethical issues that emerge from the experience of the participants in the blended learning environment.

Furthermore, this research aims to describe the participants' views of the future of blended learning in Saudi higher education. As the backgrounds of the participants

influence their perceptions, the results will be interpreted and discussed with a broader lens that allows the voices of both students and lecturers to be taken into account.

## CHAPTER IV: Methodology

*“[A]ll researchers interpret the world through some sort of conceptual lens formed by their beliefs, previous experiences, existing knowledge, assumptions about the world, and theories about knowledge and how it is accrued. The researcher’s conceptual lens acts as a filter: the importance placed on the huge range of observations made in the field (choosing to record or note some observations and not others, for example) is partly determined by this filter” (Carroll and Swatman, 2000, p. 237).*

This chapter presents a detailed description of the procedures followed to conduct this study. The objectives and the research questions of the study are followed by the theoretical framework and the research methodology. Then, a detailed description of the sampling, the data collection methods and the rationale for selection are demonstrated. Finally, the analysis process, ethical consideration, and limitations are provided.

### 4.1 Objectives and Research Questions

This study aims to explore the perceptions of Saudi female undergraduate students and lecturers towards blended learning, to identify the key factors that influence their views and to provide recommendations for future research, strategy and practice.

The main research questions underpinning this study are:

1. How do Saudi undergraduate students perceive blended learning?
  - a. How do the students understand blended learning?
  - b. What are the advantages of blended learning for students?
  - c. What challenges do students of blended courses encounter?
2. How do Saudi lecturers perceive blended learning?
  - a. How do the lecturers understand blended learning?
  - b. What are the advantages of blended learning for students and lecturers?

- c. What challenges do lecturers of blended courses encounter?
3. What are the participants' perceptions of the future of blended learning in Saudi Arabia?

## **4.2 Theoretical Framework**

The use of a theoretical framework enables the researcher to have a greater breadth of research analysis (Anfara & Mertz, 2006). Under the influence of the unique Saudi context, I am interested in exploring the students' and lecturers' perceptions, which are socially constructed, towards blended learning. Consequently, I considered social constructivism and social constructionism theories, which emphasize the role of culture and social aspects in shaping the views of both groups and individuals, in order to explore the experience of the participants. These two theories are the most prevalent theoretical perspectives in research on web-based learning (Dougiamas & Taylor, 2002). According to Gergen (1995) and Burr (2003), social constructivism and social constructionism share in their critique of the knowledge generation. Both have a philosophical perspective that considers the ways people construct meaning; both have a similar views on reality and assert that it is socially constructed.

According to O'Dowd (2003), advocates of social constructionism argue that knowledge arises from social processes and interaction. Accordingly, people make their own reality and there are no universal laws external to human interaction waiting to be discovered. He also contends that with respect to methodological implications, social researchers who adopt the constructionist position consider their interaction with their subjects a key part of social reality.

Burr (2003) identifies four key assumptions of the social constructionist position: a *critical stance towards taken-for-granted knowledge, historical and cultural specificity, knowledge is sustained by social processes and knowledge and social action go together*. Through these key assumptions, Burr emphasizes that social constructionism invites us to be critical and cautious of our assumptions about how the world appears to be. The nature of the world can be revealed by observation, and what exists is what we perceive to exist through life experience and communication. He asserts that knowledge emerges from social interaction influenced by our particular culture and history. The ways of understanding are influenced by time and place; in other words, they are situational. Constructionists believe that our knowledge of the world is not derived from the nature of the world as it really is, but that people construct it between them. It is a totally social matter involving the interpretation of experience within a particular cultural context of assumptions, norms and values. Human beings share meanings through their membership in a common society or culture. Many of the things we assume to be 'given' and 'fixed' can be, upon inspection, found to be socially derived and maintained by complex and organized patterns of ongoing actions.

According to Gergen (1995), social constructionism places the human relationship in the foreground; that is, the patterns of interdependent action the micro-social level; but it "avoids psychological explanations of micro-social process" (p. 24). Crotty (2003) makes a difference between constructivism and constructionism: "It would appear useful, then, to reserve the term constructivism for epistemological considerations focusing exclusively on 'the meaning-making activity of the individual mind' and to use constructionism where the focus includes 'the collective generation [and transmission] of meaning'" (p. 58). Therefore, the extent of the individual's control of their knowledge generation is the main difference that could be claimed by authors who

differentiate between these two terms (Burr, 2003). However, social process does play an important role in both theories. Social constructionism and constructivism are used interchangeably by many writers (Burr, 2003) when it represents the ways of knowledge construction through social interaction (Schwandt, 1997). Supporting this view, O'Dowd (2003) states that, "The social constructionist perspective within the social sciences is part of a much wider tradition which has been labelled constructionist or constructivist" (p. 41).

Because my intention was to understand and explore how participants constructed their own views and meanings through social interactions in a particular cultural context, I adopted the assumptions of these two theories and used them interchangeably. The elements that generate the assumptions of these two theories are culture, social interaction and, consequently, cognitive development. Social constructivists recognize the impact of the social environment, culture, and religion, on how people construct their realities about their world. They argue that meaning is developed through the interactions of social processes involving people, language, and religion (Berger & Luckmann, 1967), which can be considered dominant aspects influencing Saudi society.

Significantly, these elements are assumed to be constantly changing over time. Supporting this view, Gergen (1995) states that "Social constructionist orientation is a process in motion" (p. 29). Figure 4.1 illustrates the dynamic interconnection between these elements. The gears represent the elements to show the circular process of each element and consequently the construction of meaning.

Saudi culture, the blended learning environment, cognitive development and social interaction all influence each other in the process of knowledge generation. Religion

and culture in Saudi Arabia not only shape people’s attitudes, practices, and behaviours, but also form the construction of the reality of their lives. A study conducted by Yamani (2000) reveals that “for many Saudis the source for rules of social conduct and for religious observance are one and the same” (p. 12).

Similarly, the social environment, in cases where online learning is integrated with face-to-face learning, also exerts some influence on students’ perceptions. Participants of blended learning can interact physically and virtually. Blended learning environment is also a dynamic element that is under continuous development. Thus, the participants’ perceptions can be changed as a result of any modification of the learning environment.

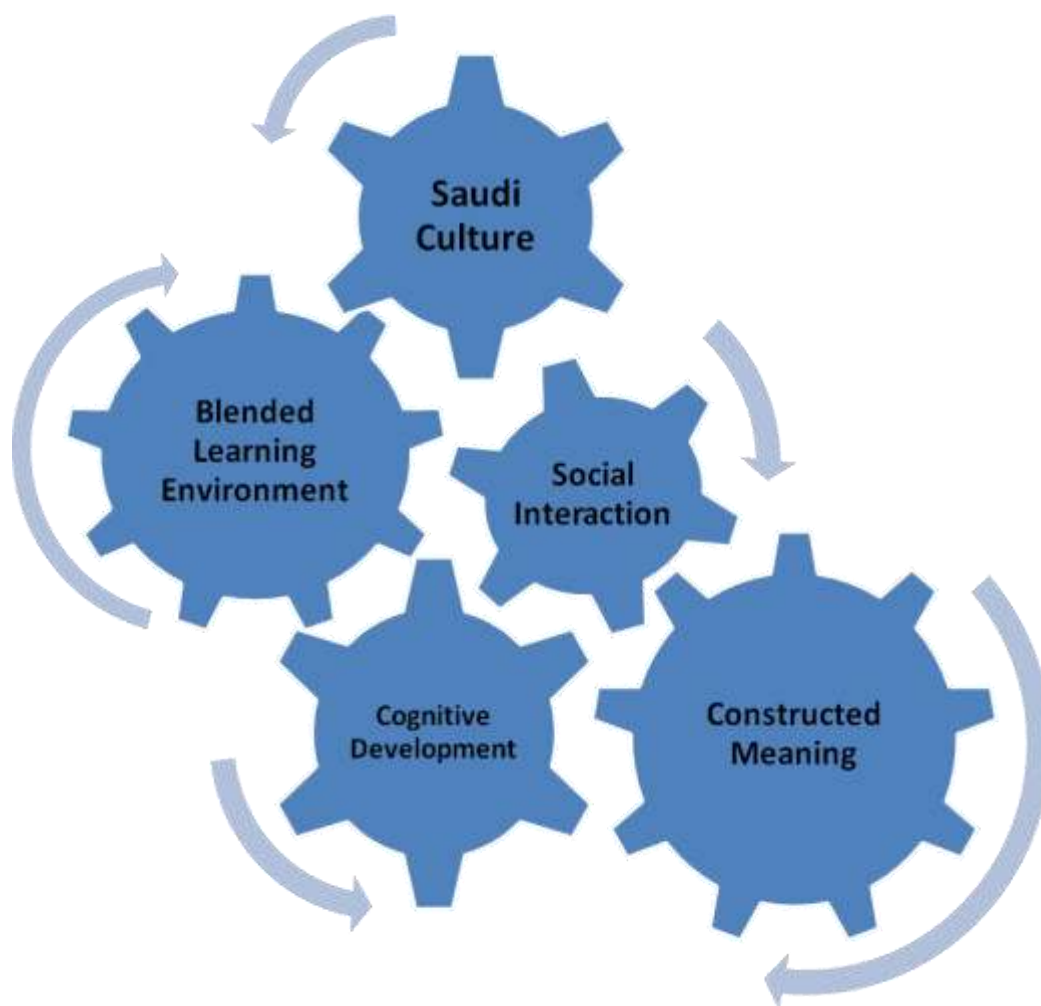


Figure 4.1: The Interrelationship between the Components of the Theoretical Framework.



With respect to the social interaction element, individuals and groups continuously discuss and interchange their views of the new learning environment based on their cultural and social values. Thus, the social interaction shares the cognitive development in the meaning construction as a result of the participant's experience. Social interaction can advance students' and lecturers' intellectual growth.

Since this study is claimed to be contextually unique, the influence of the social and cultural context on the participants' perceptions is evidently important. This makes social constructivism and social constructionism theories appropriate for understanding the perception of lecturers and undergraduate students towards blended learning in Saudi society. Thus, the chosen theoretical framework led me to choose a research methodology that considers understanding the nature of socially-constructed reality to be central to the research activity. The following section addresses the issue of methodology.

### **4.3 Research Methodology**

Research can be defined as a systematic and critical enquiry with the goal of generating knowledge (Ernest, 1994). Significantly, adding to this knowledge must be guided by theoretical perspectives. Thomas Kuhn (1922-96) emphasizes that researchers have to do their work based on a set of beliefs about knowledge (theory) which is called a *paradigm*. The parameters and the boundaries for scientific research are established by the paradigm, and "scientific inquiry is carried out strictly in line with it" (Crotty, 2005, p. 35). My selection of the research paradigm was based on my answers to the three questions: ontological, epistemological and methodological (Guba & Lincoln, 1994), which help to understand the most significant differences between paradigms. By

answering these questions, which are dependent on one another, I was able to choose the interpretative research paradigm.

First, the ontological question is, “What is the form and nature of reality and what is [it] that can be known about it?” (Guba & Lincoln, 1994, p. 108). The objective of the study is to explore the perceptions of students and lecturers towards blended learning, which is expected to produce multiple interpretations as it is a socially-constructed reality. This study is informed by the assumption that reality is not an objective phenomenon, but that “the social world is governed by normative expectation and shared understanding and hence the laws that govern it are not immutable” (Ritchie & Lewis, 2003, p. 23). The answer is in agreement with interpretative research that reality is socially constructed, where individuals’ behaviours are being continuously interpreted to give a meaningful explanation, usually within a particular context.

Next, the epistemological question is, “What is the nature of the relationship between the researcher and what can be known?” (Guba & Lincoln, 1994, p. 108). Epistemologically, my task was to gain access to the participants, understand and get immersed in their world, and make sense of their constructed meanings. As Radnor (2000) noted, understanding is reached and meanings are constructed and interpreted through the interaction between the researcher and the respondents. Being in a gender-segregated environment, as a female, I had a better chance to get easy access to all female campuses. My experience of being a Computer Education lecturer and a recent graduate student has enabled me to build a good relationship with the participants.

The methodological question is, “How can the researcher find out what she/he believes to be known?” (Guba & Lincoln, 1994, p. 108). The methodological assumption is

significant to identify the techniques that will be used for collecting the research data. The nature of my research questions led me to utilize an exploratory methodology which appears to be the most appropriate to explore and present a detailed view of the experience of the students and lecturers. By exploring and understanding the social world through the respondents' perspectives, explanations are presented at the level of meaning rather than cause (Ritchie & Lewis, 2003). Exploratory methodology enables researchers to uncover the perceptions, values and cultures of the participants (Ritchie & Lewis, 2003) searching for meanings in words and behaviours.

The previously explained philosophical assumptions reveal that my research interest is primarily subjective and qualitative in nature. Consequently, I can identify myself as an interpretive researcher and aiming to follow the interpretative paradigm to understand and interpret the perceptions of Saudi students and lecturers towards the blended learning environment. Interpretive approaches and social constructionists share the notion that all social reality is constructed or created by social interaction (Esterberg, 2002). The interpretative paradigm is known under a wide variety of names, including constructivist, naturalistic and the qualitative approach to educational research (Ernest, 1994). There is a clear difference between a paradigm or a whole approach and a methodology. It is understood that qualitative research is not always located within, or informed by, the interpretive paradigm. However, in this study I use the two terms 'interpretative paradigm' and 'qualitative research' interchangeably in order to correspond with authors' selections in their use of these two terms.

The interpretative research paradigm may be generally defined as research conducted in a natural setting where words or pictures are gathered and analyzed inductively in an attempt to interpret the viewpoint of the participants. Radnor (2002) states that

interpretive research “is trying to come to an understanding of the world of the research participants and what that world means to them” (p. 29). Interpretivism researchers study individuals with their many different human behaviours, opinions, and attitudes (Cohen *et al.*, 2007). According to Pring (2000), qualitative research addresses “the ‘meanings’ through which personal and social reality is understood” (p. 45). Creswell (1998) defines qualitative research as:

*an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting.*  
(p. 15)

Many of the methods used in qualitative research were developed to allow investigation of phenomena in their natural settings (Ritchie & Lewis, 2003). Qualitative research places emphasis on understanding through looking closely at people’s words, actions and documents, while quantitative research looks past these words, actions and documents to their numerical significance. The strengths of quantitative approach is in testing hypothetical generalizations (Hoepfl, 1997) and determining the correlation between two measurable phenomena (Creswell, 1998). Both qualitative research and quantitative research are valuable. A qualitative approach should not be viewed as an effortless alternative for quantitative study. Qualitative research requires extensive time in the field involving data collection, analytical processes and social and behavioural sciences, which do not have firm guidelines. Based on the reviewed literature, most of the studies that investigate perceptions utilize quantitative research (Al-Dakheel, 2008; Al-Fahad, 2009; Al-Kahtani *et al.*, 2006). However, the research questions and the methodology of this study led me to use qualitative approaches which are more effective in exploring subjective meanings within a culture, understanding perceptions and attitudes and interpreting the culture and social traditions (Creswell, 1998). I believe that using qualitative research for exploring the perceptions in this study would provide

the participants with the opportunity to describe their teaching and learning experiences from their point of view. Qualitative methods are appropriate to this study to better understand phenomena (in this case the blended learning environment in Saudi Universities) where little is known or when a researcher aims to identify the variables that might be later tested quantitatively (Hoepfl, 1997).

Consequently, I used qualitative methods to obtain rich descriptive data in order to facilitate the exploration of the phenomena. Five types of qualitative methods were utilized for data gathering: observations, diaries, reflective essays, focus groups and in-depth interviews. The blended learning environment allows for various types of shared information, which offered me the opportunity to explore the different avenues of human communications to understand participants' perceptions. I was able to collect verbal, non-verbal and written data from face-to-face and online environments. Thus, exploring student and lecturer perceptions and attitudes towards the phenomena of blended learning did not require structured methods of data collection; "Research problems tend to be framed as open-ended questions that will support discovery of new information" (Hoepfl, 1997, p. 49). Significantly, I was able to go back to the field and collect more data to answer questions that were emerging during the data collection and initial data analysis phases. This is an aspect of the interpretive approach that allows for a cyclical model of research.

#### **4.4 The Role of the Researcher**

The principle that the qualitative researcher is a key instrument has a significant implication for my role and responsibilities. This is also reflected by Wellington's statement (2000) that "The researcher affects the researched"(p.41). According to Lincoln and Guba (1985), the qualitative researcher must do three things. First, the

researcher must adopt the position suggested by the characteristics of the interpretative paradigm. Second, the researcher must develop the necessary skills for collecting and interpreting data. Finally, the researcher must prepare the appropriate research design with accepted strategies for naturalistic inquiry. Upon recognizing my role as a qualitative researcher, I found myself responsible for selecting the appropriate methodology for the research questions, constructing the data collection methods, determining sampling, collecting data and managing the analysis and interpretation processes.

Due to the social nature of the qualitative research, the relationship between the researcher and the participant inevitably pervades all aspects. The skills of the researchers can be evaluated by their “theoretical sensitivity” that was discussed by Strauss and Corbin (1990, cited in Hoepfl, 1997). Hoepfl states the "theoretical sensitivity" of the researcher can come from a variety of resources, including professional literature, professional experiences, and personal experiences. Strauss and Corbin describe this concept by saying, “Theoretical sensitivity refers to a personal quality of the researcher. It indicates an awareness of the subtleties of meaning of data. ...[It] refers to the attribute of having insight, the ability to give meaning to data, the capacity to understand, and capability to separate the pertinent from that which isn't”(p.42). Consequently, I believe that my professional and personal experience in teaching and publishing has helped me to be sensitive to the data and make appropriate decisions in the field. Significantly, “All information is filtered through the researchers’ eyes and ears and is influenced by his or her experience, knowledge, skill and background” (Lichtman, 2010, p.16). With my own personal background and knowledge of the study cultural context where Saudi individuals are not familiar with the qualitative research, I used multiple data collection methods in my research to enrich

the research data. Culturally, people are reluctant to express their opinions and feelings in a public arena such as a university. This was among the challenges of this research during the field study as participants often gave short answers so the multiple methods enabled me to obtain sufficient data. I was aware of how culture could influence the interpretation of the data. Understanding the relationship between the qualitative researcher and the researched has led me to be aware of my influence on the research and endeavour to be unbiased. However, I cannot remove myself from the data collection and analysis processes. Lichtman (2010) discusses how qualitative researchers try to use different ways to reduce bias through member checks and/or triangulation. Thus, I considered the trustworthiness of the research which is discussed in section 4.7.

As a qualitative researcher, I consider myself a research instrument and consequently the reflexive subject (Radnor, 2002). Cohen *et al.* (2007) point out that highly reflexive researchers are, “aware of the ways in which their selectivity, perception, background and inductive processes and paradigms shape the research” (p. 172). Guillemin and Gillam (2004) view reflexivity as a conceptual tool for qualitative research that assists in understanding both the nature of ethics and the practice of ethics in the research. Guillemin and Gillam argue that reflexivity is “also a bridge to the procedural ethical issues that can often seem out of place in the everyday practice of social research. Reflexivity, we suggest, is closely connected with the ethical practice of research and comes into play in the field, where research ethics committees are not accessible.”(p.264). Thus, reflexivity is an ongoing process through every stage of the research. Reflexivity requires researchers to examine and monitor their own assumptions, roles and bias in conducting the research and analysing its results (Wellington, 2000; Cohen *et al.*, 2007). I believe that it is very important that

researchers become aware of their own values and interpretation through the whole research processes. For example, during the analysis process I endeavored to develop themes that are logically consistent and reflective of the data. In summary, I recognized and proceeded to conduct my research with the concept that the role of the qualitative researcher is an integral part of the whole research process.

#### **4.5 Site of the study: The Blended Learning Environment**

The first implementation of blended learning was approved in October 2007 by King Saud University in Riyadh at the College of Applied Studies and Community Services (CASCS). The College of Applied Sciences and Community Service, in collaboration with other academic and administrative departments in King Saud University, provides varied services, such as the Transitory Program which offers the blended courses. The Transitory program aims to provide female students with an opportunity to improve their GPA up to a point where they can start their university education. Students who do not meet the university requirements can join a diploma program in the CASCS with a possibility of accrediting the courses they studied successfully. The College offers five blended courses which are compulsory for all undergraduate students of this college regardless of their majors. These blended courses are two Islamic studies courses (101 IS and 102 IS), two Arabic language courses (101 AL and 103 AL), and one introductory English course (101 ENG). Details of their contents are presented in table A-2 in Appendix A.

All the blended courses were designed in one format so that traditional instruction and online instruction were alternated. Figure 4.2 illustrates that the blended design was 30% face-to-face (F2F) instruction and 70% online instruction. The distribution of credit was 60% for mid-term and final exams in-class, and 40% for online instruction,



broken down as 10% for participation in online discussions, 20% for electronically submitted assignments, and 10% for online quizzes. All of the online activities were asynchronous, so each student could engage in online learning at her convenience. The online materials were developed by the lecturers of the course during the first semester of implementation. Collaboratively, they selected the materials that required less explanation to be converted to textual digital materials. The online materials were developed using PowerPoint slides individually and collaboratively.

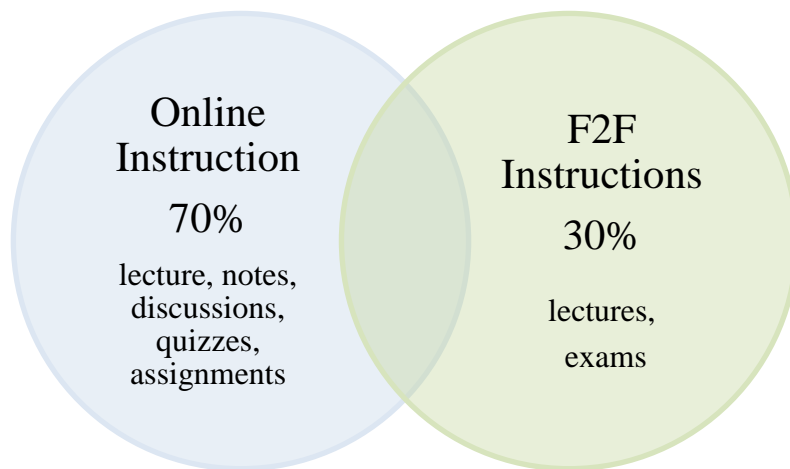


Figure 4.2: Blended Learning Design

The semester comprises 16 weeks - twelve of which are the actual studying weeks and the rest are for registration and final exams. The blended courses consisted of four face-to-face lectures and eight online instruction weeks as shown in table 4.1.

Table 4.1: Blended Courses Design on Weekly Basis

1 <sup>st</sup> wk	2 <sup>nd</sup> wk	3 <sup>rd</sup> wk	4 <sup>th</sup> Wk	5 <sup>th</sup> wk	6 <sup>th</sup> wk	7 <sup>th</sup> wk	8 <sup>th</sup> wk	9 <sup>th</sup> wk	10 <sup>th</sup> wk	11 <sup>th</sup> wk	12 <sup>th</sup> wk
F2F			F2F			F2F			F2F		
	Online			Online			Online			Online	

Each of these courses had a number of groups offered on two campuses; the first campus with Internet labs and the second campus had only one computer lab with a lack of Internet availability. The total number of these groups was 68 and the number of students in each group varied from 2 to 98 students, as illustrated in table 4.2.

Table 4.2: Blended Courses and Number of Students per Group

Blended Courses	Campus with Internet/lab		Campus with no Internet/lab	
	No. of Groups	No. of students per group	No. of groups	No. of Students per group
101 IS	12	30-53	8	28-66
102 IS	11	7-61	1	61
101 AL	3	40-49	8	43-86
103 AL	9	20-60	5	42-60
101 ENG	5	2-60	6	48-98
<b>Total</b>	40	1398	28	1600

All students and lecturers were assigned accounts in the Learning Management System (LMS) Jusur. The College provides IT staff to help both lecturers and students to overcome any technical difficulties. The IT staff offered brief orientation about using LMS for students in the first class meeting of all blended courses. They were also available in the lab time to assist students and lecturers.

#### 4.6 Sampling

This study used a criterion-based or purposive sampling approach, which is the dominant strategy in qualitative research. Ritchie and Lewis (2003) remark that purposive sampling is suitable for studies which involve sample units with particular features in order to enable detailed exploration of the central themes that will be studied. They contend that it is essential to decide which criteria will be used for purposive selection of the sample; “The choice of purposive selection criteria is influenced by a review of the aims of the study” (Ritchie & Lewis, 2003, p. 97).

The criterion I used was being a student or lecturer of any blended course offered in the College of Applied Studies and Community Services at King Saud University. I selected the sample of this study from the first campus because of the Internet availability in which most of the lecturers followed the proposed blended learning design. In the first week of the semester, I acquired a list of all blended courses

including details of the lecturers' names and the number of students in each course. I contacted most of the lecturers and seven of them agreed to participate in the study and provided their contact details. A total of sixty eight students agreed to participate in the study. Further explanation about the participants' backgrounds is presented in the following sections.

#### **4.6.1 Lecturers**

All of the lecturers hold a degree in the subjects they teach. Most of them were newly graduated students. Their experience in University teaching was between one semester and three years. Significantly, they had not experienced any online teaching prior to blended courses teaching. They varied in computer skills from beginner to advanced according to their familiarity with the Internet, emails and Microsoft Office. Table 4.3 summarized the background of the participating lecturers. All the blended courses lecturers were Saudi and obtained their degree in Saudi Arabia, where learning is based on traditional didactic. Therefore, none of them had been exposed to other teaching methods other than traditional methods.

The total number of the lecturers of the blended courses in both campuses was twenty. The lecturers of the campus that lack sufficient computer labs and Internet connection were excluded. Because the English lecturers refused to use the blended design they were excluded from the diaries and the focus group. One English lecturer was asked to participate in the interview in order to enrich and answer the research question "What challenges do lecturers of blended courses encounter?" Her participation in the interview would provide insight to the English lecturers' resistance of using the proposed blended model for their English courses. Therefore, the total participating

lecturers was seven: four Islamic studies lecturers, two Arabic language lecturers and one English lecturer.

Table 4.3: Lecturers Background.

Pseudonym	Age	Degree	Majors	Computer experience	Teaching experience	Blended teaching experience
Tahani	30	BA	Islamic Studies	Beginner	2	0
Deemah	31	BA, graduate student	Islamic Studies	Intermediate	6	0
Nouf	32	BA, graduate student	Islamic Studies	Beginner	7	2
Latifah	26	BA	Islamic Studies	Advanced	3	1
Haifa	27	BA	Arabic Language	Beginner	1	0
Rubaa	27	BA	Arabic Language	Advanced	2	1
Sameerah	28	BA	English Language	Intermediate	3	-

#### 4.6.2 Students

Due to the gender-segregated culture in Saudi Arabia, and the challenge of accepting a large number of female undergraduate students, the blended courses were only offered to female students. All of the students enrolled in blended courses are resident in Riyadh. However, a few of them live in the University dorm because they chose a major that is not available in their home city. Other dorm residents were unable to gain college admission in their home towns. Table 4.4 illustrates the background of all of the participating students and table 4.5 illustrates the background of the interviewed students. The majority of the students started their undergraduate study right after completing their high school. However, attaining admission to a public University is not easy, due to the steady increase in the number of applicants that exceeds the capacity of the public Universities (National Centre for Assessment in Higher Education, 2009).

Therefore, some of them had studied for a short time in private institutions before being admitted to public Universities.

Table 4.4: Background of all of the Participating Students

Age	18-21
Level	Freshman – Sophomore
Majors	Arabic studies, Social studies, English language, Special education, Psychology, Preschool, Business, Law, Accounting
Computer experience	Beginner – Advanced
Blended learning experience	0 - 3 courses

Table 4.5: Background of Interviewed Students

Pseudonym	Age	Level	Majors	Computer experience	Blended learning experience
Norah	18	Freshman	Arabic Language	Beginner	0
Manal	21	Sophomore	Social studies	Beginner	1
Salma	21	Sophomore	Business	Advanced	2
Dania	19	Freshman	Special education	Intermediate	0
Abrar	20	Sophomore	Preschool	Beginner	1
Fatimah	19	Freshman	Psychology	Intermediate	0
Shatha	20	Sophomore	Accounting	Advanced	0
Jawaher	21	Sophomore	Preschool	Advanced	1
Samiah	21	Sophomore	Accounting	Intermediate	2
Rania	19	Freshman	Business	Beginner	0
Tagreed	20	Sophomore	Psychology	Beginner	0
Jumanah	18	Freshman	Special education	Intermediate	0

In general, university students have been introduced to practical computer courses in high school. However, this is not guaranteed as some public high schools do not have computer labs and Internet access yet. The student's computer experience is according to her familiarity with the use of common applications, such as emails and Microsoft Word. Some of the participating students had already engaged in and completed one to three blended courses, whereas others were enrolled in a blended learning environment for the first time.

The blended courses are compulsory for all majors: Arabic studies, Social studies, English language, Law, Special education, Psychology, Preschool, Business and Accounting. Students of blended courses, irrespective of their majors, were asked to participate in the study. They were freshman and sophomore from various colleges.

#### 4.7 Methods

As explained in the methodology section, qualitative methods were utilized to obtain rich data that would facilitate a better understanding of the participant's experience. Significantly, the diary-interview method (Zimmerman & Wieder, 1977, cited in Wellington, 2000) was employed, where interview questions were generated to further explore diarist statements. Furthermore, I used the observation method to allow for more exploration of elements that may be missed in the diaries and the reflective essays. I employed five types of methods: observations, diaries, reflective essays, focus groups and in-depth interviews. Three lecturers shared their diaries and seven of them participated in the individual interviews. I conducted one focus group with six lecturers. Then, from the students I collected 21 reflective essays. In addition, I conducted 5 focus groups, each consisting of 6 to 8 students, and 12 students' in-depth interviews. I also observed the students and the lecturers during online and during face-to-face learning. A summary of the data collection methods is illustrated in Table 4.6.

Table 4.6: Summary of the Data Collection Methods

Participants	Observation	Diary	Reflective Essay	Focus Groups	In-depth interview
Lecturers	- Vice-Dean and lecturers meeting	3	-	1/6participants	7
Students	- Face-to-face learning - Online learning	-	21	5/6-8participants	12

In order to further understand the context of the study, I conducted two informal meetings- one with the Vice-Dean of the College and one with two IT technical staff. I

also attended a formal meeting with the blended courses lecturers at the invitation of the Vice-Dean. The meeting with the Vice-Dean covered the vision of the College towards the implementation of blended courses, as well as a discussion of some preliminary results of this study (see Appendix B). The Vice-Dean stated that the college expected challenges during this preliminary stage of blended learning implementation. She had arranged to meet the lecturers to discuss the progress of the blended courses, as well as the feedback from the program administration. I had the opportunity to attend that meeting and be a non-participant observer of the lecturers' responses. I noticed that the Vice-Dean considered the preliminary results that I offered and discussed them with the lecturers. Under the continuous development of the program, it appears that this study is an essential contribution to the implementation of blended learning. Furthermore, I had an informal meeting with two of the IT technical staff to discuss some of the challenges that face lecturers and students, which helped me to better understand and interpret some of the gathered data.

All of the methods were supported by a topic guide, which "provides documentation of subjects to investigate that serves as interview agenda, guide, or *aide-memoire*" (Burgess, 1984, cited in Ritchie & Lewis, 2003). Ritchie and Lewis noted that topic guides have to be seen as a mechanism for guiding the data collection process, but not as an exact prescription of coverage. Table 4.7 lists the key topics which I intended to explore. The three main key topics that address the research questions are the definition of blended learning, and the advantages and the disadvantages of blended learning. I selected motivation and engagement as a subtopic for collecting students' perceptions because I consider them as a key for success in learning. E-Pedagogy was selected as a sub topic for lecturers' perceptions because I consider it a crucial factor in the blended environment. Supporting this view, Alonso *et al.* (2005) note that pedagogical problems with blended learning require more effort to be resolved. The next step was to convert

the topics guide into interview schedules (Wellington, 2000) and an observation agenda, as well as diary and reflective essay forms for lecturers and students.

Table 4.7: List of Key Topics for Methods

Blended Learning concept
Definition & Advantages
Tools
Students
Motivation
Engagement
Lecturers
E-pedagogy
Challenges
Implications
Social and Cultural Context

For the sake of easy communication with participants, all data collection methods were translated into the Arabic language. Significantly, the methods were tested in a pilot study and accordingly modified when needed. Further information about the pilot study is presented in Appendix B. The following section presents an explanation of each method, including the rationale for its use and any consequence of the pilot study on these methods.

#### 4.7.1 Observations

Observational data enables researchers “to see things that might otherwise be unconsciously missed, [and] to discover things that [participants] might not freely talk about in interview situations” Cohen *et al.* (2007, p. 396). Observation was used in this study to obtain information that might not be attained by other methods and reveal changes over time. As noted by Morrison (1993, cited in Cohen *et al.*, 2007), the observation method enables the researcher to gather live data on programme setting (the resources, pedagogic styles and curricula). Using the observation method enabled me to



better understand the context, discover some elements that were further discussed in the interviews and the focus groups, and to cross-check the information.

Observation can be a participant observation or a non-participant direct observation. Participant observers engage in activities they observe, while non-participant observers deliberately strive to be as unobtrusive as possible in order to avoid bias (Cohen *et al.*, 2007; Wellington, 2000). I chose to be a non-participant observer to avoid being involved in the situation under assessment in order not to influence it. However, “It has been argued that all social research is a form of participant observation because we cannot study social life without being part of it”, (Hammersley and Atkinson, 1983, cited in Radnor, 2002). This opinion is also supported by Adler and Adler (1994 cited in Cohen *et al.*, 2007).

In this study I employed semi-structured observation to explore the students’ and the lecturers’ experience of the blended courses environment and to allow for in-depth interpretation. “A semi-structured observation will have an agenda of issues but will gather data to illuminate these issues in a far less predetermined or systematic manner” (Cohen *et al.*, 2007, p. 397). Radnor (2002) points out that open-ended observation allows considerable freedom in collecting information. During my observation, I recorded field notes. I also developed an agenda to facilitate recording the observation (see Appendix C).

Observations were conducted in two environments: face-to-face and online. The main goal of the face-to-face observation was to identify the strategy of teaching during face-to-face class time and explore the level of integration between face-to-face and online instruction. The online observation was conducted to search for elements that expressed

student satisfaction or dissatisfaction and to understand the participants' perceptions of the online instructions. Face-to-face class time observation was conducted on six groups and online observation was conducted on twelve groups during the first five weeks of the semester. Observations did not focus solely on individual subjects, but rather on the group as a whole. The focus of the online observations was: students' engagement in online instruction, student-lecturer interaction in online discussion, the proper use of the LMS tools and how the lecturers moderated online learning and utilized online pedagogy.

In order to do the online observation, I obtained an account as a student to the blended courses webpage in the LMS. As a result of the pilot study, I realized that understanding the perception of the lecturers towards online instruction required understanding the control panel of lecturers in the LMS. Therefore, I also obtained an account as a lecturer to the LMS to understand the lecturer control panel. My access to Jusur enabled me to observe announcements, discussions and access the online quizzes and the assignments. Online observation was conducted twice a week, for approximately one hour each time, on all of the groups during the semester. During the online observation I saved selected online activities to be interpreted at the analysis phase.

Moreover, I observed a meeting held between the lecturers and the College Dean to discuss the challenges that they have encountered. The meeting was part of the College's mid semester evaluation of the use of the LMS tools and the general implementation of the blended learning design. I observed the lecturers' reflections during the meeting with the Vice Dean to obtain more information about their perceptions regarding the challenges of the blended learning environment. As a lecturer

in a Saudi University and a research student, I was able to observe the learning context from both sides.

Moreover, e-plagiarism was noticed in the online discussion during the pilot study. Therefore, perceptions about e-plagiarism were further investigated in the main study by adding questions about students' and lecturers' opinions of e-plagiarism and how they understand it. I believe that e-plagiarism is a crucial issue that could affect the quality of learning in general and in particular, the quality of blended learning. Although plagiarism is an aspect of both online learning and traditional learning, I intend to investigate e-plagiarism, which is an ethical issue that is likely to be observed in online learning.

#### **4.7.2 Diaries and Reflective Essays**

Diaries are used in research to provide data about the experiences, thoughts, behaviour and perceptions of participants. Wellington (2000) asserts that diaries can be better than other methods and “are especially suited to those who prefer to write their thoughts and perceptions as opposed to being questioned orally or observed *in situ*” (p. 120). Diaries, as well as reflective essays, can be a support method for observation, a rich complement to interviewing, and a valuable way of triangulating. Initially, the diaries and reflective essays were used in this study to offer an opportunity for participants who prefer to record their experiences in writing or anonymously and to reveal issues of concern for discussion in focus groups and further investigation during in-depth interviews. Statements made in the diaries and the reflective essays were used for developing the main and the probing questions of focus groups and interviews.

What is also advantageous about diaries, especially for this study, is the relatively short time needed between the occurrence of a process or a sequence of activity, and the recording of data (Toms & Duff, 2002; cited in Lewis & Massey, 2004). This was addressed when the diary was introduced during the first interview with the participants. Participants were informed of the importance of immediacy between an activity and the diary notation.

According to Wellington (2000), there is no general format for diaries in educational research projects. The format has to depend on the activity (Wellington 2000; Lewis & Massey, 2004). Diarists were asked to keep a reflective diary; they were asked to look out for, and record critical events in their experiences of blended learning. Directing the format of the diaries, I developed a structured diary to assist the participants in recording their experience (see Appendix C) and enhance the quality of obtained data. Toms and Duff remark that “explicit categories would make the diary more efficient for entry and simpler for the participant” (2002, p.1237 cited in Lewis & Massey, 2004, p. 8). The forms were designed to avoid leading statements that might influence participants’ opinions and participants were asked to clarify any unclear phrases in their diaries. In addition, I informed them that they could provide their contact details if they were willing to participate in the interviews and focus groups or record their views anonymously to allow confidentiality.

Diaries were collected from three lecturers, who agreed to receive the diary forms by email, keep recording for four weeks and then submit them electronically. Participants were asked to report and reflect on important events during their experience of blended learning and record such impressions promptly. Two of the participating lecturers in the

diary method agreed to be part of the focus group, while the third lecturer provided further explanation in a later one-to-one interview.

Furthermore, my decision to use reflective essays for students was influenced by the pilot study, in which there was a poor response by students to using the diary method. During the pilot study, ten students agreed to participate in the diaries electronically. They received the forms via email; however, after being reminded several times by their lecturers and via reminder emails, only one student submitted her diary. Due to the design of the blended courses, in which each course group met once every three weeks (see table 4.1), it was not possible to meet the same students more than once during the planned time for this research method. Therefore, in the main study I decided to collect reflective essays instead of diaries. Reflective essays are used in qualitative research to enable participants to reflect upon their experiences in a learning environment (Zong, 2009). The reflective essays were collected from different groups of students over a three week period. Twenty one students participated in the reflective essays. I developed a reflective essay form that included a list of blended learning elements to provide guidance to participants for their reflections of these elements (see Appendix C). I handed the reflective essays forms out on-campus and collected them on the same day of recording. I believe that this approach sustained some of the advantages of the diary method and enabled the students to express their views textually. Collecting reflective essays from students offered sufficient information of their experience and perceptions that was further investigated in the focus groups and the interviews.

### **4.7.3 Focus Group**

The use of focus group interviewing is growing in educational research “gathering data on attitudes, values and opinions” (Cohen *et al.*, 2007, p. 376). A focus group is a

structured group method used to gain detailed information from people as they communicate within the group. The distinct function of focus groups is the explicit use of the group interaction to produce data and insight that would be less accessible otherwise (Morgan, 1997). I used the focus group method to allow interaction between interviewees with different experiences in order to reveal information that can be investigated further in one-to-one interviews. Ritchie and Lewis (2003) point to mixing qualitative approaches in an example of using focus groups as an initial stage to raise and begin to explore relevant issues, which will then be taken forward through in-depth interviews. According to Ritchie and Lewis (2003), focus groups create an opportunity for differences in opinions to be directly and explicitly discussed. For example, one focus group included students with distinct views: a student with no Internet access at home who had a negative perception of blended learning, and other participants who had a positive attitude towards blended learning. This generated rich discussions and further information.

I conducted five focus groups of six to eight students from various courses. The focus groups of the students ranged in time between 45 to 75 minutes each. The random selection of the students was done in order to have students from different experiences in blended learning. Some of the students had enrolled in more than one blended course and they were from different majors.

In addition, one focus group of six lecturers was conducted for about 90 minutes. All of these lecturers taught Islamic Studies and Arabic Language. One of them had two semesters experience in blended teaching, two of them had one semester experience and three of them were teaching blended courses for the first time. The participants engaged very easily in the discussion and were keen to share their perceptions. I endeavoured to

have experienced lecturers in the focus group of the main study because I realized during the pilot study that the lecturer who taught blended courses in the previous semester gave rich input therefore. Lecturers who have had prior experience with blended learning seem to be able to recognize the strengths and weaknesses of the program's implementation and recommend changes to increase its effectiveness.

In this study, the focus group questions were general questions to allow for discussions between focus group members (see Appendix C). I focused on the advantages of blended learning, the obstacles faced and the perception of e-plagiarism. However, probing questions were used as necessary to encourage the discussion of various aspects of blended learning, such as the assessment of the online discussion which was raised during the discussion. Moreover, focus groups were held in a convenient and informal environment on-campus. I used a digital recorder to record the focus groups to allow for reviewing of the data and accurate transcription. The discussion in Arabic was fully transcribed, and then translated into English and analyzed. I took notes to clarify any ambiguity in the transcription. Immediately after each focus group, I took time to test the recorder and write down the duration and any other comments that could clarify the nature of the interview.

#### **4.7.4 Interviews**

Interviews are used in educational studies to provide an opportunity for detailed investigation of participants' personal perspectives. Interviews enable researchers to understand the meaning of what the interviewees say (Kvale, 2009). Cannell and Kahn (1968, cited in Radnor, 2002) define the research interview as "A two-person conversation initiated by the interviewer for the specific purpose of obtaining research-relevant information". Radnor (2002) selects this definition to emphasize the aspect of

conversation, focused by the researcher, in the interview method. As Cohen *et al.* (2007) noted, interviews enable participants to discuss their interpretations of the world in which they live and to express how they regard situations from their own point-of-view.

I used the interview to obtain detailed information about topics that were identified with some ambiguity in other methods. For example, statements made in the diaries and the reflective essays were used as a way of generating questions for the interview. Wellington (2000) asserts that interviews that follow the review of diaries allow further exploration and deeper probing into the diarists' attitudes, experiences, and beliefs. This study shows that reflective essays have similar advantages to the diaries method. In addition, I held the interviews after the focus groups to allow each interviewee to be able to give detailed descriptions about her own experience with more devoted time. Experiences including personal advantages and challenges were investigated in detail in the one-to-one interviews with both lecturers and students.

All the interviews were conducted in a convenient and informal environment on-campus. They were held in a small room at the University. To support social interaction at the time of the interviews and focus groups, refreshments were provided. Similar to the focus group procedure, I used a digital recorder to be able to focus on the interviews and allow the data to be captured more accurately. I took notes to clarify any ambiguity in the transcription.

A semi-structure, in-depth interview was used, as the main method in this study, to enable the exploration of the participants' experience more openly and allow them to express their views and perceptions in their own words (Esterberg, 2002). Ritchie and



Lewis (2003) note that semi-structured interviews enable the interviewer to ask key questions, then do some probing for further information. Several studies utilize semi-structured interviews to explore students' and lecturers' perceptions towards the learning environment, such as the review study of the UK undergraduate experience of blended e-learning (Sharpe *et al.*, 2006). I used semi-structured interviews to allow for asking subsidiary questions, to ensure covering the topics that fulfil the research objectives, and give the interviewee a chance to elaborate on the issues they feel are priorities (Radnor, 2002). Rich data from the interviews facilitated deeper interpretation of participants' perceptions.

The interviews for both lecturers and students were designed to cover the interviewee experience, as well as the understanding of the blended learning concept. Three major topics were covered in the interviews: the expectation of the interviewee of the blended learning environment, any obstacles she encountered, and advantages she had experienced.

All the interview questions were open-ended. Some of the main questions were similar to those asked in the focus groups, both to obtain data from respondents who had not participated in a previous method or to allow for in-depth explanation if the interviewee was part of a focus group (see Appendix C). For example, the question about the respondent's understanding of the term *blended learning* and the obstacles faced in blended learning were included in the focus group and interview in the lecturer schedule. All of the questions were followed by further probing questions to allow for detailed information which encourage some interviewees to talk in depth about their distinctive experiences. For example, one lecturer raised the essential issue of addressing the copyright of digital materials as a result of her experience. Generally,

leading questions were not used in order to avoid influencing respondents' answers illegitimately. However, in a few cases I followed Kvale's argument (2009) that leading questions may be used to corroborate the information that the interviewee has already said.

I conducted interviews with seven lecturers and twelve students. The interviews ranged in time between forty to sixty minutes each. I realized that exploring participants' perceptions during the semester might be affected by the studying circumstances that faced the participants. During the mid-semester interviews, participants with first semester experience were not able to express reliable perceptions of blended learning. Therefore, I conducted further interviews at the end of the semester.

Conducting one-to-one interviews during the pilot study offered me the opportunity to experience the role of the interviewer and the moderator in focus groups. I took into consideration that I had to be an active listener (Radnor, 2002) and encourage the interviewee to talk freely and provide explanations and examples of her opinions. I became more careful about providing transition between major topics, as well as the appearance when writing down any observations made during the interview.

#### **4.8 Issue of Trustworthiness**

Educational researchers need to test and assess the quality and rigor of their research. According to Silverman (2001), *reliability* and *validity* are two central concepts that are used in any discussion of the credibility of scientific research. However, Golafshani (2003) pointed out that these two terms, as defined in quantitative research, may not apply to the qualitative research paradigm, when he asserted that "the concepts of reliability and validity are viewed differently by qualitative researchers who strongly

consider these concepts defined in quantitative terms as inadequate” (p. 599). Due to the nature of qualitative research, the terms *consistency* and *dependability* are often preferred over *reliability* while *credibility* is more closely related to *validity* (Ritchie & Lewis, 2003). Furthermore, it has been argued that the terms reliability and validity are not viewed separately in qualitative research; they are encompassed by the terminologies: *trustworthiness*, *credibility* and *transferability* (Golafshani, 2003).

One of the ways to bring credibility to a qualitative study is through triangulation (Silverman, 2001; Creswell, 1998; Cano, 2000). The meaning and rationale of triangulation are demonstrated by Esterberg (2002):

*Triangulation is often used to mean bringing different kinds of evidence to bear on a problem (Denzin 1989). Thus, if you have access to interview data, observational data, and historical documents, your analysis is likely to be much sounder than if you rely on only one source of evidence. This is because each kind of evidence has its own strengths and weaknesses. With observation, you can actually see how people behave; it allows you to see a whole process unfold over time. With interviews, you can gain insight into their feelings or reasons for behaving in a certain way. Using multiple kinds of data allows you to balance the strengths and weaknesses of each. (p. 176)*

In this study, triangulation of sources was used with the assumption that the “use of different sources of information will help both to confirm and improve the clarity, or precision, of research findings” (Ritchie & Lewis, 2003, p. 275). In this study, a rigorous data collection procedure was developed through multiple data collections to increase the credibility of the study. As a primary data collection method, in-depth interviews were used following observations, diaries, reflective essays, and focus groups to decrease imprecise information collected from diaries, reflective essays and observations and to allow for deeper investigation of focus group data. I used the interview method after collecting participant diaries to “increase data reliability and decrease diary disadvantages” (Zimmerman & Wieder (1977, cited in Lewis & Massey,

2004, p. 8); this is called the ‘diary-interview’ method (Wellington, 2000). Moreover, prior to the main study, a pilot study was conducted to test the research design and amend the methods as needed in order to increase their reliability and validity (Cohen *et al.*, 2007).

In addition to the above, I used the *respondent validation* method, in which respondents were asked to corroborate findings (Silverman, 2001). I was able to review the results of the lecturers’ data with two of the lecturers who had provided their personal contact details. Instead of providing full transcripts of the data to the lecturers, I chose to do the reviewing verbally as they were only available for a short period of time.

Furthermore, transferability, which depends on the degree of similarity between the original situation and the situation to which it is transferred (Hoepfl, 1997), was maintained through providing detailed description (Cohen *et al.*, 2007; Ritchie & Lewis, 2003). It was argued by Lincoln and Guba (1985) that the researcher cannot specify the transferability of findings, but he/she can only provide sufficient information that can then be evaluated by the reader to determine whether or not the findings are applicable to the new situation. Thus, this study strives to provide sufficient information about the environment of the research, the research design, the results (including quotes of participants) and the analysis processes to allow the reader to judge its transferability to another setting. In addition, a report about the pilot study procedure is provided in the Appendices.

#### **4.9 Data Analysis**

Qualitative data analysis is the most appropriate approach for analyzing participants’ perceptions. Based on interpretative philosophy, I analyzed data in the form of

explanation and interpretation of the participants' perception of blended learning. As Wellington (2000) points out, analysis of data early in the research cycle is important because it can influence future data collection. He also added that there is not only one correct method of data analysis however; there are general guidelines that indicate how to do it systematically and reflectively. Data analysis requires organizing and interpreting the data. It starts with data reduction, in which data are coded and sorted into categories and themes.

This study uses thematic analysis to identify themes within data. Thematic analysis can be used within different theoretical frameworks. This allows the theoretical framework of this study, social constructionism and constructivism theories, to be used as a foundation for the analysis process. The objectives of this research led me to allow the data to speak for itself. Themes were not predetermined, but rather emerged from the data; they were data-driven. However, "the emergence of categories from data depends entirely on the researcher" (Wellington, 2000, p. 142).

According to Ryan and Bernard (2003), the process of theme identification is rarely described in literature. They outline some techniques used to identify themes, of which I chose two: word-based technique and scrutiny-based technique. The word-based technique was used to identify categories at an early stage. During the data collection process, I wrote notes that could help me identify themes as they emerged from the early methods used, such as observation, and diaries. In this study, I had the opportunity to become thoroughly familiar with the data, as I interviewed and transcribed all interviews myself. I transcribed all of the recorded data of the interviews and the focus groups and translated them from Arabic to English. I also translated the reflective essays and diaries from Arabic to English. I read texts several times to search for keywords in

my field notes, transcribed interviews and diaries. I agree with Braun and Clarke (2006) that themes assist in capturing important issues in relation to the research questions that are not necessarily dependent on quantifiable measures.

The significant amount of research data compiled was a compelling reason to use computer-assisted data analysis software. Due to my background in Computer Science, I was eager to utilize computer technology to analyze my research data. Supporting this opinion, Ozkan (2004) indicates that large and varied amounts of data require the use of a software program to increase speed and flexibility in coding, retrieving, and linking the data. Barry (1998) points out that computer-assisted qualitative data analysis software maybe helpful in the following ways: by assisting automation and thus speeding up the coding process; offering a formal structure for writing and storing memos in order to develop the analysis; and supporting more conceptual and theoretical thinking about the data. I selected NVivo to analyze the data. It is a multifunctional software system for the development, support, and management of qualitative data analysis projects. I translated all of the collected data into English after transcribing the interviews and focus groups in order to import the raw data into NVivo. However, the software was not used as a replacement for the intellectual role of the researcher. Supporting this view, Ritchie and Lewis (2003) point out that, “There is strong advice that these [software] should be seen only as an ‘analytic support’ to aid the process of analysis and not as a replacement for the intellectual role that is required of the researcher” (p. 217).

Although a number of themes emerged from the data, I believed that more themes could be hidden in the data. Therefore, I used a scrutiny-based technique, which required intensive time for immersion in the data to search for unrecognized themes (Ryan &

Bernard, 2003). I used the scrutiny-based technique to enrich the interpretation of the study results. As Ryan and Bernard (2003) indicate, “In addition to avoiding sensitive issues or assuming investigator already knows about the topic, people may not trust the interviewer or may not wish to speak when others are present, or may not understand the investigators’ questions” (p. 93) or because they do not realize the crucial impact of these topics on the research. Therefore, observational data were used in this study to discover elements that were further discussed in the interviews and the focus groups, and to cross-check the information. For example, within the online observation I found that there was a little feedback from the lecturers which resulted in poor interaction. That was further discussed with the students and the lecturers in the interviews and the focus groups. During the analysis I found that some of the data required further investigation. Therefore, I returned to the participants who were available, to obtain more explanation.

The enriched data influenced the data analysis process and forced me to make several decisions regarding issues raised by the data. The collected data included various experiences that led me to be careful in addressing the effects of divergent perceptions on the results. Large preliminary categories, including a number of similar advantages and challenges identified by students and lecturers, were reclassified to illuminate the advantages and the challenges and provide a well-structured analysis. In order to discuss the perceptions of the participants with overall insight, I structured these categories into five main themes and interpreted them in detail, as described in Chapter six.

#### **4.10 Ethical Consideration**

Ethics and morals play an important part, both in education and scientific research. According to Wellington (2000), an *ethic* is a moral principle which is concerned with

the people behaviours and actions, “the *main criterion* for education research is that it should be ethical” (p. 54). Significantly, increasing consideration is being given to the ethical issues of research involving human subjects. Verma and Mallick (1999) assert the importance of the ethical issues concerning the rights of research subjects, especially for classroom research that involves personal information about students. “Ethical responsibility is essential at all stages of the research process, from the design of a study, including how participants are recruited, to how they are treated through the course of these procedures, and finally to the consequences of their participation” (Miller & Brewer, 2003, p. 95).

I put in place procedures to meet ethical rules and guarantee participants’ rights. First, I filled the Certificate of Ethical Research Approval, signed it myself, and then had it signed by my supervisor and by the Chair of the School’s Ethics Committee of Exeter University. This certificate certifies that the researcher will respect the dignity and privacy of those participating in the research (see Appendix D). Moreover, to get permission to conduct the study on the blended learning program at the College of Applied Studies and Community Services at King Saud University in Riyadh, I submitted a letter to the Dean of the College requiring consent for conducting the study, which was given.

According to the Ethical Guidelines on Research of the British Educational Research Association (BERA, 2004), participants have the right to be informed about the objectives of the research and its consequences. Also, a researcher should obtain informed consent before conducting the research. To meet these guidelines, during the first meeting with the participants, I explained the goal of the study and emphasized the importance of providing honest opinions that could help increase the credibility of the



research results. I introduced myself as a researcher and a consultant of the National Centre for E-learning, which was involved in the implementation of blended learning. I also indicated that the research results would be used in the development of blended learning implementation in Saudi Universities in order to encourage sincerity in their expressed views. Moreover, participants were informed that they would be able to see the complete research findings if they wished. At the beginning of all interviews, I informed the participants of the expected time frame of the interview and obtained permission from the participants to record the interviews on a digital recorder and confirmed that the recording would be kept securely and was to be transcribed by myself.

In addition, I informed them that participation was not compulsory and that they had the right to withdraw from the study at any time. Participants were asked to sign consent forms (sample in Appendix D) which included the aim of the study and declared the confidentiality and anonymity of the data. Confidentiality is identified as a main area of ethical issues (Cohen *et al.*, 2007). “Confidentiality means that the researcher can match names with responses – for example, a face-to-face interview – but ensures that no one else will have access to the identity of the respondent” (Miller & Brewer, 2003, p. 97). Thus, to sustain confidentiality and cover participants’ identities I used pseudonyms for participants. Moreover, anonymity which means that, “the researcher will not and cannot identify the respondent” (Miller & Brewer, 2003, p. 97) was maintained in the collected reflective essays of the students. I determined that specifying the name of the respondent would not be required, which resulted in receiving most of the students’ reflective essays anonymously.

## **CHAPTER V: Results and Analysis**

*“within the social sciences, research is often also underpinned by the need to make sense of the human condition, especially how and why people’s ‘lived experiences’ cause them to respond to, and talk about, apparently similar things in different ways” (Wellington, Bathmaker, Hunt, McCulloch & Sikes, 2005, p. 112).*

This chapter reports on the results of the perceptions of Saudi lecturers and undergraduate students towards blended learning in Higher Education. The analysis of the data is demonstrated in three major themes that correspond to the research questions. The students’ and lecturers’ perceptions are presented in two main sections that include their understanding of blended learning, the advantages of blended learning and the challenges they experienced. Finally, the analysis of the participants’ perceptions for the future of blended learning in Saudi Arabia is demonstrated.

### **5.1 Students’ Perceptions towards Blended Learning**

A rich amount of data gathered from the participating students is analyzed in this section. I classified the data of the students’ perceptions into three major categories: Understanding Blended Learning, the Advantages of Blended Learning and the Challenges of Blended Learning. The latter two include ten sub-categories each, as shown in Table 5.1. The student IT skill was identified as an advantage as well as a challenge by different participants. Several categories emerged through more than one data collection method, which emphasizes the importance of the categories; for example, flexibility and availability, online activities, student engagement, face-to-face instruction and rubrics and assessment.

Table 5.1: Categories Developed from the Students' Perceptions.

Category	Data Collection Methods			
	Reflective essay	Interview	Focus group	Observation
<b>Understanding Blended Learning</b>		✓	✓	
<b>Advantages of Blended Learning</b>				
Flexibility & Availability	✓	✓	✓	✓
Female Students and Culture		✓	✓	
Skills Development	✓	✓		✓
User-Friendly LMS Tools				
Online Announcement	✓	✓		✓
Electronic Assignment Submission		✓	✓	✓
Online Quizzes	✓	✓	✓	
Online Activities	✓	✓	✓	✓
Student Engagement	✓	✓		✓
Student Performance	✓	✓		
<b>Challenges of Blended Learning</b>				
Internet Availability		✓	✓	
Student Skills		✓	✓	
Course Subject		✓	✓	
Instructional Strategies				
Syllabi	✓	✓		✓
Rubrics and Assessment	✓	✓	✓	✓
F2F Instruction	✓	✓	✓	✓
Digital Materials	✓	✓		✓
Online Discussion		✓	✓	✓
E-Plagiarism			✓	✓

### 5.1.1 Students' Understanding of Blended Learning

One of the aims of this study was to explore how the participants understand and define the term *blended learning*. All of the participating students reported that they had never been introduced to this term. It was noticed that the term *e-learning* has been used instead of *blended learning* by the college administration, and consequently, lecturers and students. This misuse of the *blended learning* term, as well as not being informed about the delivery methods prior to commencing the courses, influenced the students' expectations of the type of learning. When asked in the interviews, 'What was your initial expectation of the blended course?' all of the students stated that they expected the learning to be entirely online. For example, Manal said:

*I expected it [blended learning] to be distance learning utilizing e-learning so I was happy that I was going to study from home through the Internet. I did not like the [blended learning] e-learning at first but later on I got used to it. I was not used to submitting the assignments online. The system was a little bit complicated for me. However, I got used to it.*

Thus, I realized that the students' expectations of distance learning were a result of the way the term *e-learning* was used in Saudi Higher Education. As discussed in Chapter two, two Saudi universities, King Abdulaziz University in Jeddah and Imam University in Riyadh, offer Bachelor degrees through a distance learning model that delivers instruction entirely through the Internet and that is called *e-learning*. The use of the term *e-learning* instead of the term *blended learning* has caused misunderstanding and consequently, students' dissatisfaction during the initial implementation. During the first semester of the implementation, face-to-face class time was not reduced. The administration claimed that the goal of this strategy was to allow lecturers and students to get used to online instruction. During the time of my pilot study, most of the participants expressed dissatisfaction with the program because there were compulsory online activities and no reduction in the amount of face-to-face instruction. Adding

compulsory online activities to traditional learning without any reduction in face-to-face time resulted in what can be called ‘a course and a half’ (Kaleta, Garnhan & Aycock, 2005). During the second stage of the blended learning implementation, which was the time of the main study, part of the face-to-face instruction was replaced by online instruction. Consequently, the participants expressed a high satisfaction with some elements that are discussed in the advantages section. However, the courses are still named *e-learning courses* instead of using the term *blended courses* in all of the University documentation.

### **5.1.2 Students’ Perceptions of the Advantages of Blended Learning**

Students have generally expressed positive views about their experience of blended learning, which reflects the findings of other literature (Owston *et al.*, 2006; DeLacey and Leonard, 2002; Kaleta *et al.*, 2005; Yudko *et al.*, 2008; Sharpe *et al.*, 2006). Furthermore, this result is in line with Alghazo’s conclusion (2006) that female students at the United Arab Emirates University had positive attitudes toward the web-based components added to the face-to-face learning environment. Many advantages of blended learning, such as the development of study and IT skills, the increase of access and flexibility, the user-friendly tools, and the enhancement of students’ engagement and performance were acknowledged. These issues are discussed in detail in the following sections.

#### **5.1.2.1 Flexibility and Availability**

The majority of the participating students appreciated the flexibility provided by blended learning which eliminates the barriers of time and space. The students were pleased that they could read course announcements, submit assignments online,

download lecture notes, and participate in online discussion at their convenience. The following excerpt was taken from the reflective essay of Amal:

*I have realized how flexible and good it (blended course) is and now I really like blended-courses...Also the lecture notes are very helpful... I prefer submitting my assignments online because it is easy and flexible.*

In addition, two different interviews confirm this opinion. The following excerpt is from the interview of Salma:

*e-learning [blended learning] offers sufficient opportunity for accessing and participation at your convenience so e-learning [blended learning] is better than traditional learning*

Similarly, Dania said in her interview:

*e-learning [blended learning] is really very convenient because it is flexible. I mean [learning] is based on the student circumstances. She is able to study at a time suitable for her.*

As discussed above, time flexibility was also identified by Aycock *et al.* (2002) as a principle reason for student satisfaction at the University of Wisconsin, Milwaukee. Certainly, online materials can be accessed from anywhere; however, the participating students appreciated the accessibility from their home only. According to a report from the Communications and Information Technology Commission (CITC, 2007), 96% of female internet users access the internet from home. This is due to the restricted access for females to public libraries that offer Internet access. Although, there has been an increase in public places such as coffee shops that offer culturally acceptable special female sections with WiFi, most convenient access to the Internet remains from home.

Moreover, the availability of the lecture contents online was perceived as one of the advantages of blended learning compared to traditional learning. In one of the focus groups, Wafa discussed this advantage:

*It [blended learning] is very suitable for Saudi students... having the lecture notes online is better than attending the lecture... I am confident that I can get all the lecture contents*

Students expressed positive perceptions about the accessibility to learning materials. They are able to revise, print, and download the lecture notes anytime from home. These results are similar to the findings of Graham *et al.* (2005), Osguthorpe and Graham (2003) and Garnham and Kaleta (2002). Flexibility is a positive feature for students irrespective of their responsibilities and duties; however, the participants indicated that it offers an extra advantage for female students in Saudi Arabia as discussed below.

#### **5.1.2.2 Married Students and Culture**

Married female students appreciated the flexibility and accessibility of blended learning. For example, Jawaher, a married student, said that this type of learning is very appropriate for her situation. In the interview, she explained her positive experience:

*I wish that all my courses were blended... this type of learning is very convenient for me... I am a married woman and a mother of two kids... I did very well in my blended courses.*

This finding indicates that the time flexibility of blended learning provides Saudi female students with a convenient way to continue their education. Females in Saudi Arabia are treated the same as males with regard to specific considerations as long as they are consistent with the local Islamic law (Mesbah, 2009). According to Mesbah, a mixture of local norms, traditions and social beliefs particularly about marriage and the low

level of awareness of the social and cultural value of girls' education limit women's opportunities to acquire or complete their education. Between 1996-97 and 2004-05, “the percentage of girls who opted not to enter university after completing high school was on average above 25% during that period. Girls also drop out of university at an alarming rate - the dropout rate reached approximately 60% in the academic year 2005-06” (Mesbah, 2009). In general, female students in Saudi culture who are wives and mothers face more demands on their time. Extended family is an important Saudi tradition (Yamani, 2000). In Saudi culture, extended families and frequent family gathering all influence most females' decisions to discontinue their study when they get married. Their time is dedicated to the responsibility of looking after their houses and children. However, some wives choose to continue their study, which adds more workload to their home duties. The time flexibility of blended learning may encourage more married females to continue their education. Although, this advantage seems to be unique to Saudi culture, other studies have reported that some students perceive working from home more positively than working from other sites, such as campus computer labs (Garnham & Kaleta, 2002; Vaughan, 2007).

### **5.1.2.3 Skills Development**

Most of the students indicated that blended learning helped them to practice and develop some essential skills such as IT skills and research skills. Students were able to acknowledge the benefit of blended learning in respect of these two skills while further generic skills surveyed by Oliver (2005) were not recognized. The students surveyed by Oliver perceived web-based learning as a factor that assisted them to develop various generic skills such as critical thinking skills and personal skills needed for communication and cooperative and collaborative team activities which helped them to be successful and self-sufficient learners. The online activities that were employed in



this present study lacked collaborative encouragement, which possibly affected the students' experience.

Moreover, I observed that the majority of the participating students experienced performing online activities, which is a sign of self-reliance. However, Basmah was the only student who pointed to 'self-reliance' in her reflective essay:

*The system [of blended learning] encourages self-reliance in learning.*

Integrating online learning with traditional learning leads students to be self-reliant and independent. This is one of the study skills that are required for being an e-learner. However, identifying the extent of the students' self-reliance in learning is beyond the scope of this study.

Furthermore, most participating students acknowledged that blended learning has helped to reduce computer illiteracy and develop their ICT skills. Following is an excerpt from the reflective essay of Afnan, which illustrates this perception:

*Nowadays, people who do not know how to use the computer is called illiterate...*

Similarly, Norah said in her interview:

*There are many advantages of this new learning system ... I was not used to the computer before being enrolled in blended courses... but now these courses have helped me to use the computer in doing my assignments and submitting them. I can use the computer now.*

Since being enrolled in blended courses, students now recognize how the computer plays a major role in education. They also contend that blended learning assists them in developing their IT skills. This result is consistent with Tubaishat *et al.*'s findings (2006) where a high percentage of female students at Zayed University in the United

Arab Emirates and Jordan University of Science and Technology agree that online learning helped them to improve their technical skills.

Students who have good ICT skills, which were developed prior to university enrolment, were keen to be enrolled in blended learning. It appears that the levels of ICT skills of the students affected their opinions. The following excerpt is taken from an interview conducted with Fatimah who is a student with good IT skills:

*I was very happy to hear about blended courses. I like using technologies in general and I expect this to be a very interesting type of learning.*

This quote shows that students' attitudes differ according to the level of computer skills and probably their understanding of the advantages of blended learning. The participating students who are the most IT literate have a strong positive attitude towards blended learning, which is consistent with Yudko *et al.*'s (2008) findings.

Furthermore, other students recognized how blended learning encourages the use of the Internet as a research resource. They use the Internet to search for information to complete the activities for their blended courses. For example, Samiah said in her interview:

*I think that e-learning [blended learning] helps Saudi students to increase their literacy... I search the Internet to find suitable articles for my online participation*

The students recognized the advantages of blended courses in promoting the use of online research resources. The Internet, as an open research resource, offers the opportunity for the students to enhance their skills and knowledge. This is very important in the context of this study as there is only a small library on the female

campus and the main library has a restricted access to females. The main library is located on the male campus. Due to the segregation rule, female students can only access the library one day at the weekend. This challenge could be addressed by the digital library that has been developed by King Saud University in 2010.

However, digital Arabic contents on the Internet are very scarce. The statistics indicate that the proportion of digital contents for Arabic does not exceed 0.3% of global digital contents for other languages (King Abdullah Initiative for Arabic Content, 2009). Some Arabic countries have started to consider the importance of building Arabic digital contents. For example, the First National Conference on Arabic digital contents was held in Syria on June 2009 with the support of UNESCO and the participation of several regional and international organizations. The conference aimed to stress the importance of increasing and enriching Arabic digital contents. In addition, the *Initiative of King Abdullah of Arabic Content* was established in 2007 in Saudi Arabia to bridge the digital divide. Currently, it is working on a local strategy to enrich the Arabic contents. The issue of the digital Arabic contents of all research field references is also a crucial challenge for Arabs researchers. One of the recent projects of the *Initiative of King Abdullah of Arabic Content* is building an Arabic Health Encyclopaedia called *King Abdullah Encyclopaedia for Health Content* to promote digital health contents for Arab users of the Internet. The announcement of this project indicates that specialist scholars are involved in building the Arabic contents of the Encyclopaedia.

With all of the above, the need for comprehensive guidelines for using the Internet as a research resource, particularly in Arabic, has been raised. Learners need to be guided on how to find authentic information as well as using citations properly. The observation of the online discussion showed that some students' participations were derived from the

Internet without citation. This crucial issue is further discussed in the challenge sections of the students and the lecturers.

#### **5.1.2.4 User-Friendly LMS Tools**

The LMS, Jusur, is used as a communication and assessment tool. Online announcement and online discussion are used for communication while online quizzes and electronic assignment submission are used for assessment. Most of the participating students were very positive about the tools offered by the LMS Jusur. This is consistent with Weaver *et al.*'s students' survey (2008) that revealed generally positive experiences and satisfaction of using the LMS, WebCT. The new version of Jusur, released at the time of data collection, had an improved interface. Regardless of some technical problems that were managed by IT staff, the students perceived these tools as friendly and helpful, as presented below.

- **Online Announcements**

The LMS offers a tool that allows the lecturers to post course announcements. Some students appreciated having online announcements about important dates for exams or assignment submissions. This opinion was reported in the reflective essays and the interviews of the students. Jameelah wrote in her reflective essay:

*The lecturer informs us of the due dates of online quizzes and assignments through the announcement page*

The online announcements afford flexibility for students to check their course news at their convenience. However, not all of the students checked them regularly, as they claimed during the focus groups. This raises an interface design question of whether the announcement posts should be displayed on the course home page for easy access.

- **Electronic Assignments Submission**

Many of the students were very pleased about submitting their assignments electronically. The assignments are submitted in the designated assignment boxes on Jusur. The system does not allow submission after the deadline. One of the students found that the *deadline* feature has helped her to avoid procrastination. To illustrate this perception, following are two excerpts from the reflective essays of Amal and Sarah.

Amal wrote:

*I was very enthusiastic about being an e-learner... I was confident that my assignment was received [electronically] since it could be lost if submitted by hand.*

While Sarah wrote:

*[electronic assignment submission] is quick. It helps to avoid procrastination because it is timed. If it is not submitted before deadline I will lose the assignment mark.*

The electronic submission was described as a *quick* approach, which is a sign of experiencing how practical it is compared to traditional submission. In addition, this result demonstrated that electronic submission is a tool that ensures the assignment is received by the lecturer, as against the paper submission which is likely to be lost. Moreover, the submission tool seems to be easy to use as no complaints were received from students.

- **Online Quizzes**

The high percentage of the participating students (97%) appreciated the use of online quizzes, which are assessed automatically, in enhancing their learning. Online quizzes are built using multiple choices questions that have to be solved within a limited time. I observed that most lecturers allowed about 15 minutes for solving 3 to 5 multiple

choices. Although, online quizzes were first experienced by the students in blended courses, it was frequently expressed in the interviews and the focus groups that the online quiz is a friendly tool of the LMS Jusur. The following excerpt was taken from the reflective essay of Zainab to illustrate this perception:

*I am pleased about my progress. I have found that online quizzes are a very useful activity.*

Similarly, Abrar said in her interview:

*The online quizzes [tool] are great. I did not have online quizzes this semester but I did last semester. I had them on-campus but the time was short.*

This tool was described as *useful* and *great* by the students. The automatic assessment feature in the online quizzes allowed the students to receive prompt grading which informed them of their understanding and performance in the course.

- **Online Discussion**

A large number of the students (92%) perceived online discussion as an efficient tool that enhanced communication with their lecturers. All of the online discussions were asynchronous and textual. Online discussion was used by some lecturers as a communication tool to receive any queries and complaints from students. For example, a thread was started by a student encountering a difficulty while downloading an assignment. Other students facing the same problem posted in the same thread. The lecturer replied online and stated that she would investigate the problem and contact the college technician. This type of communication offers the students a chance to solve any difficulties they face without having to come to school. It also offers them the chance of extra writing in English. One of the by products of e-learning is an increase in writing, as it is necessary for the students to communicate their needs.

Generally, the tools for posting or replying to messages are easy to learn and use. In addition, using the courses' online discussions is not a new experience for most of the students, who are used to engaging in public online discussions on the Internet. However, using online discussion in learning requires more formal ways of writing and spelling. Generally, Internet users are used to informal ways of communicating in the virtual environment. Therefore, guidelines of proper writing for online learning would be helpful for the development of professional e-learners.

Moreover, the online discussion was perceived as a forum that promotes a better opportunity for students to present their opinions with more confidence. For example, in her interview Manal said:

*Online discussion facilitates interaction with our course lecturer.*

Similarly, Samiah said in her interview:

*E-learning allows me to post my opinion with more coolness and self-confidence.*

This finding confirms other literatures which report that online discussion helps students to present their views and overcome their shyness (Tubaishat *et al.*, 2006) and minimizes risk taking for the less confident students. Online discussion is one of the Jusur tools that is considered useful and friendly by the students. They identified it as a means for enhancing communication between them and their lecturers.

#### **5.1.2.5 Student Engagement**

The students indicated that the new experience of being an e-learner as part of their blended courses offered them a substantial opportunity to be better engaged in the

learning process. This advantage was frequently reported in the reflective essays. The following excerpt from the reflective essay of Afnan illustrates this perception:

*I enjoy all of the [online] activities. I submitted all of the assignments and I participated in the required discussions but I missed the one that was posted during the holiday because I did not expect it*

This opinion was also verified during the interviews, as Shatha said:

*I feel excited when using the LMS.. it is outstanding.. I access [my account] it from home to review the lectures.. do the assignments and [access] the online discussion..*

While Rania said in her interview:

*I have learned a lot from reading my peers' posts in the forums.*

These quotes show that the students have realized the benefit of blended learning in enhancing behavioural engagement, which is reflected by active participation and involvement in activities (Furlong & Christenson, 2008). Moreover, cognitive engagement that involves searching, analyzing, and critiquing (Zhu, 2006) is likely to be identified by students' statements but not observed in the messages posted in the online discussion.

The online environment allowed them to learn from peers' thoughts. Zhu (2006) states that cognitive engagement involves critiquing and reasoning through various opinions and arguments. Cognitive engagement would enhance students' learning if it is reflected in their interaction and argument. However, reading and analysing without interaction could be a sign of cognitive engagement as well. This could be the case of the students in this present study. Significantly, it was observed that cognitive engagement was not encouraged nor facilitated by the lecturers. Fostering student reflection upon course contents was not part of the teaching strategy. Cognitive engagement can be encouraged



through promoting activities that enhance analysis and critical thinking. However, the type of assignments and topics of online discussions in the blended courses forced the students to search for the answers in the text books. This is supported by Corno and Mandinach's opinion (1983) that the lecturer's encouragement and discussion facilitation affect the student levels of cognitive engagement. The role of the lecturer in facilitating the interaction in online learning is further discussed in the challenges section.

#### **5.1.2.6 Student Performance**

Most of the students (89%) reported that blended courses have helped them to increase their GPA and were happy with their performance. This finding is consistent with the results of Rodanski (2006) and Abu-Mosa (2008) where students' performance had improved when web-based instruction was added to the traditional instruction. Other students of this present study were keen to use the Internet in learning. Those who have good IT and time management skills have shown a good level of self-discipline. For example, Dania said during her interview:

*I prefer blended courses and I wish that all my courses could be blended. Last semester, I was enrolled in an Arabic blended course, which helped me to increase my GPA.*

Furthermore, other students stated that online learning is a convenient environment that could help in improving their performance when taken seriously. They claimed that they had not taken online learning seriously in their first blended courses, which had an impact on their results. They were keen to benefit from online activities in the future to improve their performance.

### **5.1.3 Students' Perceptions of the Challenges of Blended Learning**

This section presents the challenges that have been experienced by students. The majority of students expressed their enthusiasm to be enrolled in blended courses in the future and presented these challenges as issues that have restricted the effectiveness of blended learning. However, some challenges, such as the lack of internet availability off-campus and required skills, resulted in a negative attitude toward blended learning. The latter group expressed their dissatisfaction of this new learning environment. Following are the challenges that were identified by the students.

#### **5.1.3.1 Internet Availability**

The availability of the Internet at home, as well as the shortage of Internet labs, is considered a challenge facing a few of the students (5%). The shortage of Internet availability on campus was indicated as a reason for unacceptable grades in blended courses. In addition, there were a few incidents where the Internet was disconnected on campus for a few days. In a focus group, Muneera stated that doing the online assignments on campus became a struggle with frequent Internet disconnections and this also affected her peers who do not have Internet at home:

*I know two of the students who do not have access at home and they were not able to do their assignments on campus last week because the Internet in the lab was disconnected.*

Furthermore, the shortage of Internet labs on one of the University campuses appears to be a crucial obstacle for another group of students who live in the University dorm and are not provided with Internet access. These students were also critical of the accessibility of campus Internet labs. This is probably because labs are not available all day and the offered time is not sufficient to learn the online tools and do the assignments.

It was reported in the focus groups by some students that the availability of the Internet at home is a challenge for a few of their friends. This obstacle was also confirmed in the interviews by two students who did not have Internet access at home. They stated that their conservative parents did not allow Internet access at home because they believe that the Internet has negative effects on ethics and values. For example, Ameenah said during a focus group:

*I do not have access to the Internet at home... my parents forbid the Internet at home for all the family members...I usually ask peers to help me during the lab time. Since I do not have Internet access at home, I have not appreciated the blended learning courses at all. The school should take into consideration the students who do not have Internet access at home.*

This finding reflects Zahran and Zahran's argument (2008) that some parents in Arab cultures do not provide the Internet for their daughters because they see it as a tool offering materials against norms and values of their culture. In rural areas, this is a major challenge as the spread of the Internet, in particular to homes, has been slow and the families are more conservative and resist change. However, the cultural aspect of restricting the Internet at home in large cities is changing as the society has started to recognize the importance of the Internet in education. In this study, the participating students, who are studying in the capital city Riyadh, mentioned that about two to three students in a class of fifty to sixty students face this challenge. This result is consistent with the report conducted by the Communication and Information Technology Commission (CITC, 2007) about Internet Usage in the Kingdom of Saudi Arabia, which found that 8% of participants stated that their family does not allow an internet connection at home.

### 5.1.3.2 Student Skills

Some of the challenges faced by the participating students were related to their skills. The lack of ICT skills, studying skills and time management skills were identified in reflective essays, focus groups and interviews. A challenge of the blended learning, that was raised by Jumanah and Norah who had negative perceptions, was strongly related to poor studying skills. For example, Jumanah claimed that she is very familiar with the Internet but she prefers traditional learning over blended learning:

*I like using the Internet but I am not motivated to study online. I dislike uploading homework and following up the course announcements. I spend many hours on the Internet daily, but I do not prefer e-learning.*

Jumanah mentioned that she had poor performance in the blended courses. Although she spent a long time browsing the Internet, it was with little focus on study goals. This is an aspect of distraction in the online environment. Supporting this result, a study by Al-Dugairy (2009) reported that 61.32% of the female students of the Prince Norah University in Riyadh had experienced poor performance as a result of spending excessive hours on the Internet. Al-Dugairy recommends offering guidance to University students through workshops on the negative aspects of the Internet and training for time management skills. This result highlights the importance of concentration on tasks as well as the time management skills. The challenge of time management skills was also reported in the reflective essay of Hanoof :

*I cannot manage my study time at all. I try but I do not know how to be able to manage my time. It will help me in many things but it is difficult for me to manage my time.*

Similarly, Badryah wrote in her reflective essay:

*I am not able to manage my [studying] time. I hope I can do it.*

Furthermore, the students who did not have access to the Internet at their homes had poor ICT skills. In addition, they claimed that they were not offered computer courses at high school. These students were unhappy about the shift to blended learning and were not able to perceive positive outcomes. In her interview, Tagreed had a negative perception towards blended learning as a result of poor IT skills:

*I am not satisfied with my progress... I am a student who does not have enough computer skills to be enrolled in blended courses and I do not have the desire to learn online at all.*

In a focus group, the students reported that at most two students per group have faced this challenge. One of these few students stated that she used to ask either her friends or relatives to type and submit her assignments while she often missed the online quizzes. Furthermore, these students claimed that blended courses negatively affected their GPA due to their lack of IT skills and no Internet access off-campus. This finding adds to Vaughan's result (2007) that students' ICT skills are an essential factor that affects their outcome.

#### **5.1.3.4 Course Subject**

A large number of the students (96%) expressed their satisfaction with blended courses and indicated that they would prefer to have all their Islamic studies and Arabic language courses in a blended format. However, these students had some concerns about other subjects for blended courses. They agreed that the subjects that require detailed explanation from the lecturer, such as maths and accounting, have to be taught face-to-face. The following excerpt was taken from Samiah's interview:

*I prefer blended courses.. I wish all of my previous Religious courses and Arabic Languages has been blended courses. However, I think blended learning is not appropriate for problem-solving courses such as accounting courses.*

It is likely that this opinion is based on the student's experience of being enrolled in blended courses in the field of social studies, therefore the success of a blended format for applied science courses cannot be judged unless they have been experienced. This opinion indicates that converting applied science courses to a blended format has to consider the objective of the courses and students' feedback to provide an effective model.

#### **5.1.3.5 Instructional Strategies**

The participating students have experienced dissatisfaction with some teaching strategies used in blended courses. These instructional strategies are related to both traditional and online teaching which are: face-to-face instruction, digital materials, syllabi, rubrics, online quizzes and online discussion topics.

- **Syllabi**

As the majority of the lecturers had not provided course syllabi, students' performance was affected. The students indicated that they missed important activities because they were dependent on course announcements to get the important information. Most of the lecturers posted the required online activities on course announcements or online discussion tools without previous information about posting and submission dates as normally found in the syllabus. For example, Afnan wrote in her reflective essay:

*I think the online discussion has helped me to increase my grade. But I wish that the lecturer had told us about the dates that she would post the discussion topic or the assignment.*

Also, Dania gave an example in her interview of how the lack of syllabus had influenced her achievement:

*I enjoy all of the activities.. I submitted all of the assignments and I participated in the required discussions but I missed the one that was posted during the holiday because I did not expect it.*

Another student complained about the demand on time spent on online learning and blamed the ambiguous course requirements. This raises another challenge as discussed in the following section.

The use of syllabus is significant for traditional courses and vital for blended courses. This finding is supported by Regan's advice (2007) on the importance of syllabus for blended courses to students new to blended learning. He asserted that syllabus should provide information about course structure such as dates of face-to-face meetings and assignment due dates that are all critical aspects of the course.

- **Rubrics and Assessment**

Some participating students (52%) were dissatisfied with the assessment used in blended courses. Because the assessment criteria were not documented in rubric, the students did not know what was expected from them. When the students were asked during a focus group about their opinion of online discussion as a tool of assessment, some of them indicated that they would prefer that online discussion is assessed as a bonus credit. For example, Norah said in her interview:

*I think there would not be good posts if online discussion was not assessed. But if there was a bonus for participation, this might encourage the students to participate and the posts would be valuable. I think that having a bonus for participation rather than making it obligatory would be better as students will be motivated to get extra points and this will help in minimising the effect of frequent disconnection of the Internet*

This result opens an argument on using online discussion as an assessment tool effectively and raises the need for clear rubrics for this assessment. However, struggling

in online tasks still occurs even when rubrics are offered. As Tabor (2007) states, learners struggle a bit with online discussion despite a carefully developed grading rubric clarified with examples. The participating students of this study had a bigger struggle as they had no rubrics. They stated that the assessment of online discussion was not familiar to all students and appeared to be based on quantity not quality. In a focus group, Hala said:

*Although I like to be e-learner....I am disappointed with the assessment approach of the online discussions. One of the lecturers used to evaluate the discussion according to the quantity (40 posts) but she did not inform us of the assessment criteria and that affected our grades.*

Moreover, online quizzes were utilized in blended courses as an assessment tool from campus labs or from home. It was noticed that the online quizzes were offered in a monitored and unmonitored environment. A few students noticed that promoting unmonitored online quizzes allowed for cheating. In the reflective essay of Jameelah, she wrote about her experience with the online quizzes:

*I had an online quiz last semester. It was great but the time was an issue for all of the students. Also, the Internet disconnection at the time of the exam and cheating were an issue. However, it was a good approach.*

Similarly, Amal mentioned dishonesty as she wrote in her reflective essay:

*It [online quiz] allows cheating between students.*

In addition, the on-campus online quiz was preferred to avoid trouble with internet connectivity, as reported in Basmah's reflective essay:

*I would prefer to have the online quiz on-campus so the lecturer will be informed in the case of Internet disconnection and have the problem solved promptly.*



This result shows that offering online quizzes in an unmonitored environment whether off-campus or on-campus affected the credibility of the gained scores. The use of online quizzes puts more emphasis on the essential need for well-prepared questions and an appropriate environment that helps to prevent cheating and offers credibility in assessment.

- **Face-to-Face Instruction**

Most of the students (86%) reported in focus groups that one of the advantages of blended courses is to cut the routine of attending face-to-face lecture classes every week. Face-to-face class time was described as a *boring* learning environment in reflective essays and interviews. This finding is consistent with the study of Armbruster *et al.* (2009) that students of traditional lecture-based courses had poor attitudes and evaluated lectures as *boring*. The following excerpt from Abrar's interview expressing her feeling towards face-to-face class time:

*We feel bored from attending classes every day... so studying from the home via e-learning offers us a kind of a break from school. I really appreciate this when I have a class at noon.... I am very pleased with my progress.. I feel that blended learning is very flexible and suitable for me... If it is the week of the online learning then I do not come to the school on the day of the blended course.*

This quote indicates that the students are happy that they do not come to school on a daily basis. I noticed, during the observation of the face-to-face instruction, that the students have a passive role in class time; they attend the classes to listen to the lectures only and are not offered chances to participate. This seems to be boring for some students because they are not motivated and encouraged to be engaged in the lecture. This negative perception of lecturing supports the arguments of the pedagogical experts who call for improvements in university teaching through using active learning (Felder & Brent, 2009). Studies have shown that active learning increases both student

motivation and engagement (Gauci *et al.*, 2009). In Saudi Arabia, particularly at King Saud University, there has been a recent movement towards an approach that encourages active learning. In 2009, a number of workshops about active learning were offered to lecturers by international experts in pedagogy under the arrangement of the Deanship of Skills Development at King Saud University. Such workshops encourage the shift to active learning in face-to-face class time through a thorough orientation of its positive effect on the learning process. Significantly, lecturers will need more time for preparing active learning activities, which could be a challenge for some lecturers and delay the adoption of this approach. In addition, preparation for the resistance of some students who may not accept this shift is another challenge facing lecturers aiming to use active learning (Felder & Brent, 2009).

Moreover, the use of technology in teaching becomes one of the means that can enhance student's engagement in face-to-face time. Supporting this view, Prensky (2005) states that one aspect of Higher Education in the twenty-first century is that students lack engagement and motivation in traditional learning because many of them are *digital natives*. Prensky (2005) describes today's students by saying, "They are native speakers of technology, fluent in the digital language of computers, video games, and the Internet" (p. 8). He urges the use of technologies in teaching and gives example of how presenting algebra instructions in a game format could help students to learn more quickly and effectively. Simulations, videos, and PowerPoint presentations are simple examples of using technologies today. The infrastructure for these tools has been given more consideration in Saudi universities these days. For example, King Saud University has assembled one thousand smart lecture halls. These smart halls include technical tools that facilitate the use of technologies in teaching. The smart halls include an interactive/smart board, projector, and e-podium. E-podium is an electronic device with

particular software that enables the lecturer to control all of the hall technical elements such as the microphone and video conference services. Certainly, such technologies will require extensive training for the lecturers and will require an evaluation of its effectiveness.

Moreover, various devices, such as the smart phone and iPad, are becoming tools for innovations in learning mobility. As discussed in Chapter three, Saudi undergraduate students have a positive perception towards using mobile technologies in enhancing communication and learning (Al-Fahad, 2009). The tools of mobile learning are expected to influence the delivery of data and the engagement in the face-to-face learning environment. For example, learners would be able to use their devices in their participation of in-class activities, which could enhance students' engagement. Digital participation in-class could be used instead of paper or verbal participation or being a passive learner. Hopefully, this will address the reported *boring* learning environment in-class and challenge the digital natives. However, this will require time to be experienced in learning environments in Saudi Arabia. Extensive research and training for both students and lecturers will be needed. Lecturers need to “pay attention to how their students learn, and value and honour what their students know” (Prensky, 2005, p. 9). This study emphasizes the opinion that today's students require innovations in instruction either through adopting active learning strategies in class or by using technologies in teaching.

- **Digital Materials**

In respect to online learning, students were required to study every other week from textual digital materials. There are audio materials offered by the National Centre but the students were not encouraged to use them. The textual digital materials were

provided in a PowerPoint format. I observed that some of the PowerPoint documents were decorated with irrelevant pictures. The design of the PowerPoint documents was also criticized by Shatha in her interview:

*I did not like the format of the lecture notes in the PowerPoint slides. I do not like a design that is full of flowers and pictures; so I just get the points from the slides then learn from the text book.*

This finding indicates that the design of the material can have an impact on student's motivation and satisfaction. The students are perceptive of the professional use of PowerPoint. New generations expect their lecturers to use new technologies, as indicated by Turoff (2006), but this result illustrates that professional design of the digital material is a harder challenge.

- **Online Discussion**

Each blended course required the students to participate in four online discussion topics which were posted by the course lecturer. The participating students were critical about the choice of the topics of the online discussions and the poor interaction with their peers and lecturers. During the interview of Norah, the topics of online discussion that caused repetition in answers were criticized. As she said:

*The topic that was posted by the lecturer forced me to get the answer from the textbooks... which meant that all of my peers posted the same answer and this resulted into duplication of the posts by most of the students.*

This finding highlights the importance of a good choice of online discussion topics and reinforces Vonderwell *et al.*'s results (2007) that topic selection should not lead to repetition of the same answer in the discussion. The repetition was clearly observed in the online discussion with a topic posted in an Islamic Studies course. The students

were asked to discuss a topic which led them to use only materials from the text book. I noticed that most students posted identical messages with few changes in formatting. There is excellent potential for facilitating reflections and dialogue if the topic is presented in a way that allows reflection and encourages critical thinking.

It is expected that the discussion would promote critical thinking and reflection while offering rich space for dialogue. However, online observations showed that students encountered no feedback from their lecturers. The majority of the online discussions showed that students did not have enough encouragement from their lecturers to enable effective reflection and interaction. For example, a topic from an Arabic Language course was posted for the students to identify the grammar errors in a paragraph according to their course content. Consequently, all the posts of the students were similar with no interaction with the teacher. It is likely that the activity was a simple digital version of a written textbook activity. The only difference is that it was posted on a website or in an electronic file without engaging in any discussion or dialogue. Although, an online learning environment is perceived by several studies as a good opportunity for promoting interaction and dialogue in education (Salter *et al.*, 2001; Raleigh, 2000; Wegerif, 2007), no dialogic interaction was observed in online discussions of this study. Recent research views dialogue as an essential element of online learning that has the potential to promote general learning skills, especially the skills of creativity and learning to learn (Wegerif, 2007). Online discussion is identified as a facilitating tool for the acquisition of higher-order thinking skills (Wu, 2004). Lack of dialogue in online learning environment has a negative effect on student opinions of blended learning.

### 5.1.3.6 E-Plagiarism

This study demonstrates the lack of understanding of plagiarism among students. Employing online learning offers rich resources that may be easily copied which can result in e-plagiarism. From my observation, students copied statements from the Internet and from their peers' messages and posted them under their names. In a focus group, the students reported that they did not see any problem in copying others' words. During a focus group, Afaf said:

*I do not have time to write my own opinions so I just copy from my peers' participations and post it under my name.*

This student blamed the shortage of time. However, from my online observation, the topics of the online discussion were not challenging. The students were expected to be familiar with the posted topics as they were either part of their course contents or most probably discussed in society at large. For example, the students were asked to post their opinions about coping with marriage and study. Moreover, two students stated that the lack of writing skills is a possible contributing factor to plagiarism. During a focus group, Safia said:

*I think that poor writing skill is one of the causes of using others' words [plagiarism].*

My experience of being a lecturer in Saudi University has enabled me to observe the writing practice of undergraduate students who rarely employ analysing or sourcing. It is noteworthy that Saudi undergraduates have not been guided on how to refer to other sources and how to avoid plagiarism. In addition, they have not been exposed to plagiarism policies and regulations, therefore they do not take into consideration the implications of plagiarism. In the next section, the view of lecturers towards e-plagiarism will provide more insights about this challenge in Saudi education.

## **5.2 Lecturers' Perceptions towards Blended Learning**

The perceptions of the lecturers towards blended learning are demonstrated in this section. The three major categories are: lecturers' understanding of blended learning, their views of the advantages of blended learning and the challenges that they encountered. The advantages of blended learning category were classified into eight sub-categories and the challenges category was classified into sixteen sub-categories, as shown in Table 5.2. A few of the sub-categories were similar to those identified by the students, as shown in Table 5.1. The similarity and differences in the students' and the lecturers' perceptions towards these sub-categories are discussed in Chapter six. Some sub-categories emerged in more than one data collection method, which emphasizes the importance of that category. For example, student engagement can be considered as a major advantage that was emphasized by the participants.

Table 5.2: Categories developed from Lecturers' Perceptions.

Categories	Data Collection Methods			
	Diary	Interview	Focus group	Observation
<b>Understanding Blended Learning</b>	✓	✓	✓	
<b>Advantages of Blended Learning</b>				
Increased Acceptance of Online Learning	✓	✓	✓	
Flexibility & Accessibility	✓	✓		✓
Saudi Females and Culture		✓		
Pedagogy Improvement				
Variety of Instructional Methods		✓		✓
Increased Creativity		✓		
User-Friendly LMS Tools	✓	✓	✓	
Student Engagement	✓	✓	✓	✓
<b>Challenges of Blended Learning</b>				
Internet On-campus for Lecturers		✓	✓	
Culture and the Internet		✓		
Management Strategies for Resistance		✓	✓	
Lack of ICT Skills	✓	✓	✓	
Course Subject		✓		✓
Pedagogical Issues				
Course Redesign		✓		
Online Discussion		✓	✓	✓
Group Capacity	✓	✓	✓	
Course Evaluation				✓
Infrastructure and New LMS Features	✓	✓		✓
Study Dependency		✓	✓	
Ethical Consideration				
Authenticity of Internet Information		✓		
E-plagiarism			✓	✓
Intellectual Property Rights		✓		



### 5.2.1 Lecturers' Understanding of Blended Learning

All of the participating lecturers were asked about their understanding of blended learning and they reported that they had never heard of this term. As mentioned in section 5.1.1, the term *e-learning* is used instead. As discussed in Chapter three, the e-learning involves continuous changing technologies while blended learning emphasizes the face-to-face instruction as well. Some of the participating lecturers have been teaching blended courses for two semesters and were not introduced to the term *blended learning*. If they had researched for this new teaching approach using Arabic language as expected, they would not realize that it is called *blended learning* because it has not been used in Arabic literature. Understanding the concept of blended learning could have influenced identifying and employing adequate pedagogical theories in teaching blended courses. Converting regular courses to blended courses means not only converting the contents to be digital contents but also utilizing the strength of both instruction types to promote a successful teaching and learning environment. This could not be achieved without a thorough understanding of the concept of the new learning approach. The lecturers were new to online teaching and the selected model was imposed on them. When the lecturers were asked during the focus group about their participation in the decision of the blended learning implementation, Tahani said:

*At the beginning of the semester, we received the statement that explains the design of the blended course. We were offered a one-week workshop on how to use the LMS, Jusur, then we started to teach the blended courses.*

The previous quote shows that the lecturers had not contributed in the decision of the blended learning implementation. The lecturers were just informed of the decision and the model for blended courses. This caused some cases of resistance from lecturers as discussed in the challenges section.

The administration presented the blended format as a solution for the increase in the number of students in the College. Although the pedagogical advantages of the concept of blended learning are expected to be part of the reasons for introducing blended learning, these influencing factors were not mentioned to the lecturers but were discovered by the lecturers from their experience. The lecturers' satisfaction consequently affects their students' satisfaction. Kaleta *et al.* (2005) stress the importance of managing students' expectation and the fact that lecturers should introduce the rationale of blended learning to their students. This would not be achieved unless the lecturers understand the concept themselves.

Considerably poor understanding of the concept possibly has a strong impact on lecturers' acceptance and views. For example, Haifa was very ambitious but her little knowledge of blended learning made her cautious. She wrote in her diary:

*I am ambitious but cautious. I do not know if this will compete with traditional teaching and learning.*

This result indicates that the lack of understanding of the enhancement promoted by blended learning slows down the utilization of its features and the anticipated achievements in blended learning.

### **5.2.2 Lecturers' Perceptions of the Advantages of Blended Learning**

Most of the participating lecturers (86%) acknowledged the positive effect of blended learning on the development of Higher Education. They expressed a positive impression of blended learning and appreciated its flexibility, pedagogy and technical skills improvement. It was described as a suitable type of learning for Saudi society. The identified advantages are presented in the following sections.

### 5.2.2.1 Increased Acceptance of Online Learning

Distance learning in general and fully online learning in particular has not been yet accredited in Saudi education. The lecturers reported that the implementation of blended learning broke the ice and introduced an acceptable type of learning that utilizes online learning, as long as it retains face-to-face instruction. For example, Haifa wrote in her diary:

*I can conclude that e-learning [blended learning] does have a positive impact on society. People recognize the importance of engaging technologies in learning.*

This lecturer illustrated that blended learning has the potential to influence the society's appreciation of the advantages of engaging technologies in learning. The resistance to change starts to dissolve when the society understands that online learning is an effective type of learning. Although the use of the computer and the Internet has been increasing in various aspects of life, using them in learning has extensive advantages. It was frequently reported in the interviews and the focus group that computer illiteracy is being resolved by employing blended learning. For instance, Latifah said in her interview:

*It is important that students recognize the importance of using a computer.. a person who does not use a computer can be considered as 'illiterate'.. Now when students are e-learners they use the Internet in a better way.*

This quote reflects the views of the students that the online learning promotes an opportunity for improving computer literacy. Furthermore, the lecturer highlighted another advantage, which is expanding the use of the Internet, especially for learning. However, being an e-learner does not guarantee a better use of the Internet if there are

no guidelines on the ethical use of the Internet in education. The need for these guidelines is further discussed in the challenges identified by the lecturers in section 5.3.

#### **5.2.2.2 Flexibility and Accessibility**

The findings illustrate that flexibility of blended learning is an advantage for lecturers. The lecturers also mentioned that blended learning offers students an environment that promotes the advantages of online and traditional learning. In her interview, Latifah compared blended learning to traditional and fully online learning by saying:

*Blended learning is better than distance learning in order to help students to control their studying.... Blended is better than traditional because it facilitates collaboration through online discussion and allows flexibility in choosing topics of online discussion.*

Latifah expressed her understanding of blended learning as a valuable approach that promotes flexibility in distance learning and sufficient guidance in traditional learning. This result is consistent with the argument of Young (2002) and Graham *et al.* (2003) that the most common purpose of blended learning is the potential of merging the best of traditional learning and online learning.

Moreover, teaching blended learning was described in the diaries and the interviews as *flexible, easy, and suitable*. For example, Haifa wrote in her diary:

*I feel that it [blended learning] is very flexible and suitable for me because I complete my online duties week by week and do not procrastinate. I do not feel any overloading.*

Nouf explained her experience by saying in her interview:

*I did not have any difficulties because I uploaded all the online activities at the beginning of the semester and each activity becomes visible to the students on a specific date according to the course syllabus.*

The two lecturers expressed their job satisfaction as they were able to achieve their teaching duties on time and with flexibility. The features of the LMS influenced their experience of time flexibility. Nouf's quote illustrates that she prepared the online course material, uploaded it, and was able to do this at a specified date and time for students' visibility, which gave her more time for moderating the online environment during the semester. This finding indicates that the lecturer, who had good levels of time management, appreciated the flexibility of blended learning. In general, flexibility and accessibility offered by blended learning is highly appreciated by the lecturers. These findings agree with the lecturers of the University of Wisconsin experience of the flexibility of the blended model. They also indicated that accomplishing course learning objectives within a blended course is more successful than within a traditional course (Garnham & Kaleta, 2002). Moreover, some lecturers identified that the flexibility of blended learning is ideal for Saudi culture, as explained below.

### **5.2.2.3 Saudi Females and Culture**

While the suitability of blended learning for the Saudi female students was raised by married students, the lecturers identified transportation as an aspect of Saudi culture that supports the use of blended learning for Saudi females. For example, Nouf said in her interview:

*I think blended learning is suitable for our society for many reasons, in particular, the issue of transportation to the university.*

Nouf illustrated that blended learning offers a convenient learning environment to Saudi females who have a limited access to transportation. One social issue that is unique to Saudi females and which demonstrates the advantages of blended learning in Saudi society is the lack of a reliable transportation system for female students. University buses are offered for females but this service only facilitates transportation for a limited

number of students. Women are not allowed to drive in Saudi Arabia and are therefore dependent on males for transportation. The only public transport is a few mini buses and some private taxis. Culturally, this public transportation is not acceptable to be used by females, except in an emergency. Consequently, students are dependent on their male relatives or their family private drivers to provide transportation to college. However, not every family can afford a driver which raises an obstacle for females endeavouring to continue their education, particularly in rural areas. For all of the above reasons, the lecturers indicated that blended learning offers Saudi society an opportunity to develop female education in convenient ways that sustains culture and tradition.

#### **5.2.2.4 Pedagogy Improvement**

The findings show that 57% of the lecturers have experienced pedagogy improvement in blended learning. With the circumstances of having blended learning imposed on them, the lecturers found that blended learning was a means for pedagogy improvement. This finding has probably assisted the lecturers to overcome any negative impression of not being part of the decision for the implementation of blended learning. Recognizing this valuable advantage of blended learning has given more satisfaction to the lecturers in this new teaching environment. The study shows that blended learning was found to facilitate the practice of a variety of teaching methods and consequently, teaching creativity as explained in the following sections.

- **Variety of Instructional Methods**

It was observed, as well as indicated during the interviews that blended learning encourages the usability of various types of instructions and delivery mode. When Latifah was asked to explain the positive and negative sides of blended learning, she expressed her satisfaction of teaching blended courses with a variety of techniques:

*It is very interesting. It is different than the traditional teaching despite the obstacles and challenges. Regarding pedagogy, I feel that my teaching methods are improving I do not prefer the way of lecturing so I like mixing online instruction with in-class lecturing.*

The previous quote demonstrates that lecturing is the main strategy for teaching at the University, which agrees with Graham's statement (2006) that lectures are generally the usual method of teaching in Higher Education. Although this lecturer indicated that she did not feel comfortable with lecturing, she had only practiced lecturing method during face-to-face class time.

In addition, the previous lecturer's quote indicates that integrating online instruction in blended learning has facilitated the practice of other teaching strategies. The lecturer realized the need for innovations in teaching strategies and found that in blended learning. She understood the challenges of the new approaches but she is keen to improve her pedagogy. She has experienced the transition from teacher-centred to student-centred strategies. For example, the lecturers were able to offer a discussion strategy in the online environment which was not used in class time. This finding is consistent with Dziuban and Moskal's (2001) survey results at the University of Central Florida. However, I observed that the potential for using other teaching strategies in the online environment, such as collaborative learning and projects were not employed by the lecturers.

- **Increased Creativity**

Some lecturers reported that blended learning has the potential to improve pedagogy and increase skills development which has helped them to be more creative. A general definition of creativity is, "the process of producing a new whole out of existing elements by arranging them into a new configuration" (Downing, 1997, p. 4). It was

reported that creativity is encouraged by this new teaching environment, as Deemah said in her interview:

*The human being is usually resistant to new things but as soon as he/she gets familiar with it, she/he can use in a creative way. This is what happened to me. Every semester I become more enthusiastic to increase my skills in teaching using the e-learning [blended] method.*

Deemah expressed a positive experience towards teaching blended courses. She realized that by adopting blended teaching she will be able to teach creatively. As she became more familiar with using online activities in her teaching, she recognized the potential for creative teaching using these elements. Online activities, including online quizzes and online discussions, gave the lecturers an opportunity to use student-centred approaches which are not yet commonly applied in face-to-face teaching in Saudi Arabia. This is probably why it was acknowledged that particularly the online elements encourage creativity in teaching.

Creative teaching is identified as “trying to improve, in such a specific way that not even originality is important, but only by thinking through the key ideas in the text or lesson and identifying the alternative ways of presenting them to students” (Fernando, 2007, p. 21). In this study, the design model of the blended courses required using the online discussions only to assess the discussions of selected topics by the lecturers. The lecturers realized the potential of this tool and added more threads to facilitate creative and effective teaching. Lecturers have used online discussion to post lecture notes, make known problems related to corrupted assignment files and to acquire student proof of downloading lecture notes. In addition, more threads were dedicated for students’ enquiries and complaints. One of the lecturers tried to use different strategies to encourage student engagement by dividing the students in groups for online discussion.



However, lack of interaction facilitation and collaborative activities were observed in most online discussions. This finding shows poor adoption of constructivism theory and higher-order thinking which are identified as an easy way to creative and effective teaching (Cornish, 2007). Therefore, there is a need for training in innovative teaching methods to enhance learning and develop creative teaching. Downing (1997) asserts that “creative teaching is a complex skill and cannot be learned in a short time” (p. 3). Creativity involves “*the ability* to imagine or invent something new; *the attitude* to accept change; and *the process* to continue to improve” (Harris, 1998 cited in Mintu-Wimsatt, Sadler & Ingram, 2007, p. 325). Simplicio (2003) points out that lecturers work to use creative methods of teaching as a result of a firm understanding of these strategies. Significantly, creativity in teaching was experienced in this study within one typical blended course design model. Thus, more creativity is expected when the lecturers participate in designing their own blended courses.

#### **5.2.2.5 User-Friendly LMS Tools**

The participating lecturers were very positive about most of the features of Jusur. They appreciated the use of online quizzes, which reduced their workload via automatic grading and offered immediate assessment of students. In general, the system was considered a useful and easy to use tool by most of the lecturers who had good computer skills. For example, Haifa wrote in her diary:

*Actually, the system is very organized and it is clear that there has been considerable effort in its development.*

Similarly, Latifah wrote in her diary:

*E-learning has helped me in reducing some teaching duties [in-class] and adding other types of duties, such as online interaction.*

Latifah added that blended learning does not require extra time for online teaching because it assists in reducing time for other activities. Moreover, the lecturers have experienced the flexibility offered by the assignment submission electronically. They found that eliminating the storage for hundreds of assignments' papers is an advantage of integrating the online environment with traditional instruction. Electronic assignment submission is identified as an advantage for both lecturers and students. For example, Haifa said in her interview:

*I feel that electronic assignment submission is a good tool... the electronic submission is better because I do not have to keep hundreds of papers on my shelves.*

Furthermore, it was noticed that the majority of the lecturers became familiar with a few of the LMS tools such as uploading and downloading files, posting messages on the online discussion and preparing online quizzes. Some lecturers attended a workshop about the LMS Jusur and the features that can be utilized in online teaching. However, Nouf said in the focus group that she was not offered the opportunity to enrol in these workshops and because she had good skills she learned the LMS by herself and with the assistance of her colleagues:

*I did not enrol in the workshop that was offered at the beginning of the program implementation because I started to teach blended courses last semester and there were no workshops offered. I just learned by myself and from my colleagues.*

Significantly, some lecturers (75%) indicated that blended learning allows an ongoing opportunity to improve their IT skills. None of these lecturers had experienced being an online lecturer prior to teaching blended learning. For instance, Rubaa said in her interview:

*Every semester I become more enthusiastic to increase my IT skills for the sake of e-learning teaching.*

This quote shows that the lecturer acknowledged how blended learning enhanced her computer and Internet skills, and she endeavours to improve her skills in order to develop her teaching strategies.

#### **5.2.2.6 Student Engagement**

The findings indicate that integrating technologies with traditional teaching and learning facilitates the engagement of the students in the learning process. It was frequently indicated by the lecturers in the focus group, the interviews and the diaries that online activities enhance engagement. For example, Deemah wrote in her diary:

*It is very wonderful that e-learning increases the engagement of students in activities and encourages the use of technologies*

This is consistent with some students' views in regard to behavioural engagement. Two of the lecturers were impressed by their students' cognitive ability that was not recognized in face-to-face instruction. They remarked that this enabled them to interact with their students better and understand their thinking. For instance, Tahani said in her interview:

*Among its advantages is the increase in interaction between lecturers and students.*

More explanation was provided by Haifa in her interview:

*Blended learning allows me to interact with my students, understand their thinking and provide them with topics to discuss. In the general thread of my course, I notice that the students post useful information and this proves that they search useful sites on the net. It is a very big step that the students get used to utilizing the Internet and engaged in their learning.*

This result indicates that students' participations in the online discussions enhanced student learning. It was observed and reported by some of the lecturers that online

interaction supports face-to-face interaction by providing an opportunity for students to express their thoughts with more confidence. Most participating lecturers appreciated that blended learning facilitates interaction with their students but online discussion observation indicated that there was a lack of feedback from the lecturers, which resulted in little interaction. Haifa, a lecturer of an Arabic Language blended course, used to reply to her students' posts in the online discussion to encourage interaction. In addition, linking the face-to-face and the online environments was observed in her blended course. She used to comment in-class on the students online participation and it was noticed that her students' participations in the online discussion was very high. This supports the findings of Stacey and Gerbic (2008) that commenting on online discussion in face-to-face class time is a very effective strategy in blended courses.

### **5.2.3 Lecturers' Perceptions of the Challenges of Blended Learning**

The participating lecturers reported on various challenges of blended learning. Infrastructure and lack of skills were identified by the students and lecturers, while ethical consideration was identified by lecturers only. They also indicated that the LMS requires further improvements as presented in the following sections.

#### **5.2.3.1 Internet on-campus for Lecturers**

There is a lack of sufficient Internet availability for lecturers on-campus. The lecturers want to invest their time on-campus as they are required by the college administration to be on-campus from 8:00 to 2:00 p.m., regardless of their lecture time. They indicated that they prefer to use their own laptops and complete all online tasks while they are at the college in any location. Therefore, they have submitted a request for Wi-Fi access on-campus. The administration has promised to provide this service in the near future; the intranet was available in some faculties' offices with frequent disconnections.

Therefore, the lecturers requested flexibility in daily attendance. This challenge was discussed in the focus group, as Tahani said:

*The administration promised some flexibility in our daily attendance. There is no Internet access in the lecturers' offices.*

Recently, universities have started to provide Internet access at the lecturers' offices, however, the administration needs to be flexible in regard to the attendance of blended courses lecturers at the college during their online teaching times. These findings reinforce Masalela's results (2009) that the technological infrastructure and the availability of technical support affect the achievement of the blended course lecturer. The Internet access at the lecturer's offices is an essential means of support.

### **5.2.3.2 Culture and the Internet**

A few lecturers (43%) raised some concerns about Saudi families' norms and rules in regard to Internet availability at home. When I asked Haifa in her interview about her view of how blended learning fits into Saudi society, she said:

*I will tell you what would concern females.. It is the live chat.. females do not want their voices to be on the Internet..both students and lecturers... she will say people might record my voice.. As far as I know, the college was going to employ the live chat (virtual classes) but our society does not accept this...*

This finding raises a cultural issue that strongly influences female education in Saudi Arabia. Culturally, Saudi females do not accept recording their voices for public use. As I observed, all of the available recorded lecturers for blended courses were by male lecturers only. In addition, I found that the participating female lecturers did not encourage their students to use and listen to the available online recorded lectures. The lecturers did not agree with all of the course contents and they did not get the

opportunity to discuss the contents with the lecturer who recorded the lecture. This study raises the issue of whether the Saudi society will accept recorded lectures by females. In addition, there is a need to find strategies that can be followed to enable female students and lecturers to benefit from this technology while maintaining their cultural values.

This finding emphasizes that Saudi culture has an impact on the strategies of implementing blended learning. As discussed earlier, some families are against providing Internet access at home. Supporting this view, Al-Dugiary (2009) reports that a public use of the Internet had negative effects on study performance and family relationships of 61.32% of the students of Princess Noura University in Riyadh. However, it was frequently indicated in the lecturers' interviews that it is strongly predicted that the Internet will be available in all Saudi houses in the near future. For example, Latifah said:

*Maybe we still have some resistance or obstacles ... there are a few students who do not have Internet access at home and this due to their parents' restriction. One of my students said her father believes that the Internet is a bad tool. These cases are very rare, for example, in one of my groups 3 out of 50 students have these situations. Maybe half of them encounter some Internet connection problems such as frequent disconnection or low speed. However, I can say that the Internet is spreading over Saudi homes and families recognize its importance*

As change takes time and the Internet becomes more acceptable as an educational tool, a more positive attitude will develop. A solution offered by Latifah was to give her students extra opportunities to perform their task on campus after she requested from the students' parents a confirmation letter that the Internet access was not provided at home. This required the lecturer to open the lab and accompany the student until she completed her assignments or online participation.

### 5.2.3.3 Management Strategies for Resistance

One of the challenges that faced the college administration was resistance to teaching blended courses. It is noteworthy that lecturers were not involved in the decision of introducing and implementing blended learning. Some lecturers expressed some awareness of blended teaching. They asserted the need for support and training for their extra work and time. In order to encourage lecturers to accept the transmission to blended courses, the administration gave extra payment for each blended course taught. However, some lecturers had concerns about the structure of such payment. This challenge was reported in the focus group and the interviews. For example, Rubaa said in her interview:

*The college administration gives extra payment to the lecturers but the way they gave extra payment was unfair. It was upon the number of groups instead of the student numbers in each group.. Some groups have 70 students and others 20 students and this requires different levels of effort from the lecturers.*

In addition, the administration assigned an Award for Blended Teaching Excellence, which included a monetary sum. This finding seems to support the statement of (Ndon, 2006) that “at least one of the participants indicated that teachers of hybrid model should be paid for the extra time they put in managing the hybrid course” (p. 183). However, some of the lecturers expressed discontent about the way the extra payment and the selection of the Award winner was conducted. They claimed that the criterion was based on the number of groups without any consideration of the number of students in each group. This incentive was not used to encourage teaching blended courses in this present study. These findings reflect the results of Singh and Reed (2001) who recommend a change in management strategies to overcome the resistance to change.

#### 5.2.3.4 Lack of ICT Skills

The findings illustrate that ICT skills influenced the lecturers' views of blended teaching. Skilled lecturers perceived blended courses as a more interesting environment for teaching, which has helped to improve pedagogy. For example, Latifah, said in the interview:

*I have not faced any obstacles. I have good skills in using the Internet. I was used to the Internet before teaching blended courses. I have internet access at home. My computer and internet skills help me to enjoy e-learning.*

Some lecturers were dependent on their colleagues in utilizing the online tools because they did not have the required computer literacy. In addition, it was reported in the interviews that some lecturers resisted teaching blended courses as a result of lack of skills. The following excerpt taken from the interview of Rubaa illustrates this perception:

*Some of my colleagues do not prefer blended courses because they are not familiar with the computer. They prefer lecturing.*

Similarly, Latifah said during the focus group:

*Some of my colleagues do not prefer blended courses [also] because preparing online instruction requires more time from them.*

The latter quote indicates that some lecturers who resist blended courses wanted to avoid spending the extra time required by blended courses. All of the participating lecturers emphasized the significance of training workshops for lecturers in the field of computer applications and e-learning. They recognized the magnitude of the technical skills required for the lecturers. Furthermore, the rapid increase in the innovation of educational tools fosters the need for further development of lecturer IT skills that could facilitate and improve online instruction.



### 5.2.3.5 Course Subject

As discussed before, three introductory courses were chosen for blended learning. The subjects were: Arabic Language, Islamic studies and English Language. The lecturers of the English course resisted blended learning claiming that their students were beginners in English and that online learning would not meet their needs. It was reported in the interview with the English lecturer, Sameerah, that English lecturers had an unsuccessful experience in the online discussions. Sameerah justified her resistance saying:

*[the course]101 English is not appropriate to be a blended course for students because they are beginners. Some of them know nothing in the English language. They only know the alphabet! They do not have the ability to write in English to participate in the online discussions. They do need the face-to-face instructions to learn English.*

The English course lecturers accepted the principle of integrating online instruction with face-to-face instruction. However, they refused to reduce face-to-face time in their Introductory English course because they claimed that the background of the students is poor and they require face-to-face explanation. Some of them used online quizzes and online homework submission service without class-time reduction. In brief, the model of the blended courses was refused for English courses. It was suggested by some lecturers that the model should be determined by lecturers according to their subjects in order to allow the lecturers to increase the percentage of face-to-face instruction as needed.

It is significant that the English subject has rich ESL resources on the Internet. In Saudi Arabia, a Learning Object repository called Maknaz is under establishment by the National Centre for E-learning which would facilitate capturing the appropriate digital materials for online instruction. Lecturers could select online activities from the web

resources to facilitate learning English. If lecturers utilize online interactive materials that fit the curriculum objectives, they would probably be satisfied with their blended course outcomes. However, further research is recommended to assess the use of blended learning models in teaching English for beginners.

#### **5.2.3.6 Pedagogical Issues**

Several factors were discussed by the lecturers as challenges that affected the pedagogy of blended courses. The identified pedagogical issues were course redesign, group capacity, online discussions and course evaluation. It is noteworthy that the implementation strategy had an influence on these issues, together with the skills and knowledge of the lecturers. These issues are discussed in the following sections.

- **Course Redesign**

Although, the general model was selected by the college administration, the lecturers were responsible for selecting the appropriate course content and converting them to online materials. The digital contents included: Lecture notes presented in PowerPoint slides, online discussions as a tool for online participation, assignment submission, and online quizzes. In the transition to blended learning, the online contents were nothing more than an electronic format of paper materials being digitalized. The lecturers stated that they converted the learning material into PowerPoint slides collaboratively. This has probably helped less experienced lecturers to avoid redesigning pitfalls. However, Rubaa affirmed that selecting the suitable parts of the curriculum to be digitalized and offered in online instructions has to be reconsidered. During her interview, she complained about some topics that were converted to online material and said:

*There are some topics that are not suitable for online learning. These topics have to be given as a lecture in-class*

The type of online activities influences the decision of converting contents to achieve a course objective. This result asserts that the lack of experience in instructional design influences the efficiency of the implementation. The findings indicate that the lecturers emphasized the importance of effective course redesign. For example, Deemah said in her interview:

*Also, lecturers need training in instructional design. We were not introduced to any workshops related to pedagogy or instructional designs. This is essential for e-learning lecturers.*

Dziuban *et al.* (2006) indicated that lecturers' support for course redesign affects the successful blended learning experience for students. Designing blended courses requires sufficient experience in instructional design.

- **Group Capacity**

Some of the participating lecturers indicated that assessing students' participation in online discussions and electronic assignments required extra time from blended learning lecturers. For example, Haifa remarked on the difficulty of moderating a large number of students in the online instruction:

*Blended courses are a good choice, but I prefer to have small numbers in the groups. This semester I have 6 groups, each with 45 -60 students, and last semester 60 - 80 students. E-learning is very effective - using the announcements and increasing interaction and enabling online queries, but the problem is to manage large numbers of students.*

The participating lecturers of the focus group stated that it was time-consuming with interaction and feedback online. They argued for lowering the group capacity to maintain better moderation. This opinion was recommended by Greener (2008) which is opposed to other studies (Vaughan, 2007; Sharpe *et al.*, 2006) that recommend the use of blended courses to enhance learning in large classes. It seems that the lecturers

are not aware of any best practices of blended courses for large groups, such as assigning a facilitator for online discussions or eliminating the assessment of the online discussions.

- **Online Discussion**

Although the participating lecturers perceived online discussion as a useful tool that can facilitate interaction more effectively, I observed that there was no feedback from the lecturers that could facilitate interaction and increase motivation. The challenge of using online discussions successfully was frequently mentioned in the focus group and the interviews. For example, during Latifah's interview, she reported on the challenge of poor interaction in online discussion by describing her students' feelings:

*Students had motivation at the beginning of the semester then the motivation decreased because they claimed that there was not enough collaboration and interaction.*

Deemah stated that she encouraged her students to post reflective messages. However, she did not clarify her assessment approach to her students in the course syllabus. She said:

*I posted four assessable topics. I give 2 points on each posting from the curriculum and 3 points on each posting from outside the curriculum. If a student just replies with 'thanks, it is a good topic' she gets 2 points out of 3 and I do not evaluate the general thread.*

It was observed that the lecturers were not following clear techniques on how to facilitate interaction in online discussion. Two lecturers mentioned that one possible future strategy for addressing this challenge would be to employ a collaborative learning approach in online discussions. Haifa and Rubaa pointed out that the structure of the course online discussion has to be improved to meet student expectation and promote a

successful studying experience. To illustrate their opinions, following are excerpts from their interviews. Haifa said:

*Next semester I will try a new approach in using online discussion. I will not use general threads which confuse students and do not facilitate interaction as student posts many topics and do not discuss peers' posts... I will choose topics out of the curriculum and choose groups in the discussion.*

While Rubaa said:

*Next semester I will put a specific thread for the course syllabus and guidelines for successful study. I believe that interaction with students is one of the advantages of blended learning.*

This result shows that the structure of online discussions has to be given more consideration, which raises a challenge for blended learning lecturers. It also indicates that the structure of the online discussion affects student satisfaction and participation, which is consistent with Vonderwell *et al.* (2007) results. The lecturers of this present study aimed to facilitate online discussion in different ways. However, they need new teaching skills to foster effective online communities (Aycock *et al.*, 2002).

- **Course Evaluation**

Feedback from students could assist lecturers to improve the course curriculum as well as teaching strategies. The participating lecturers had not given any consideration to course evaluation except lecturer Rubaa who utilized online discussion for surveying her students' opinions on e-learning. That survey showed that most of the students posted positive perceptions with some concerns about the structure of the course online discussions. The students' names were visible to peers, which might have affected their opinions.

Moreover, the lecturers received two verbal evaluations from students. The first was the proof of the student's online attendance. This was required as a posted message in the forum on a specific day of the online learning week. Students complained that there was Internet disconnection during the day of the required posting of attendance. The second issue was related to the assessment of online discussion. Some participants emphasized that not all issues discussed in the online discussion were appropriate and that they should not be assessed. They argued that LMS should be used for assignment submission, online quizzes and not for assessment of online participation in online discussions. Considering course evaluation based on student feedback would therefore help to improve course redesign.

Furthermore, the administration did not conduct a course evaluation of the blended courses using student feedback. It was expected that various factors would be assessed, but the administration only assessed the delivery of the online activities by the lecturers. An evaluation was conducted through online observation by the IT staff and presented to the Vice-Dean verbally. As an observer, I attended this evaluation meeting between the Vice-Dean and the lecturers. The Vic-Dean discussed the findings of the evaluation with the lecturers, commented on the slow progress of some of the blended courses and urged the lecturers to improve their delivery in the online environment. The meeting gave an opportunity to the lecturers to give feedback on their experience to the administration.

#### **5.2.3.7 Infrastructure and New Feature of LMS Tools**

The findings show that infrastructure was considered by the lecturers as one of the challenges of blended learning. Some comments from the lecturers associated with technical troubles were given to the development staff of Jusur at the National Centre

for E-learning and were addressed in a short time. For example, the difficulty of accessing different version of Microsoft Word of an assignment by lecturers was addressed by providing software that enabled the conversion of received files.

Moreover, further development that could facilitate online instructions was suggested. One lecturer mentioned that there were limitations in some of the LMS functions. For example, tools that enable tracking student's access to the course webpage were requested by some lecturers who wanted to evaluate students' engagement in online learning. In addition, one of the lecturers requested a feature that would give lecturers extra authority to edit the messages posted by the students. This was because she found some students' posts were out of the scope of the discussions and she was not able to edit them or delete them in order to keep the focus of the discussion on the selected topic. In addition, it was suggested that a feature be added that provides automatic assessment for selected assignments, such as multiple choice tasks.

Furthermore, due to the recent transmission to e-services in the University, the lecturers are now required to submit the student grades via the University online system. Currently, the LMS is not linked to the University system, thus the integration of the Gradebook tool in the LMS with students' university accounts would decrease lecturers' workload.

Although using the features that facilitate effective learning, such as email, is essential, it is noteworthy that it was not used by most of the lecturers to contact their students. Significantly, lecturers need to recognize the proper use of individual features of the LMS. The observation demonstrated that online discussion had been used by lecturers for features that are offered by other tools, such as uploading lecture notes. Guidelines

and training that would assist the lecturers to use the LMS properly would facilitate effective teaching.

Moreover, it was reported by the technician that some of the PCs in the Lab were infected with viruses and could not be used by students due to the browsing of inappropriate websites. To prevent this, the students were asked to use the PCs in the lab only for study purposes. This result indicated that sufficient antivirus software has to become a priority for the technical support staff. In addition, strict guidelines for using the computer labs have to be maintained.

#### **5.2.3.8 Student Dependency**

All of the lecturers recognized the magnitude of study skills required for blended courses. They frequently reported their concern about the students' abilities to manage independent learning in the focus group and the interviews. Significantly, students are likely to be influenced by their previous learning experiences. They were used to being part of a teacher-centred learning environment during their high school. However, they need to be responsible for their learning and play an active role in blended courses. Some lecturers were concerned about the students' skills. For example, Deemah said in her interview:

*We should train our students in online learning and guide them on how to be independent learners. It is not good that a student starts blended courses without any training. Also students need to understand where to go if they face any technical problems.*

This quote reflects the importance of a training course for students. Another lecturer suggested the preparation of the student for e-learning during one semester prior to enrolling in e-learning courses. Kaleta *et al.* (2005) emphasize that lecturers must assist



students to be independent and develop the relevant skills required for a blended learning environment.

Furthermore, the lecturers have some concerns about the impact of blended courses on decreasing their students' performance. The lecturers referred this low performance to missing the online activities, which is 40% out of the final grade. They also indicated that students who failed in blended courses, lacked studying skills, self-discipline and failed to understand the weight of online activities in blended learning. The following excerpt was taken from Nouf's interview to illustrate this perception:

*I think the problem we face is from the careless student who does not perform her tasks because she does not want to study in general, not because it is e-learning. We should not blame e-learning. Students do not believe that the missing online activities of causes failure in the class. They think that e-learning is just a trial program that does not affect their grades*

It is clear that the lecturers were not aware of the effect of teaching strategies on students' performance. The previous quote highlights another challenge related to the implementation strategy which is that students need to be informed about the importance of participating in online learning.

Moreover, the lecturers were asked by the College to record proof of online attendance during the week of online learning. The students were required to access the course online discussion and reply to the thread that included that week's lecture notes in order to affirm their download of the lecture file. For example, Deemah expressed her view of this requirement during an interview by saying:

*I think it [online attendance proof] controls students.. they need a special way of controlling their studies. This also proves that the student was*

*able to download the lecture notes so she does not come on the day of the exam and say she was not able to download the file.*

As explained in the course evaluation section, there was a discussion during the Vice-Dean meeting about some students' complaints regarding the proof of online attendance. Some of the lecturers considered students' inability to access the Internet on the specified day and extended the requirement for online attendance proof from one day to one week. However, other lecturers did not respond to the students' complaints, which resulted in a decrease in their students' attendance points and consequently their scores.

#### **5.2.3.9 Ethical Considerations**

The lecturers were more concerned about ethical issues related to blended learning than the students. The following sections present the results of the lecturers' awareness of three ethical issues: authenticity of the Internet information, e-plagiarism and intellectual property rights in respect of the lecturers' digital products.

- **Authenticity of the Internet Information**

The Internet offers a large quantity of information, varying in quality and reliability, for various purposes such as informing and persuading. The results of the lecturers' perceptions show that the authenticity of the Internet information as a source for the students was a challenge. This issue was raised by Nouf in her interview:

*Unfortunately, in our society we award quantity not quality. When a student copies an article from the Internet to post in the online discussion, she does not care if it is authentic or not.*

This quote indicates that evaluating students' work on quantity instead of quality was one of the reasons that led the students to use unauthentic information. This result puts

more emphasis on the need for assessment of quality. As mentioned previously, the use of the Internet as a research resource has to be given more attention and student guidelines are needed on the use of the Internet for academic research.

- **E-Plagiarism**

As discussed, the observation of the online discussions showed that the students searched the Internet for an appropriate paragraph, copied it and pasted it under their name. The findings indicated that the lecturers were aware of this e-plagiarism among their students but that they did not act to prevent it. Most of the lecturers indicated that this issue would put pressure on the students as they were starting to engage in this new learning environment. When the lecturers of the focus group were asked if they had discussed plagiarism with their students, Nouf replied:

*No, because they do not know where they need to get the information from. I do not want to complicate this new learning process. If I told them they would not participate in the online discussion. The students do not want the lecturer to put obstacles on their way or they will not participate.*

Deemah, who is also a graduate student, explained how plagiarism is viewed in undergraduate studies and graduate studies in the Saudi education system:

*In undergraduate studies, there is no consideration of plagiarism. The only thing the lecturer stresses is the list of references but in graduate studies there is more consideration of plagiarism.*

This finding illustrates that there is a deficiency in Saudi universities' policies and regulation of plagiarism in undergraduate studies when compared to graduate studies. There are no university documents about plagiarism and its consequences. There is only one general statement in the graduate studies guideline about the importance of citation. This reflects Stover and Kelly's conclusion (2005) that plagiarism is diagnosed among students because they do not differentiate the categorizations of "cheating" or

“plagiarism”. Thus, the lack of guidelines on plagiarism and its consequences have to be addressed.

- **Intellectual Property Rights**

Because the blended courses are introductory courses and have a large number of groups with one final exam, the supervisor of each subject agreed with the lecturers on selected parts of the traditional lectures to be replaced by lecture notes utilizing MS PowerPoint. Some lecturers produced the lecture notes by themselves and others produced the lecture notes collaboratively. During her interview, Rubaa drew attention to the copyright in respect to digital materials. She stated that she invested time and resources in developing her lecture notes with PowerPoint slides but that other lecturers used them without her consent. She expressed her concern that another lecturer had used her lecture notes without her permission:

*I invested time and resources developing the lecture notes so it is not fair that others use them without my consent*

It was observed that with the adoption of online learning as a portion of blended learning, there has not been any awareness of copyright of digital materials. This study highlights the crucial ethical element that is associated with online instruction in blended learning. Casey (2006) indicates that copyright and moral right are among the Intellectual Property Rights (IPR) law that affect e-learning content development. Supporting this view, Littlejohn and Pegler (2007) point to *moral right*: the right of the creator of the online educational material and that “the important contribution that electronic learning environments and repositories can make is in keeping track of intellectual property rights” (p. 223).

### 5.3 The Future of Blended Learning in Saudi Arabia

Understanding the perceptions of the future of blended learning in Saudi Arabia is essential in order to provide insights for decision makers. This study shows that the majority of undergraduate participating students (95.5%) are very keen to be enrolled in blended courses in the future. This finding is similar to the results reported by Aycock *et al.* (2002), where the majority of the students of blended courses at the University of Wisconsin-Milwaukee indicated that they would recommend blended courses to others as a result of their positive experience.

The use of technology in blended learning was perceived by the students as one of the modes for educational development. Educational development was frequently mentioned as an advantage of blended learning in reflective essays, interviews and focus groups. The students identified the environment of the blended courses as *innovative* and a *development of this era*. The following excerpt from the reflective essay of Zainab shows her enthusiasm for future blended courses:

*I prefer blended courses and I wish that all my courses were blended.*

Similarly, Afnan wrote in her reflective essay:

*I prefer e-learning [blended learning] because we have to follow the development... we are supposed to have our lectures in new ways such as distance learning, and from home.*

While Amal wrote:

*I think that most people are keen to use technologies and educate themselves. E-learning [blended learning] is the way to develop our skills and education.*

In her interview, Dania agreed with this opinion:

*The system [of blended learning] is very beautiful and innovative. It goes with the developments of this era.*

This shows that blended learning is perceived by the students to be a part of twenty-first century education. It is expected that as more of the digital generation are enrolled in universities, the enthusiasm for blended courses will be stronger in the future. The previous quotes also show that the students believe that learning has to be enhanced by the use of ICT. Supporting this finding, Al-Fahad's study (2009), which was conducted on Saudi female undergraduate students, reported that the students were eager to use the resources of mobile learning- via laptop, mobile phone and PDA. He added that they believed that time and space flexibility would assist better student engagement in the learning process.

In addition, the students highlighted the need for utilizing a blended format in institutes other than universities. As Fatmah said in her interview:

*Development is e-learning [blended learning]. I hope that it is not only offered in universities but in all educational sectors.*

This view illustrates that the participants realized how blended learning could be a valuable approach in other educational areas. This could be technical institutions, which would benefit from using a blended learning strategy for training. Blended learning has been proved as a successful approach for training (Bersin & Associates, 2003).

Furthermore, looking at females' education status in Saudi Arabia, a previous finding shows that blended learning would encourage Saudi females to continue their education. What could also encourage the use of blended learning in female education is the change in the economy and the need for extra family income. To illustrate, under Islamic Law males are responsible for providing for their families. However, with the increasing cost of living in Saudi Arabia, some women have realized it has become

necessary for them to contribute to their family income. Thus, blended learning would encourage Saudi women to continue their education in order to seek future employment in a manner that meets the Saudi traditions and cultures.

Similarly, the lecturers believed that the trend is moving towards blended learning. For example, Latifah emphasized the rationale for blended learning in Saudi Arabia and its influence on the future of blended learning. She said in an interview:

*I think e-learning [blended learning] will be applied for other courses, as I understand from the college administration. The main goal was to offer space for new students. However, e-learning [blended learning] has helped the lecturers to develop their teaching strategies that were previously based on lecturing to include online participation, and encourage research.*

This quote shows that the need to offer more space for undergraduate students could result in an expansion of blended learning to address the growth in Higher Education. The other influence on the future of blended learning is the development in teaching strategies which enhance the learning process. The lecturers' views are also affected by the rapid movement to adopt e-learning in Saudi Higher Education, whether as a supplement to traditional learning or as a *transforming* blend which is the case of this study. Since the study there have been a number of projects to assist the expansion and structures that foster e-learning. For example, several training programs and workshops have been offered by the National E-learning Centre to university lecturers. The workshops have included Introduction to E-learning, Developing Online Quizzes and Courseware Design. Moreover, in 2009 the First International Conference on E-learning and Distance Learning was organized by the National Centre for E-Learning and held in Riyadh under the vision 'Learning Industry for the Future'. The Conference was one of the indicators for the general trend towards e-learning in Saudi Higher Education. In

addition, an Award for E-learning Excellence was launched by the Minister of Higher Education and the National Centre for E-learning and Distance Learning at the International Conference for E-learning under the title: “In order to deepen the concepts of creativity and innovation” to encourage the educational institutions in the universities to develop e-learning and to value the distinguished people in this area. Furthermore, Saudi universities have given serious consideration to the development of lecturers’ skills. For example, King Saud University has recently established a Deanship of Skills Development. One of the goals of this deanship is to implement the necessary development programs to improve the lecturers’ skills in the latest technology and instructional techniques. Certainly, improving lecturers’ skills will help facilitate the future implementation of blended learning.

The participating lecturers had a positive perception of the flexibility and the potential for creativity within a blended learning environment. This opinion reflects Albalawi’s conclusion (2007) that the surveyed Saudi lecturers had held positive attitudes toward web-based instruction and believed that online courses are the future of Higher Education in Saudi Arabia. However, the lecturers of this present study highlighted some challenges that could delay the expansion of blended learning. For example, they commented on the infrastructure and the need for sufficient Internet labs in all campuses to offer students a better experience. Furthermore, a program level implementation in which a degree can be obtained through an entirely blended learning program was also suggested by Deemah:

*Probably when the [blended] program is implemented all over the university [this] will be better... Of course, the lecturers of each subject should decide on the percentage of online (off-campus) instruction.*



This quote shows that the lecturer expects more blended learning implementation in the future, which confirms Bonk *et al.*'s statement (2006) that blended learning is a permanent trend. They state that, "Blended learning is a permanent trend rather than a passing fad in both higher education and workplace learning settings. Given this significant adoption of blended learning in both higher education and corporate training settings, it is vital to create strategic plans and directions for it" (Bonk *et al.*, 2006, p. 553). In addition, the previous lecturer's quote indicates that future blended courses are likely to offer lecturers the flexibility in selecting a proper design for each subject. With this finding, awareness should be given to the decisions made in the design process, which are critical to the effect the course will have on the students with such a wide variety of delivery mediums. Careful blended courses design enhances the transmission to blended learning and reinforces the recommendations of Stacey and Gerbic (2008), Sharpe *et al.* (2006) and Littlejohn and Pegler (2007).

Another aspect that could affect the future of blended learning is a lecturer's qualification for using innovative strategies as well as technologies in teaching. In the future, new lecturers are expected to be more familiar with the use of technologies that are a major element of everyday life. As explained previously, all of the participating lecturers are Bachelor degree holders from Saudi universities. Recently, Saudi Higher Education has adopted a strategy of only employing university lecturers who have post-graduate degrees from abroad. The goal of this strategy is to learn new methodologies of teaching and apply them at home (Todd, 2010). Currently, there are more than eighty thousand students on Higher Education scholarships studying in the USA, UK, Japan, Malaysia, Australia and Canada.

Furthermore, lecturer Nouf indicated that blended learning would be more successful for graduate studies:

*Moreover, as a graduate student, I believe that blended learning would be effective for us. I think reducing the in-class time would offer us as graduate students and lecturers more time to perform our research. Blended learning requires autonomy and research skills, which are most graduate students have.*

This quote mentions two features of graduate students that demonstrate the suitability of blended learning for them. Good study skills including self-discipline and independence are required skills for blended courses learners and graduate students usually have these skills. In addition, the time flexibility of blended learning was considered as a very useful advantage for graduate studies as this involves extensive research. It is significant that the Ministry of Higher Education has not yet provided distance learning degrees in post-graduate studies. In addition, Saudis who aim to be employed in a government position avoid being enrolled in a distance learning degree from abroad, because degrees through distance programs are not accredited by the Ministry of Higher Education. Therefore, this suggestion of employing blended learning for graduate studies seems to be a solution for Saudi employees who are not able to study as a full time student. It is hoped that implementing blended learning programs for graduate studies in Saudi Arabia would enable employees to develop their education without losing their jobs.

#### **5.4 Summary**

In conclusion, the majority of the participants had positive experiences and were keen to be engaged in a blended learning environment in the future. The flexibility of blended learning in particular for Saudi females was appreciated. In addition, the implementation of blended learning has the potential to change society's negative view

towards online learning. Various advantages of blended learning were identified by both lecturers and students. However, the lack of knowledge about the concept of blended learning has probably influenced their experiences. They agreed on most of the challenges. A few cases of resistance were identified among lecturers and students. Most of the students were positive about blended courses while a few of them had negative attitudes due to the lack of Internet accessibility at home. They had similar views to the participants interviewed by Weaver *et al.* (2008) who were concerned that “their teachers were not engaged with them in what they believed ought to have been an interactive learning environment” (p. 35). Adding to the findings of Weaver *et al.* that lecturers “were more concerned with technical aspects and workload issues”, the lecturers of this present study were more concerned with the level of the readiness of students for blended learning. Study skills, self-discipline and ICT skills are among the most essential issues that the lecturers discussed. They gave less awareness to the teaching strategies and more consideration to the technical and administrative aspects similar to the findings of Weaver *et al.* (2008). The lecturers gave more consideration to challenges encountered in a blended learning environment. Other challenges identified in this study show that the lecturers, who are new to blended teaching, have identified a serious ethical challenge that is rarely considered in the blended learning literature which is the intellectual property rights of their teaching materials. It is predicted that this issue will be given more consideration as the production of learning materials will increase.

Furthermore, the lack of flexibility in the blended course model and a compulsory policy of teaching blended courses resulted in a few negative attitudes towards blended learning. This is a contrast to the 100% positive experience of the lecturers at the University of Wisconsin, Milwaukee (Aycock *et al.*, 2002). However, lecturers in this

present study and the survey of Aycock *et al.* had similar reasons for a high level of satisfaction, which included flexibility of the teaching environment and opportunities for teaching improvement.

## CHAPTER VI: Discussion

*“Starting to create an interpretation is like trying to start a jigsaw puzzle that has a million indeterminate pieces. To make this puzzle more confusing, there is no unique solution. That is, one piece may fit with many other pieces” (Feldman, 1995, p. 2)*

This chapter presents a discussion of blended learning in Saudi Higher Education based on the perceptions of the lecturers and students who have experienced a blended learning environment. Using social constructionism as a theoretical framework has enabled me to understand the participants’ perceptions and to link them to a wider insight of blended learning in Saudi Higher Education. Consequently, I developed five main comprehensive themes based on the data collected from the participants, including their understanding of blended learning, the advantages, the challenges and the view of the future of blended learning. I used these five themes in the discussion to allow for a deep interpretation of the issues that affected the lecturers’ and the students’ views. The main themes ‘Blended Learning Concept’, ‘Implementation and Support’, and ‘E-Pedagogy’ emerged from the advantages and challenges perceived by the participants. The other themes, ‘Ethical Considerations’ and ‘Evaluation and Development’ emerged from participants’ perceptions of the challenges. The following sections discuss these themes.

### **6.1 Blended Learning Concept**

Blended learning is new to the university environment in Saudi Arabia. The transition to blended learning requires a clear understanding of this concept including a selected definition, design and rationale for this new environment. The three

common types of blending are discussed in details in Chapter three, section 3.1. All of the concepts' elements have to be introduced to lecturers and students who are central to this learning environment. The misunderstanding of the term *blended learning* in this study raised the importance of a clear understanding of the definition. Some of the challenges encountered by the participants were strongly related to the model utilization. Furthermore, introducing the rationale for blended learning is likely to reduce teaching resistance expected with any new change. Certainly, the acceptance of a new learning environment is strongly related to clarity and ambiguity of its concept. As discussed in Chapter three, *e-learning* is a term widely used to refer to online learning, while *blended learning* combines e-learning with traditional learning. The participating students and lecturers had not experienced any web-based instruction since e-learning is a new trend in Saudi Higher Education, similar to blended learning. The following sections discuss how the concept of blended learning including the definition, the design and the rationale influenced lecturers and students' perceptions.

### **6.1.1 Blended Learning Definition**

The use of the term *e-learning* as a substitute for *blended learning* influenced the acceptance of this new learning strategy. Recognizing the distinction between blended learning and e-learning would assist lecturers and students to recognize their roles within this learning environment. There is a significant difference between blended learning and e-learning. The latter is commonly understood as entirely online learning with no face-to-face learning. The common definition of blended learning emphasizes the role of face-to-face instruction. Thus, an understanding of the nature of this new learning environment is influenced by the utilized term and consequently has an impact on the students' attitudes towards the change in the learning approach. This study emphasizes the significance of using and understanding the term *blended learning* by

the students. The experience of the students confirmed that the use of the term *blended learning* would enable them to better understand the nature of this learning environment. This conclusion disagrees with the view of Oliver and Trigwell (2005) that the term *blended* should be abandoned because of lack of clarity. Rather, the use of the term *blended learning* has to be supported with a clear definition. A good example of clarifying the definition of blended learning is the University of Florida's approach of designating their courses with letters according to the type of blending (Dziuban *et al.*, 2006).

No Arabic translation of the term *blended learning* had been used in any educational program in Saudi institutions until 2009 when King Khalid University called some of their offered courses, blended courses. As a new university in the Southern Province of Saudi Arabia, King Khalid University has shown a rapid development in adopting blended learning. This has been influenced by their relationship with international universities who have an experience of blended learning. In addition, there is little Arabic literature that uses this term, due to its new emergence. Using an Arabic term for blended learning would provide a better understanding of this new learning approach. As discussed in the literature Chapter, there is not just one definition for *blended learning* in the English literature. Sharpe *et al.* (2006) noted that Higher Education staff members are using the English term *blended learning*, with its unclear definition, which allows them to negotiate their own meaning in order to protect face-to-face teaching, design active learning and have a successful blended learning. Sharpe *et al.* view the multiplicity of blended learning as an advantage for a more flexible learning environment. However, a lack of clear agreement of a selected definition for each program or course would result in confusion in understanding the required roles of students as well as lecturers. The different approaches of blended learning in particular

and education in general place more demands on institutions to define the term *blended learning* with its various classifications. This would help to diminish lecturers' and students' confusion. As a conclusion, it is essential that Arabic institutions aiming to adopt blended learning use the correct term and educate their staff and students in the differences between blended learning and e-learning. This will enable the staff to recognize the implications of utilizing a specific definition for blended learning.

### **6.1.2 Blended Learning Design**

As discussed previously, the blended course design was chosen by the administration and the lecturers were not involved in the selection of the design. Taking into consideration the shortage of blended learning designs that can be followed by lecturers (Garrison & Kanuka, 2004), the selection of a design model by the administration at this stage is acceptable. I agree with the administration's decision and believe that selecting the design by the administration only, at this initial stage, decreased the risk of inadequate course design that could be created by an inexperienced lecturer. The participating lecturers have no experience in teaching blended courses or giving online instruction. In addition, choosing the best combination of online activities is a daunting task that many lecturers are not eager to approach. Thus, this study shows that offering a general design model by the administration has facilitated this process. However, offering flexibility in the future for the lecturers to select online elements could enable more creative teaching. The flexibility of blended learning design is acknowledged in several studies and verified as an enhancement in learning. Therefore, the lecturers will need to develop their courses as soon as they have the necessary skills. This finding reflects the results of Garnham and Kaleta's survey (2002) that the flexibility of the blended design enabled the lecturers to accomplish course learning objectives more successfully within a blended course than within a traditional course.



Moreover, using one typical design for all courses influenced the participants' perceptions. The results of this study indicate that the participating students and lecturers have some concerns about subjects chosen for blended courses. For example, the English language lecturers found that the design model chosen by the college was not the best combination for their subject. They refer to the need for a high percentage of face-to-face interaction in introductory English. They thought that blended learning reduced the essential time required for interaction during face-to-face instruction of certain subjects. This finding supports Greener's result (2008) where he investigated Masters students' conceptions of blended learning at a British university and indicated that blended learning is only good for certain subjects. It is possible that the type of the blended learning model provided for the students affected their opinion. Face-to-face time could be dedicated to practical activities while online instructions can provide theoretical materials, as in the case in Bournemouth University which adopted blended learning for health courses.

It is recommended that blended learning designs vary according to the nature of the subject. The design model of blended learning must vary according to the percentage of web-based instruction, elements of the blended learning, and the objectives of the course. However, blended courses should not have less than 25-50% and not exceed 70% of the course credit as web-based instruction, in order to retain both advantages of online instruction as well as the advantages of face-to-face instruction. Vaughan (2007) reports that all studies contend that there is no typical formula for the reduction of class time or the use of tools within blended courses. Without doubt, online teaching skills and teaching experience affect lecturers' opinions on the criteria for blended course

design. The design flexibility of blended learning has to be guided by experienced staff to be successful.

### **6.1.3 Blended Learning Rationale**

Globally, universities adopt blended learning to address various challenges such as the shortage of space for increasing student numbers (Owston *et al.*, 2006). For example, blended learning was employed by the University of Central Florida to address this problem. However, the challenge in Saudi Arabia is the lack of qualified lecturers for universities endeavouring to provide Higher Education for a larger number of undergraduate students. King Saud University, as the context of this study, made the decision to use blended learning as a solution to this challenge. In addition, blended learning has the potential to offer Higher Education for people in rural areas (Yudko *et al.*, 2008), as well as offering employed people a chance to develop their education.

Although these benefits are important, the advantages of blended learning in enhancing the learning process should not be ignored. Garrison and Vaughan (2007) state that “the mistake of most traditional campus-based institutions was to see the potential of online learning in terms of access and serving more students instead of serving current students better” (p. 7). The participants in this study would perform better as long as they can recognize the advantages of blended learning. From their experience, the participants recognized various advantages such as educational development, flexibility, and interaction, reflecting the findings of other researchers (Owston *et al.*, 2006; Kaleta *et al.*, 2005; Yudko *et al.*, 2008; Vaughan, 2007). The positive perception of the students towards the availability of course materials online concurs with Graham *et al.* (2005) and Garnham and Kaleta (2002). The potential of reviewing online contents and

receiving replies from the lecturer through the online system helped the students to experience a better learning.

Significantly, the participants were able to identify further advantages that are unique to Saudi culture. For example, they highlighted the advantages of blended learning for female students and particularly, married female students. Culturally, Saudi family members have strong family relationships. In particular, this puts more obligations on married females in respect to family members, extended family members and domestic duties. Thus, few Saudi females have high professional qualifications. The government has recognized the importance of Higher Education for females and has started various projects to encourage them to develop their education. One example is the funding that has been provided for the establishment and construction of the huge female university, Princess Noura University. The College of the Applied Studies adopted blended learning to increase the capacity of female undergraduate students as their number has been increasing rapidly. This study asserts that the flexibility of blended learning offers Saudi females a convenient way to maintain their family responsibilities while participating in the opportunity offered by the government for further Higher Education. The flexibility of blended learning for students with family commitments, particularly students who have children, were acknowledged by other contexts such as New Zealand, as stated by Wright, Dewstow, Topping and Tappenden (2006).

Furthermore, utilizing blended learning in other educational areas was suggested by a participating lecturer. Blended programs would assist in solving the problem of training large numbers of lecturers as well as employees. In addition, blended learning could be used in training Saudi females at their convenience in order to improve their employment. For example, a recent decision by the Saudi government to offer jobs over

a three year period to 12,600 females who graduated 15 years ago, could use this strategy for retraining. This would be culturally very acceptable as the women would be able to use the flexibility of blended learning with their family and social commitments and then move to employment.

Moreover, considering gender-segregation environments that are part of the Saudi culture, it can be seen that blended learning has the potential to enhance the quality of learning. Traditional instruction via live circuit TV for female students taught by male lecturers would be better supported by online tools, including discussions and course announcements. Thus, the advantage of facilitating interaction between lecturers and students would be more effective in blended courses taught by male lecturers in this segregated environment. This finding is similar to Albalawi's findings (2007) that Saudi lecturers believe that web-based instruction will enhance teaching in the gender segregated in Saudi Higher Education system.

## **6.2 Implementation and Support**

Lecturers and students of this study emphasized the importance of infrastructure and support for a positive blended learning experience and Internet access and LMS tools were identified as key factors. In addition, support for using teaching and learning tools and employing effective teaching and learning strategies in blended courses is recognized as a crucial element. The perceptions of the participants towards the establishment of blended learning are discussed in the following three sub themes: infrastructure, orientations and support and training.

### **6.2.1 Infrastructure**

The shortage of computer/Internet labs at one of the University campuses was among the challenges faced by a few students who do not have Internet access at home due to their home rules. In order to maintain equal opportunity for all students, a policy that assists in addressing this challenge has to be developed by the administration. This could, for example, mean offering students who cannot meet the requirements of being a blended learner the opportunity to enrol in a traditional course. Another solution is to offer a computer/Internet lab with a full day access and give priority to students who do not have Internet access at home.

Although the negative perceptions of conservative families towards the availability of the Internet at home are expected to change in the main cities, such as Riyadh, this could be considered a crucial issue when blended learning is implemented in rural areas. People who live out of the cities are more conservative and the effect of their norms and rules should be considered when implementing blended learning in their areas.

In addition, the use of the LMS Jusur is an important factor which affected the participants' perceptions. Both lecturers and students appreciated that Jusur's tools have facilitated communication and interaction at anytime and from any location. This result is consistent with the findings of the Chinese students' survey conducted by Huang and Zhou (2006) in which they claimed that the tool of the virtual learning environment played an important role in their learning process as a means to communicate and cooperate. The continuous development of Jusur, which offers Arabic interface in addition to the English interface, has promoted a positive experience for students and lecturers with the participants acknowledging the user-friendly tools. LMS developers provide similar fundamental features and functions and endeavour to offer LMS that

contains all key features (Monsakul, 2007). Thus, Jusur is expected to provide further services for lecturers to facilitate effective online teaching.

Although development of these tools is required, the more important issue is how to utilize the tools effectively. Monsakul (2007) reports that “Though LMS has been proven as beneficial to student learning, it has been debated as to how LMS can be used further as a means to better engage the learners” (p. 8.7). The findings indicate that the lecturers are looking for new features that facilitate online discussion evaluation and reduce the required time for moderating and evaluation. Currently, Saudi universities offer different types of LMS, including Jusur and Blackboard, which vary in the features offered. In early 2010, King Saud University launched the LMS Blackboard and offered training workshops for lecturers to be able to use it as a tool for learning enhancement. The lecturers are still able to have their courses on Jusur although the official LMS of the University has become Blackboard. As explained before, Blackboard is a commercial LMS when compared to Jusur, which was developed for a government centre, the National Centre for E-learning, to provide the virtual management systems for government universities. It is hoped that the use of Blackboard will enable lecturers to have a better experience with features that have not been developed yet by Jusur. However, it is expected that the development of Jusur will offer Saudi universities a sustainable and a cost effective LMS with more customised features.

### **6.2.2 Orientation**

This study found a low level of knowledge about blended learning in Saudi Higher Education. One major challenge to be considered in Saudi universities is the adaptation of blended learning in this traditional didactic environment. This requires an adequate

orientation. The first class meeting of all blended courses was dedicated to the orientation of the LMS tools provided by the IT staff. A brief manual showing how to use the LMS Juser was distributed to the students who were new to blended learning. The IT staff members of the College were available at lab time for technical assistance. However, the results indicated that some students did not benefit from the support services provided by the college. Lack of guidance for students on where to go when they need help was an observed reason. Providing well-documented guidelines as well as verbal instructions would facilitate students learning and prevent poor performance that is associated with technical problems. This reflects the findings of Moore and Aspden (2004) in their investigation of students' experience of e-learning, where the students were able to use the new system more easily because of the thorough orientation and user-friendly virtual learning environment.

With regard to the lecturers, a thorough orientation of the concept of blended learning, including learning technological tools and learning theories, has to be given to them. Two resistant lecturers who did not follow the blended model also refused to participate in the interviews. Their resistance could be a result of inadequate skills, not believing in the effectiveness of blended learning, or avoiding the extra workload of transferring to blended courses. When people do not understand their role they feel that they are losing control and resist change. This resistance may be reduced by introducing the advantages of teaching blended courses for faculties during a thorough orientation.

Another challenge that could be addressed by further guidance was the lecturers' concern for large-enrolment classes. The participating lecturers were concerned about the number of students per blended courses and how they could facilitate and assess student engagement and interaction. As a result, they asked for a decrease in the size of

courses. This contradicted findings at Canadian universities which showed the reason for implementing blended learning was to provide a better learning environment for large-enrolment courses (Owston *et al.*, 2006). The difference here is that Canadian lecturers were aware of the goal of blended course implementation for large-enrolment classes so their concern was about the choice of the design of the course that could facilitate the lecturer's role, such as incorporating online discussions or not. On the other hand, the participating lecturers viewed this challenge from one angle because they had a non-flexible course design with online discussions being a mandatory activity of 20% of the course grades. This highlights a major factor of education that is related to flexibility in teaching strategies and the design of blended courses. Whether universities adopt blended learning for capacity reasons or financial viability, academics have a different view especially when it comes to large numbers of students. In the end, it is the lecturers who will face the academic work, not the institutions, so they should have the right to redesign their courses or at least be involved in the redesign process.

### **6.2.3 Support and Training**

Blended learning requires continuous support and training for students and lecturers. This study found that providing blended learning in an educational environment with no online learning experience requires well-prepared support and training programs for students and lecturers. As this study was conducted with undergraduate students, they were perceived by their lecturers as students with less self-discipline and independence in learning. These results assert that students need further training for their study skills to enrol in blended courses. The lecturers also identified their lack of IT and teaching skills needed to adapt to this new teaching environment. The following sections discuss the required skills for both students and lecturers of blended courses based on the findings of this study.



### 6.2.3.1 Student Skills

The participating lecturers emphasized that the challenge of students' poor technical skills has to be addressed to avoid a negative effect on their performance. A few of the students did not have skills that allowed them to write their assignments on a Word Processor or use the Internet to upload or download a file. This forced them to seek help from their friends to submit their assignments and do other required online activities. Although these cases are very scarce, in order to afford equality to students, more consideration has to be given to such cases. Preparing the students to have the required IT skills for a learner in blended courses is expected to require a continuous student service. Currently, there are some undergraduate students who may not study any computer subject during high school, which was the case of a few participating students in this study. The IT skills of undergraduate students are expected to be better in the future as they become digital natives. Using computers in education will also be experienced by students before they attend university as the Ministry of Education is committed to offering computer courses and providing infrastructure throughout pre-university education. In addition, innovations in educational tools are expected to be further developed. Thus, offering students preparation programs for blended learning needs to be continuously developed to provide the required IT skills and knowledge that meets the expected future development of blended course design.

On the other hand, most of the students' experiences reflected the findings of Owston *et al.* (2006) that blended courses helped them to apply their understanding of technology. This is also consistent with Oliver and Herrington (2003) who assert the significant impact of students' technical skills on their learning experiences and satisfaction. Oliver and Herrington contend that an independent online learner requires a relatively high

level of technical skills to diminish any anticipated technical problems in the learning experience. Significantly, the level of IT skills influences the students' satisfaction. In addition, most of the participating students did not show any concern regarding their time contribution in online learning, as opposed to the findings of Sweeney *et al.* (2004) and Aycock *et al.* (2002). It is probable that the poor student interaction in the online discussions affected the time contribution.

Moreover, the findings indicate that the students were influenced by their previous experience of learning that was based on a teacher-centred strategy. Participating lecturers contended that blended learning, unlike traditional learning, requires a high level of student discipline and responsiveness. The lecturers mentioned that some students were not independent learners. This is similar to the conclusion of Al-Jarf (2005) that some freshman students did not take online instruction seriously as it was not used by other lecturers and students at the college. She asserts that taking online instructions seriously also requires an adequate level of students' self-discipline. These characteristics are not usually found in freshman students but they are requirements to succeed in blended courses. Thus, it is necessary to provide these students with a preparation program that assists them to develop their study skills. It could be suggested that applying blended learning programs to senior undergraduate classes, as a first stage of the blended learning implementation, would help to ensure appropriate levels of student discipline and responsiveness. Moreover, the advantages of blended learning could be recommended and offered to post graduate students, as was suggested by the participating lecturers. These findings reflect the conclusions of Greener (2008) and Graham *et al.* (2003) that there is apparent awareness of the need for autonomous learning, which is the blended approach, where strong commitment is required in successful learning. Supporting this result, Huang and Zhou (2006) suggest that

promoting students' self-regulated learning capability has to be considered by lecturers and instructional designers.

Another aspect that affected the students' perceptions and experiences was the research environment for undergraduate female students. For example, university libraries are not part of the female students' study life. This could be because Saudi students are used to a teacher-centred approach and therefore lack autonomous learning skills. Most undergraduate students come to the campus only to attend classes and rarely use the library, which is a crucial sign of the lack of research practice within undergraduate studies. This emphasizes the need for a better research environment, including encouragement for research projects and a research skills development program. In addition, digital library resources are highly desirable to address the aspect of gender-segregation that restricts female access to the main University library.

In conclusion, the majority of the students who had appropriate IT skills stated that they had performed well in their blended courses. This study emphasizes other factors that affect students' perceptions and performance, including time management skills and an appropriate level of self-discipline. Developing and maintaining appropriate research skills will also influence the students' readiness to succeed in blended learning.

#### **6.2.3.2 Lecturers' Skills**

The majority of participating lecturers had adequate IT skills and were keen to develop them, whereas those lecturers who were computer illiterate resisted teaching blended courses. It was also reported that lecturers with low IT skills used to seek support from Technical Support as well as their colleagues. It was really a challenge for them to develop their IT skills while teaching such courses. Of course, teaching blended courses

should not be implemented without first identifying the lecturers' technical and teaching abilities that enable them to succeed in this new environment. There is no doubt that lack of IT skills caused teaching resistance in this study. This conclusion adds to the findings of Albalawi and Badawi (2008) that not all perceptions of novice lecturers towards e-learning were positive, but they varied according to their IT skills.

The lecturers who participated in teaching blended courses typically incurred an increase in the time they spent learning new techniques and skills, and moderating students in blended learning environments. Essentially, the lecturers of blended courses had to develop digital contents, which required more time than developing traditional courses. However, the user-friendly LMS tools and the ability to manage time for online teaching helped some of the lecturers to have a positive experience.

Moreover, the use of passive digital materials represented by PowerPoint slides is likely to influence the view of the students as well as the lecturers towards the suitability of blended learning for specific subjects. There was no utilization of interactive online material in the blended courses. Thus, the lecturers need to be offered training on the effectiveness of presentation tools such as PowerPoint and more advanced courseware tools such as CourseLab to facilitate effective teaching and learning. In addition, training programs should be continuously developed to meet the rapid increase in the innovation of educational tools. Dziuban *et al.* (2006) stress the significance of lecturers support for course redesign and learning new teaching and technology skills. The lecturer has to be assisted in deciding what course objectives can best be achieved through online learning activities, what can best be accomplished in the classroom and how to integrate these two learning environments.

Moreover, the lack of pedagogical skills required for teaching blended courses had a significant influence on lecturers' satisfaction and on the blended learning experience for students. The study shows that some of the lecturers realized the need for using techniques that encourage students' interaction and engagement as the lecturers have not been exposed to best practices or general guidelines for facilitating interaction. Collaborative learning was mentioned by one of the lecturers as a planned strategy for the next semester. Graham *et al.* (2003) recommend that lecturers have to adjust their schedules to accommodate more frequent interaction with students. However, this was not the case of this present study as there was no adjustment in lecturers' schedules. Most of the participating lecturers were more concerned with the required time to manage large classes and assess the students' participation in blended courses. This conclusion agrees with other studies findings that time contribution is considered a challenge by lecturers of blended courses (Dziuban & Moskal, 2001). Consequently, the universities should provide time management resources and workshops for lecturers to address this challenge.

Furthermore, providing professional development programs for lecturers would help in understanding sufficient teaching strategies such as integration, moderating online discussion, and introducing new online activities that facilitate interaction and engagement. King Saud University has realized the need to develop their lecturers' skills in teaching and has offered them the opportunity to enrol in the Postgraduate Certificate in Academic Practice at King's College London. The goal of this program as explained by King' College London website is to help lecturers in "identifying their own learning and development needs and planning their professional and personal development". It is also stated that lecturers are to be assisted to understand and appreciate the ethical issues and boundaries within learning and teaching. The lecturers

who are enrolled in this program are trained via a blended format. The program requires online activities, one week face-to-face class time in Riyadh and one week to be held in London. Certainly, utilizing a blended format in training enables lecturers to develop their skills with a lesser work load that could affect their teaching and research tasks. Currently, this program is offered yearly to only twenty lecturers who gained their PhD within the last five years. Although the programme does not aim to help the participants to design blended learning activities, a lecturer's experience of the environment of blended learning in this program as a student would enable them to understand their students' view of blended courses. It is hoped that using a blended strategy in training lecturers will be evaluated and consequently developed and expanded. The benefits of blended learning, such as increased learner satisfaction, reduced training time and the ability to easily update training materials are powerful reasons for employing blended learning for lecturers training programs. Significantly, offering the lecturers the experience of being a learner in a blended environment in their own training will enable them to facilitate a better blended learning experience for their students. The lecturers' experience of e-pedagogy, as a significant issue for the success of the digital element of blended learning, is discussed as a part of the blended pedagogy in section 6.3.

### **6.3 Blended Pedagogy**

Blended learning in Saudi Higher Education has been introduced as a technological learning approach with little awareness of pedagogical theories that are most significant for its effective learning deployment. As stated in Chapter two, several Saudi institutions, including the National Centre for E-learning, have started to provide various development workshops in e-learning for lecturers. However, only a few of them are about pedagogical theories while the majority focus on introducing general e-learning tools. This finding reflects Cook (2002) that "the theoretic basis from a

pedagogical perspective is very rudimentary, with much of the development being on the technical level” (p. 23). This challenge requires very serious consideration with a better understanding of how to employ the appropriate theory or practical model, such as Salmon’s 5-stage model, within a blended pedagogy. Kaur and Ahmed (2006) contend that skills of good instructional design are required for developing interactive and effective courseware.

However, the participating lecturers and students view blended learning as an approach that enhances pedagogy with a focus on the positive effects of online teaching and learning. The participating students’ perspectives also highlight the deficiencies of face-to-face pedagogy in Higher Education. A thorough analysis of the participating views results in two key factors that are associated with blended learning pedagogy: developing the course, including the pedagogy challenges of face-to-face class time, and understanding the new role of the lecturer and the students. These two factors are discussed in the following sections.

### **6.3.1 Course Development**

Without doubt, the course redesign process has to be underpinned by pedagogical theories with the aim of meeting the objectives of the course curriculum. Determining the appropriate activities for course contents is a major step in the course design process. As the lecturers of this study were required to follow a particular design model determined by the College administration, their task in the redesign process was only to decide on the course contents that fitted the elements of the determined design. Dziuban *et al.* (2006) recommend lecturers support for course redesign in order to recognize appropriate course objectives which can be best achieved through online activities. Support from an instructional designer is highly recommended for a course redesign

process. As an instructional designer was not available in this study, the lecturers who taught the same course collaborated to select the contents to be digitalized. As explained in the Chapter five, lecturing strategy, which is a teacher-centred approach commonly used in Saudi Universities, influenced the students' perceptions negatively towards the face-to-face class time. This result also supports the literature findings that active learning strategies have to be utilized along with the lecturing method to enhance student motivation and engagement (Gauci *et al.*, 2009; Felder & Brent, 2009). Thus, the participating students understood that online learning offered them the chance to cut the routine of the traditional learning environment. Lecturers have to be aware that students who are surrounded by the digital world are no longer motivated or satisfied by traditional teaching methods. The Net Generation believes that knowledge is available everywhere and attendance is not necessary. This is a serious challenge for today's lecturer that has to be addressed as students have started to use social networks as a substitute for physical social life. Certainly, lecturers need to understand their students' perceptions towards face-to-face class time in order to appreciate how important is the shift to student-centred strategy. This study reflects Payne *et al.*'s (2007) opinion that promoting student-centred learning, encouraging independent learning and maintaining constructive and appropriate feedback is a challenge.

In this study, using face-to-face time for lecturing without sufficient discussion was one of the reasons that decreased students' engagement in-class time. Dedicating face-to-face class time in blended courses to discussions has been noticed as a key factor for best practices of blended courses design (Starenko, 2008). It is hoped that a future development of the blended courses design would consider this approach, as well as active learning strategies, to increase students' motivation and engagement during face-to-face class time.



Moreover, the lack of syllabi and rubrics are identified as essential factors that negatively affected the participating students' experience. Syllabi were not considered by most of the lecturers while rubric is not common in the Saudi traditional learning environment. Using a statement of goals and objectives for each course to guide students in online discussion would assist them to understand what is expected from them. Online discussion as an assessment tool was not preferred by most of the students. This could be a result of not having guidelines for assessment.

Moreover, the lack of guidelines for lecturers to structure online discussions was a major challenge as lecturers were developing online discussions with poor knowledge of how it could be effective. This was recognized by some of the lecturers who planned to restructure their course online discussion in the next semester. The use of online discussion as an assessment tool has been under research to provide lecturers with recommendations and guidelines that assist them to manage this challenging tool. For example, Elbatea (2008) proposed standards for effective utilization of online discussion and recommended further evaluation and development.

### **6.3.2 Lecturers and Students' Roles**

One of the critical challenges that have been encountered in this study was to understand the new role of the lecturer in blended courses. Lecturers of blended courses have to facilitate the shift from a lecturer-centred to student-centred environment and encourage interaction and collaboration between peers in order to facilitate engagement. Because high engagement and motivation is a sign of a successful learning process (Oliver & Herrington, 2003), the lecturers need to recognize what it means to be a facilitator to foster student engagement.

E-pedagogy involves changing the lecturers' role from using traditional teaching strategies to student-centred strategies. This was one of the challenges faced by the participating lecturers, which confirms Garrison and Vaughan's findings (2008) that the practice of blended learning is not simple as the concept may imply. Pedagogically, I agree with Chew *et al.* (2008) that considering the Community of Inquiry theory would help the lecturers to give more focus to *learning* instead of *technology* in teaching blended courses. The results of the study confirm the relationship between the three elements of Community of Inquiry, as the poor feedback and minimal *teaching presence* in the online environment affected the *social presence* and the *cognitive presence* negatively. The commonly used teaching strategies in Saudi universities give no consideration to the significance of dialogue in teaching, particularly when using ICT. The pedagogy of teaching dialogic and what it means for teaching thinking skills has become a vital aspect of recent pedagogy. Wegerif (2006) states that:

*This dialogic interpretative framework implies the need for a pedagogy of teaching dialogic, that is the ability to sustain more than one perspective simultaneously, as an end in itself and as the primary thinking skill upon which all other thinking skills are derivative. This pedagogy can be described in terms of moving learners into the space of dialogue. Tools, including language and computer environments, can be used for opening up and maintaining dialogic spaces and for deepening and broadening dialogic spaces. (p. 155)*

The pedagogy of teaching dialogic certainly requires a new role for the lecturers. It was probably the lack of experience in online teaching that influenced the lecturer's ability to recognize their new role. The role of the lecturers in blended courses involves using strategies that encourage interaction in online learning, providing feedback to students, integrating face-to-face instruction with online instruction and evaluating the instructional strategies based on students' views.

The lecturers expressed their positive perception of using online discussion as a tool for facilitating communication and interaction. However, interaction that facilitates critical thinking and reflection was rarely experienced in this study. This is influenced by the traditional Saudi educational approach in which knowledge is presented in a one-way system from lecturer to students. Freire calls this ‘the banking model of education’. This reflects the Saudi research findings (Al-Saadat, 2006; Al-Saadat, 2003) that there is a lack of sufficient guidance and feedback to students in Saudi traditional teaching. Switching from a lecturer-centred strategy to a student-centred strategy requires lecturers to recognize their role in developing skills for critical thinking and fostering dialogue in education. Adding to Owston *et al.* (2006), it is the quality and value of interaction that influences the quality of the learning experience in Higher Education. Online discussion can effectively support learning when lecturers provide regular feedback and students share new ideas. However, lack of feedback influenced the students’ view of the online discussion experience. A better practice for teaching blended courses would enable a better learning experience and confirm Garrison and Kanuka’s view (2004) of the advantage of blended learning in fostering critical thinking and facilitating collaborative learning.

In the blended learning environment, students are expected to have a new role as independent learners which can lead to more engagement and participation. The challenge that the participating lecturers encountered was to help their students to understand and practice their new role in the blended learning environment and to address any resistance. In particular, the e-pedagogy adopted by the lecturers had a strong impact on how students played their role in the online learning environment. For example, when the lecturers posted particular topics for the mandatory online discussion they were criticized by the students as the topics were limited in scope and did not

encourage students to express different opinions. The students' replies and interaction were of the same kind, which generated little feedback from the lecturers. This has led to de-motivation in students as a result of significantly reduced interaction. While the lecturers were responsible for designing the online learning activities, such as selecting the topics of the online discussions, the students were expected to play an active role in this dialogic activity. From a pedagogical view, Conole (2008) argues that designing learning activities is significant to make more effective use of technologies in developing learning activities. In any learning activity, students have some tasks to do which are classified by Conole (2008) into six categories:

*assimilative (attending and understanding content), information handling (e.g., gathering and classifying resources or manipulating data), adaptive (use of modeling or simulation software), communicative (dialogic activities, e.g., pair dialogues or group-based discussions), productive (construction of an artefact such as a written essay, new chemical compound, or a sculpture) and experiential (practising skills in a particular context or undertaking an investigation). (p. 201)*

The challenge that faced the students was that they had no experience in understanding their role in the blended courses and performing their tasks within the online environment. Thus, students need scaffolding and guiding in this new learning environment. It was clear that the lack of instructional scaffolding in the online discussions was one of the reasons for poor online collaboration between students. Zhu (2006) reports that dialogue has to be supported by mentors who challenge and scaffold the student's learning. Thus, it is highly recommended that lecturers utilize online activities that increase interaction, reflection and collaboration through pedagogical guidelines such as Salmon's (2004) 5-stage framework, which is used to design and run online activities that motivate and engage online students based on interaction. Several studies (Chao, 2006; Nussbaum, Alvarez, McFarlane, Gomez, Claro & Radovic, 2009) assert that scaffolding is an effective teaching strategy that supports student

collaboration and can help improve teaching and learning in Higher Education. Salter *et al.* (2001) assert that online discussions increased reflection and collaboration, which was not achieved in this study.

Significantly, collaborative online activities were not utilized in the blended courses of this study. Because previous Saudi research on collaborative learning focuses on pre-university education with no consideration for the online environment, it could not be predicted whether utilizing collaborative learning in blended courses would increase Saudi student satisfaction. However, this was concluded in other contexts (Jung, Choi, Lim & Leem, 2002 cited in So & Brush, 2008). I believe that introducing best practices of collaborative activities for blended learning would assist lecturers to recognize strategies that facilitate collaboration. Facilitating collaboration in online discussion requires specific tasks assigned to group of students. As long as students realize their role in the online learning environment the online discussions can be more effective.

Moreover, a participatory approach could be employed to improve motivation and collaborative learning. The use of participatory approaches allows students to decide about their own learning (Auerbach, 2001) and share knowledge and experiences. Certainly, this approach emphasizes the lecturer's role as a facilitator. Allen, Kilvington and Horn (2002) assert that the success of the participatory approach is influenced by the cultural context, "Participation does not take place in a vacuum, but its development and progress will be influenced by a variety of factors inherent in the context" (p. 46). Allen *et al.* indicate that the participatory approach assists learners to socially construct their knowledge which involves a change in their behaviours. Changing learners' behaviours was a challenge identified in this study which is likely to be a result of the experience of the teacher-centred strategy. For example, four of the lecturers utilized the

participatory approach in the online discussion. Students were able to choose to participate or not in a bonus discussion and could choose the topic for discussion. This caused a huge number of posts by students but the feedback from their lecturers and the student-student interaction was very poor. As a result of a lack of effective dialogue, the students indicated that there was a decrease in their motivation. This conclusion emphasizes the essence of the lecturer's role as a facilitator to enhance student's engagement and motivation.

Furthermore, implementing blended courses requires integrating e-pedagogy with existing styles of teaching. Utilizing professional techniques to integrate online instruction with in-class instruction will help students to engage in learning efficiently and effectively. Participating lecturers did not have experience in online teaching prior to the implementation of blended courses. Certainly, this affected the quality of online instruction in the blended courses. To offer successful blended learning, employing pedagogical theories should be considered as important as providing technical tools. Supporting this view, Alonso *et al.* (2005) note that pedagogical problems with blended learning require more effort to be resolved. In this study, the blended pedagogy lacked the integration of face-to-face instruction with online instruction, which affected student engagement in online learning. The gap that has to be filled is the link between online activities and class lectures, which is called 'closing the loop' by Aycock *et al.* (2009). For example, most of the lecturers did not discuss online activities in class and vice versa. Only one of the lecturers who practiced the integration confirmed how it enhanced students' motivation and engagement. In addition, most of the topics in online discussions were not related to the contents discussed in class which decreased students' engagement. Cox *et al.* (2003) and Hennessy *et al.* (2003) assert that lecturers need to employ proactive and responsive strategies in order to support and guide learning,

maintain a focus on the subject, monitor progress, and encourage reflection and analysis. Learning in two separate environments (online and in-class) without proper integration is probably a reason for poor student engagement.

Furthermore, interaction should not be dependent on the use of online discussions only. There are many social networks that would motivate the Internet generation learners, enhance interaction and diminish students' isolation in online environments. The Net Generation is adopting social interaction in an online environment, therefore education has to employ social networks. This leads us to the need to offer new technology tools that could enhance interaction in blended learning, such as wikis to reinforce social activity and motivate new students. One of the challenges that may be encountered in Saudi Arabia is whether such tools are supported by the Arabic language. Most new generation students use social software and networks such as Live Messenger and Facebook that support Arabic language on an almost daily basis. The effectiveness of utilizing blogs, wikis and Nings in Higher Education has started to be investigated in the literature. Stacey and Gerbic (2008) state that new blending potentials that contain the latest learning technologies, such as podcasting and social networking tools including blogs and wikis, are supported by the technology rich experiences of some Net Generation students. It is predicted that enhancing the learning process would involve such strategies that are used broadly by people for non-academic purposes. However, integrating e-learning 2.0 with traditional learning would involve learning new teaching skills. In conclusion, the findings of this study point to the impact of the inadequate quality of e-pedagogy on students' engagement and motivation and reflect the results of Sweeney *et al.* (2004), Danchak and Huguet (2004), Tabor (2007) and Oncu (2007).

## **6.4 Ethical Considerations**

Ethical issues have to be considered in education, particularly when new technologies are adopted. This study confirms Jefferies and Stahl's findings (2005) that there is a lack of attention to ethical issues in respect to blended e-learning. Universities need to develop policies that address the ethical issues when implementing blended learning with more focus on plagiarism and Intellectual Property Rights. This study shows a lack of awareness of Intellectual Property Rights and indicates that there is no consideration or consequences of e-plagiarism in undergraduate studies in Saudi universities. The following sections discuss three ethical issues that have been identified in this study: Netiquette, E-plagiarism, and Intellectual Property Rights.

### **6.4.1 Netiquette**

Netiquette (Internet etiquette) has been established by universities to guide their students to the rules of proper use of the Internet in learning (Littlejohn, 2005). Both lecturers and students have experienced unacceptable behaviour on the Internet that has raised the need for precise guidelines which could help students and lecturers to use online activities properly. Various student behaviours in the online environment have to be considered. For example, netiquette directs students to use the lab PCs properly and avoid websites that are irrelevant to their studies to protect the systems from the spread of Internet viruses, as reported by the IT staff in the administration meeting. Authenticity of the information has to be addressed and students need guidelines on the search strategies that help them to avoid unauthentic information. In addition, the rules advise students to use proper spelling and writing and post constructive and relevant messages in online discussions.



The predicted future of mobile learning also demands particular netiquette. For example, the previous ‘no laptop use in class’ law is expected to be changed and students are likely to use laptops and smart phones to take lecture notes. Therefore, guidelines on when and how these devices are used during a lecture are necessary to ensure appropriate behaviour.

Each blended course lecturer is recommended to develop her/his own course netiquette to provide students with the proper use of the Internet within that particular course. For example, lecturers might direct their students to the required format of subject titles for online discussion messages or they might specify word count guidelines for online discussions. In addition, netiquette has to be developed for a general use of the Internet by the institution. Providing netiquette for learners is important to prevent misunderstandings in written communication and to maintain a respectful online voice. Furthermore, a local netiquette needs to be developed to reflect Saudi Arabia Islamic values and norms. This conclusion emphasizes the necessity of developing rules of conduct that reflect Saudi culture, especially with respect to Saudi women. For example, the rules have to include statements about the use of photos because it is inappropriate in Saudi culture to use female photos in an online environment.

#### **6.4.2 Intellectual Property Rights**

Significantly, there is a lack of awareness of the copyright and moral issues in online learning in Saudi Arabia. This issue is not isolated to Saudi. Casey (2006) reports that “many consider that there has been a lack of awareness about Intellectual Property Right issues in e-learning in UK educational institutions, especially regarding the use of third party materials” (p. 3). He adds that the Joint Information Systems Committee (JISC) has been providing guidelines to clarify the basics of copyright and moral rights

and the role of licensing arrangements. JISC works with Higher Education by providing strategic guidance, advice and opportunities to use ICT to support learning, teaching, research and administration. In Saudi Arabia, the Centre of e-learning at King Fahad University has considered copyright in e-learning and has started the development of guidelines and quality standards for e-learning processes. In the meantime, it is strongly recommended that institutions that adopt blended or e-learning develop their own Intellectual Property Right policies, in particular the guidelines for copyright of online materials. These guidelines should be introduced and discussed in lecturers training program for blended teaching. Institutions should have their own policies and agreements with developers if they want to own the copyright. As Casey (2006) states, “There is also a need for training with regard to Intellectual Property Right issues in general and in e-learning in particular. In addition, educational institutions need to understand that the management of Intellectual Property Right has serious resource implications” (p. 3) Lecturers will face the same challenge of copyright until Intellectual Property Right policies are developed in Saudi universities. It is highly recommended that the Saudi National Centre for E-learning develop national guidelines that consider Intellectual Property Rights in e-learning.

#### **6.4.3 E-Plagiarism**

This study shows that e-plagiarism is a serious challenge in blended learning. As explained in Chapter five, the participating students and lecturers did not see any problem with copying exact text from the Internet without sourcing. This view is influenced by the lack of knowledge about plagiarism and its consequences. According to Sutherland-Smith (2008), “Some students understand that they should not take words or ideas without attribution to the source, but they do not understand why not - other than to avoid university penalties”(p. 155). It is obvious that the lack of university

policies towards plagiarism for undergraduate studies influenced the Saudi lecturers. Also, these lecturers have not been exposed to guidelines on plagiarism as they graduated from Saudi universities. The lack of awareness of plagiarism in universities clearly can be a sign of plagiarism in traditional learning. This conclusion confirms the studies of Hamdan (2006) and Ebaid (2005) about the presence of plagiarism in Arab universities. However, there is a dearth in the Arabic literature that investigates plagiarism in Higher Education particularly in undergraduate studies. Recently, awareness has been given to developing ethical policies associated with plagiarism. Meeting the standards of the National Commission for Academic Accreditation and Assessment was one of the reasons that encouraged Universities; for example King Saud University has started to develop such policies in 2009/2010.

In this study, one of the main reasons for plagiarism was that lecturers did not teach their students how to avoid plagiarism. In contrast, studies in other contexts show that the challenge that faces the teachers is how to identify and detect plagiarism with the enormous amount of information in the Internet. There has been a debate between researchers on whether the Internet is the cause of the increase in student plagiarism (Sutherland-Smith, 2008). Don McCabe (2003, cited in Sutherland-Smith) agrees with the opinion that the Internet has not led to a significant rise in plagiarism among students but it has given more space for those who plagiarise. To look at McCabe's view in another way, the Internet also provides online resources to students who practice plagiarism unintentionally. A study investigating the views of students on plagiarism by Sutherland-Smith (2008) indicates that students' inability to understand plagiarism is a result of inconsistency between their lecturers' views and university policies. In order to address the e-plagiarism issue, students should be educated and guided by their lecturers about the plagiarism policies of the university.

In addition, plagiarism is more serious when detected among researchers who are expected to be aware of this ethical issue. Al-Jarf (2008) found that plagiarism is practiced by some researchers and graduate students in Saudi Arabia. This is alarming and requires decision makers to take action to prevent this unethical behaviour. Al-Jarf also highlights the need for protecting Saudi lecturers publications in their universities by copyright law, which would assist in preventing plagiarism.

It is noteworthy that plagiarism is also influenced by the learning practice of cultures. Differences in culture were discussed by Sutherland-Smith (2008) as an issue that influences plagiarism practice. For example, copying exact text without referencing was found in Chinese and Italian culture as acceptable behaviour. Studies in these two cultures found that students were not aware of sourcing and thought excellent writing meant copying from original resources.

Moreover, as far as detecting plagiarism is concerned, there is a number of e-plagiarism detection software programs that support English language, such as Turnitin which diagnoses plagiarism in students' assignments through search engines. However, there is no anti-plagiarism software that supports the Arabic language (AlZahrani & Salim, 2009). Recently, a research paper was presented in the International Conference for E-learning in Riyadh by AlZahrani and Salim who aim to develop a plagiarism detection tool that supports the Arabic language. Hopefully, such tools will help in the prevention of e-plagiarism in Arabic studies.

In summary, the shortage of plagiarism policies in Arab institutions (Hamdan, 2006) emphasizes the need for developing e-plagiarism policies in Saudi Higher Education to support blended learning. Various forms of support for students to prevent e-plagiarism

could include offering writing skills tutorials in addition to introducing guidelines on how to avoid plagiarism. English is the language of instruction only in science disciplines at public universities. Thus, students with poor English writing skills who have to write in academic English may unwittingly plagiarise. This is a critical issue that has to be considered. Saudi students face a challenge when writing in a foreign language unless they are well-prepared for this prior to university enrolment. This kind of writing challenge is related to the issue of language of instruction policy (Tollefson, 2002; Troudi, 2009). Using English as a medium of instruction in most Higher Education fields not only presents a challenge for students in writing, but, as Troudi (2009) argues, it also has effects on Arabic as a language of science and academia. Recently, students in the preparatory year at King Saud University have been required to complete English language courses, including courses on academic writing skills. Certainly, the students' writing skills are influenced by their background and whether they take intensive English courses at secondary school which seems to be the trend in the country today.

Understanding the concept of plagiarism should start at the early learning stages in primary school. Students at primary school, while using the physical and the digital library for research, could be taught writing skills and how to prevent plagiarism. In the UK there has been a debate about how important it is to teach students about plagiarism before secondary school. The e-plagiarism issue clearly has to be discussed and addressed before e-learning and blended learning are adopted. Administration rules and policies that clarify the types of plagiarism and its consequences would help in decreasing this unethical behaviour.

## **6.5 Evaluation and Quality of Learning**

Evaluation that is based on students' and lecturers' experiences would allow better understanding for the future development of a better quality learning experience. Supporting this view, Sharpe *et al.* (2006) contend that blended learning models should be developed according to local, community or organizational requirements. Administration should survey students and lecturers in blended courses at the end of semesters to investigate their experiences.

### **6.5.1 Feedback**

A quality experience for students is a goal in most institutions and universities. Most universities investigate students' learning experiences (Wend, 2006; Oliver & Herrington, 2003) and their feedback is the principal data source for quality assurance processes associated with teaching. In Saudi Arabia, most universities have started to ask students to complete course evaluations as part of lecturers assessments. For example, in 2009 King Saud University started to use online evaluation forms as a condition for all students to attain their grades. Personal confidentiality is maintained. Although lecturers are allowed to access the evaluation reports, there is no indication that the lecturers use these evaluations to improve their courses. Thus, there have to be well organized strategies for course evaluation in order to attain their objectives.

Moreover, the lecturers' performance in the online environment was also evaluated by the administration. Feedback from the lecturers about their experiences and the challenges facing them and their students was also received during the semester. In addition, there was a positive response from the administration to the feedback on the resistance of the English course lecturers to blended learning. However, the

administration did not evaluate the pedagogy which has a serious influence on the learning process.

The lecturers' experiences confirm Lionarakis and Parademetriou's (2003) conclusion that the quality of the learning experience in open and distance education is underpinned by the administrative support, as well as the quality of the tutor. Regular evaluation using students' and lecturers' feedback assists in developing the program and enhancing the quality of the learning. Significantly, a conference about quality assurance in Saudi Higher Education was held in Riyadh in October 2009 and recommended evaluating student and lecturer satisfaction as the best strategy to explore learning effectiveness and ensure a better quality of education.

### **6.5.2 Development**

Blended learning incorporates independent online learning, which requires a high level of technical skills (Oliver & Herrington, 2003) and the ability to utilise new tools such as social networks that encourage interaction and collaboration and diminish isolation. Therefore, continuous development of the online tools and activities utilized in blended learning would meet the Net Generation's expectations. At the same time, lecturers need to handle potential challenges such as technology failures, to understand the role of online facilitation, and to consider the importance of student-lecturer interaction with each student. All of these requirements have to be evaluated to assist in developing the program and ensure quality of learning.

It was reported in Chapter five that there was a lack of public documented policies or guidelines for blended learning in this study which are essential to help participants understand what is expected from them. In addition, the future development of blended

learning programs in Saudi Arabia could give lecturers the opportunity to benefit from the flexibility of blended learning design and facilitate the enhancement of this learning process. Thus, I strongly suggest establishing a blended learning centre that gives assistance and approval to blended course designs proposed by lecturers. This centre could help in developing standards that guide the design of blended courses to facilitate the role of institutions aiming to implement blended learning. This study proposes a blended learning framework that needs further evaluation and development. The following section discusses the proposed blended learning framework as a theoretical contribution to the research of blended learning.

#### **6.6 Theoretical Contribution: A Framework for Blended Learning**

Implementing blended learning in an educational environment that has relied on a traditional didactic system for a long period requires careful strategies. This study explored the first implementation of a blended learning program in Saudi universities and found five themes that were derived from the experience of students and lecturers. These themes are key factors in formulating a blended learning framework that can be used in Saudi universities, particularly at an institutional or program level. The ultimate aim of the framework is to outline the factors that influence the implementation of blended learning. This framework can be considered as a theoretical contribution to the research in blended learning as it contains the essential elements of a theory based on description and explanation (Whetten, 1989). The elements are: *what* factors constitute this theory, *how* these factors are related, *why* the factors are proposed with this relationship, and *what* are the boundaries of generalizability. The following paragraphs discuss these elements in respect to the proposed blended learning framework.



Figure 6.1 illustrates how these five factors formulate a framework for blended learning implementation and the relationship between them. For example, the blended concept is the main factor that underpins all of the other factors. Next, the implementation and support are influenced by the concept and have an impact on the other three factors. Then, ethical considerations influence blended pedagogy and evaluation and development while it is underpinned by the concept and the implementation, including the available infrastructure. Lastly, evaluation and development factors are influenced by all of the factors starting from the blended concept up to the blended pedagogy.

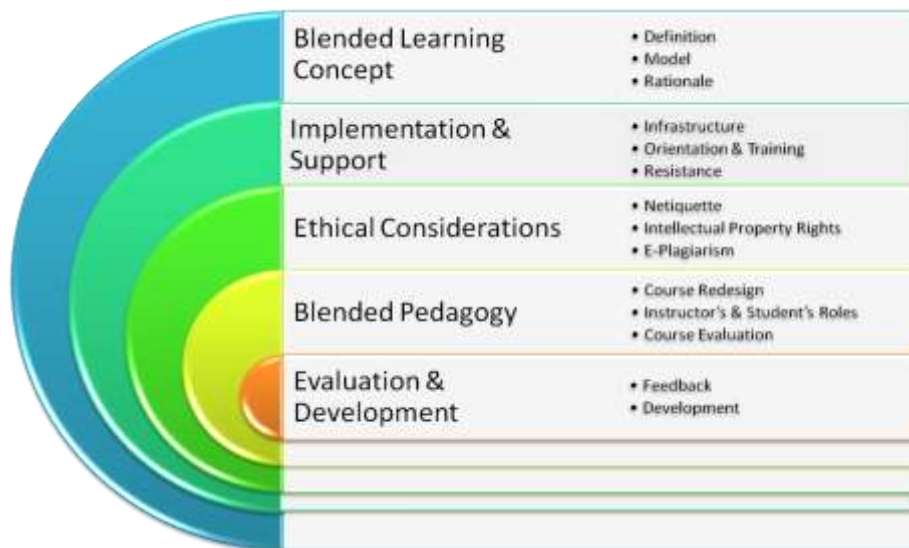


Figure 6.1: Blended Learning Framework

The implications of each factor are presented in Table 6.1. The table shows the responsibility of the institution and/or the lecturers for the implementation of each factor. These responsibilities illustrate the need for the proposed relationship between the factors. Certainly, institutions implementing blended learning at an institutional level have to support the lecturer's and student's roles. For example, institutions need to consider the lecturers' contribution to the institutional decisions such, as the blended model decision.

Table 6.1: Factors for Implementing Blended Learning

Responsible	Factor	Description
Institution & Lecturers	Blended Concept: Definition	Illustrate the definition that underpins the blended concept in which a portion of F2F learning is replaced by online learning
Institution & Lecturers	Model	Decide on a particular model that clarifies the percentage of online portion and F2F portion
Institution & Lecturers	Rationale	Clarify the rationale behind this concept with more emphasis on pedagogical issues
Institution	Implementation and Support: Infrastructure	Provide required computer labs, including Internet access. Provide lecture halls with required technologies
Institution	Orientation and Training	Introduce the blended concept, the model and the rationale to the lecturers and students. Assess students IT and study skills and suggest required training before enrolment in blended courses. Assess lecturers IT and teaching skills and suggest training accordingly. Introduce student-centred strategies to lecturers and students as an alternative approach of F2F instruction
Institution	Resistance	Address any resistance by lecturers or students
Institution & Lecturers	Ethical Consideration: Netiquette	Develop Netiquettes to guide the students and the lecturers on the proper use of the Internet in teaching and learning
	Intellectual Property Rights	Develop policies that protect the Intellectual Property Rights and introduce them to the lecturers and students
	E-plagiarism	Develop policies that help in preventing plagiarism and introduce them to the lecturers and students
Lecturers (with support from the institution)	Blended Pedagogy: Course Redesign	Select the online learning activities that can present particular course contents in a better way and digitalize the contents, e.g. developing interactive e-activities Select the F2F activities that can present the contents for on-campus time effectively
Lecturers	Lecturers' and Students' Roles	Understand the shift to becoming a facilitator and encourage student engagement in learning with various teaching strategies. Recognize how lecturer's role influences student's role in blended learning
Institution & Lecturers	Course Evaluation	Evaluate the course based on the students' perceptions and outcomes
Institution	Evaluation and Development: Feedback	Receive feedback from lecturers, students and university staff involved in the program
Institution & Lecturers	Development	Plan and continuously develop the program based on the evaluation results

It is important to emphasize that this framework is derived from participants' views with no experience of online learning which makes it relevant to the Saudi context. Therefore, evaluating this framework with results from other participants with a previous blended learning experience is suggested. However, as Whetten (1989) comments, "it is unfair to expect that theorists should be sensitive to all possible boundary constraints" (p. 492). Although this framework is specifically related to the implementation of blended learning in the universities of Saudi Arabia, I am confident that the assumptions and recommendations contained herein will be of great value to other populations facing similar challenges. Certainly, this framework will need to be assessed by experts in blended learning but this step is beyond the scope of this study and I intend to do it in a future research. This blended learning framework is important as the focus in the literature is on theories for blended learning design. It is hoped that this blended learning framework provides a broad insight on how blended learning can be implemented in Saudi Higher Education.

## **6.7 Summary**

This study indicates that blended learning has a great potential for the development of Saudi Higher Education. However, careful consideration of the concept of blended learning and pedagogy strategies is essential for promised outcomes. Although the infrastructure has been considered by the Saudi Higher Education, developing training programs for students and lecturers has to become a priority to address the lack of technical skills. Finally, the study introduces a theoretical blended learning framework composed of five themes derived from the results. This framework provides the factors that influence the implementation of blended learning in Saudi universities.

## CHAPTER VII: Conclusions and Recommendations

*“Further research and innovation in the blended learning arena will sort out the key contributions, benefits, and impact areas. During the coming decade, crucial decisions related to blended learning will continue to face all of us” (Bonk et al., 2006, p. 551).*

### 7.1 Conclusions

This study asserts that blended learning has the potential to offer an excellent learning experience in Saudi Arabia. The majority of the lecturers and students of this study expressed positive attitudes towards their blended learning experience. The study shows the readiness of the Net Generation students for this new trend in Saudi Arabia. The participants' experience in blended learning shows that the characteristics and structure of this new learning environment are compatible with the uniqueness of the Saudi culture, especially in issues related to women's education. The question here is whether decision makers would consider the consequences of blended learning on the teaching and learning experiences, as well as the culture in Saudi Arabia. From the perspective of the female Saudi students, a blended learning environment offers them the flexibility to continue their Higher Education while maintaining their own cultural values and traditions. Therefore, blended learning is clearly a feasible solution for women in Saudi Arabia.

It is anticipated that the future of blended learning will have a strong impact on the learning environment in Higher Education. However, it cannot be predicted how fast the adoption of using technologies in learning will influence the expansion of blended learning in Saudi Arabia. Moreover, it cannot be anticipated whether the movement

towards blended learning in Higher Education will extend to pre-university education in Saudi Arabia or not. If this happens, this will raise serious arguments with educationalists that strongly support the “socio-cultural reproduction built into the institutional structures of schools” (Somekh, 2007, p. 114). The issue here is the nature of the rationale for implementing blended learning in primary and secondary schools. The quality of the learning experience in the blended learning environment is expected to be a concern of parents. Another argument could be about the readiness of primary and secondary school students for blended learning. As independent learning skills are required for blended learning, the question is whether the students in pre-university education have the maturity to be learners in a blended learning environment. Certainly, face-to-face learning provides a rich environment for guidance, socialising and interaction, which young learners require in order to be motivated. However, the blended learning can be a model that is a compromise between homeschooling and a school education.

For the Higher Education, as the scope of the study, a number of key factors for successful blended learning are highlighted. Most of the results of this research are strongly related to online instruction because it is a new approach in the Saudi educational environment. This study indicates that the blended learning model, which incorporates a high percentage (70%) of online instruction, affects the perceptions of the participants. In addition, the study shows that Saudi university lecturers have limited experience in developing web-based teaching methods as well as student-centred strategies in face-to-face class time. Although several studies have proved the effectiveness of blended learning, poor utilization of blended pedagogy is identified in this study as a significant obstacle. Providing infrastructure and web-based learning tools are not enough to move to a new learning approach that integrates online learning.

In order to ensure the efficiency of blended courses, it is recommended that lecturers' and students' skills are assessed and then the required training is provided, as well as having a user-friendly LMS. Several Saudi projects which are under development, aim to provide a means for online teaching resources in Arabic which would facilitate blended learning in Arabic institutes. Of course, there are always challenges of adaptation when a new approach is offered. This research provides insight into the challenges of implementing blended learning in Saudi Higher Education.

The adoption of blended learning in a traditional-didactic environment requires listening to the perceptions of students and lecturers to enhance the learning process. In addition, investigating the experience of students and lecturers can assist in understanding the quality of the learning environment. Feedback from students and lecturers via regular course evaluations and other means have to be used accurately for the development of blended courses. Decision makers of blended learning who give consideration to students and lecturers requirements and expectations are likely to provide a successful blended learning program. Littlejohn and Pegler (2007) assert that "the experience of learning and teaching using computers and the Internet is different, and individuals and institutions that use e-learning need to recognize what these differences are and how to work with them" (p. 211). It is necessary to understand and act upon the concept that lecturers and students need to appreciate the importance and the effectiveness of blended learning.

It is noteworthy to mention that the study is already making an impact on practice. The preliminary results that I submitted to the Vice-Dean prior to her meeting with the lecturers were discussed in the meeting. For example, I recommended for the online quizzes the use of the LMS feature of questions randomization to be conducted on-

campus with the attendance of the lecturer to prevent any cheating. Consequently, the randomization feature was used by most of the lecturers. Conducting online quizzes on-campus was discussed as a good approach and some lecturers agreed with this recommendation as long as the labs are available.

## **7.2 Implications and Recommendations**

The undeniable advantages of blended learning in Saudi Higher Education will hopefully encourage decision makers to look at implementing blended learning programs in universities. However, the teaching and learning experience of the blended learning environment is influenced by a number of factors which formulate the proposed blended learning framework in Chapter six, section 6.6. Thus, blended learning could be an efficient and effective approach for particular contexts. The movement towards blended learning in Saudi Higher Education should consider its impact on the learning and teaching experiences and the quality of learning.

Although this study indicates that blended learning provides a better learning environment for females in Saudi Arabia from a cultural view, the teaching and learning experience raised some challenges that have to be addressed. In particular, e-pedagogy requires more efforts from lecturers to encourage student motivation and engagement. In addition, the face-to-face instruction is identified as a challenge which has to be enhanced to provide students with a better face-to-face learning environment. Understanding the rationale and practicing the shift from teacher-centred to student-centred strategies requires efforts and time.

Consequently, with the rapid growth of e-learning in Saudi Arabia, and the movement to provide blended learning programs in universities, developing a well-structured long

term plan for blended learning implementation is urgent. According to the identified advantages and challenges that were faced by the participants of this study and their view of the future of blended learning in Saudi Arabia, utilizing the proposed blended learning framework to implement programs is highly recommended. It is hoped that the proposed framework would assist decision makers in developing such a plan.

The institution has a major role in implementing blended learning. A new learning environment has to be managed and supported sufficiently in order to succeed and achieve desirable outcomes. The term *blended learning* has to be conceptualized in the Arabic language. Decision makers have to understand and act upon the concept that lecturers and students need to appreciate the importance and the effectiveness of e-learning and blended learning. Orientation for blended learning with more consideration of the rationale of the blended format has to be provided. In addition, developing ethical guidelines for students as part of Universities' Rule of Conduct can help prevent plagiarism and protect the copyright of authors and developers. In addition, institutions need to endorse different models of blended learning according to the nature of the courses instead of one typical model for all courses. However, there has to be a consideration to a restricted percentage for online instruction that does not exceed 70% to retain the advantages of the face-to-face environment.

In respect to lecturers, careful management strategies for supporting them, such as Wi-Fi on-campus, flexibility in attendance and financial incentive have to be considered. Lecturers of blended courses are a major key factor in the success of blended learning. Lecturers need to have the motivation to teach blended courses in order to ensure a successful experience for themselves and their students. Certainly, they need to maintain sufficient teaching and IT skills. This new learning environment demands clear



guidelines from lecturers, including detailed syllabi and rubrics. It is required that the lecturer is able to manage online interaction, integrate online and face-to-face activities, and encourage student motivation and engagement. Because Saudi students have not been introduced to online learning prior to their enrolment in blended courses, it is recommended that students' technical skills be assessed prior to enrolment in blended courses. Training has to be offered to students who lack the level of required skills. Significantly, the needs of students who do not have Internet access at home have to be considered. For example, students have to be offered the priority access to Internet labs on-campus and consideration for late assignment submission. In addition, undergraduate students of blended courses need support and guidelines on the development of study skills which can be offered by student service centres. Furthermore, a well-structured annual evaluation that investigates students' and lecturers' perceptions of blended learning has to be implemented for the development of the program.

The development of the National Centre of E-learning and Distance Learning projects which aims to provide Arabic support materials for lecturers is a necessary support for blended courses. It is evident that the offered training courses are mainly focused on technical professional development and blended learning pedagogy has been given less consideration. However, there is an excellent opportunity to address this challenge in its early implementation. In order to offer the flexibility of blended design while avoiding design pitfalls, it is very important to establish a Blended Learning Department in the National Centre that provides consultation and accreditation of blended programs and courses. It is suggested that this department develops standards for course design as well as criteria for participating lecturers and students. It should also focus on the new role of the lecturer as a facilitator in this new learning environment. Furthermore, developing a Lecturer Development Program that offers a Blended Pedagogy Certificate, such as the

Certificate provided by Sloan-C, is highly recommended for lecturers who want to teach blended courses as long as it is modified to accommodate the Saudi education environment.

### **7.3 Challenges and Limitations**

Due to the new emergence of blended learning in Saudi Arabia, literature that addresses blended learning with a reduction of face-to-face instruction time in Saudi Arabia is scarce. Thus, the discussion inevitably had to be linked to international research or local studies that integrate web-based instruction as a supplement to traditional instruction. In addition, one of the challenges that I encountered was to obtain any documented policy of the implementation of blended learning in Saudi universities.

Moreover, it was a challenge to obtain detailed data from the participants. The students, in particular, only responded in short and repeated answers. The majority of the participating students did not seem to be able to express their feeling and opinions freely. This is because the Saudi education system does not offer students the opportunity to express their opinions verbally, which could affect the student role of being a part of qualitative research. To the best of my knowledge, qualitative research is rarely used in Arabic contexts and almost all the Arabic educational studies that I reviewed were based on the scientific paradigm. Consequently, the participants' readiness to be part of social research and express their perceptions in language was limited. The participating lecturers were significantly more comfortable expressing their views than the students. I think that the use of the teaching strategy that is based on lecturing has affected the students' ability to express their opinions and views and share their experience in more detail. However, in interviews, the use of probing questions,

which varied according to the student's response, helped me encourage the students to expand their answers and express their views in more depth.

A further limitation of the study is that the sample used, which is from the first implementation of blended learning in Saudi universities, limits the results of the perceptions to a particular group of students and lecturers. The blended courses were only offered in selected subjects to first- and second-year female students. In addition, the participating lecturers held Bachelor's degrees, had limited college-level teaching experience and little or no experience teaching blended courses.

Moreover, I was required to translate all of the research instruments into Arabic because English is not commonly used for communication in Saudi Arabia. The collected data was then translated into English and interpreted accordingly. These processes were challenging because I had to look for less ambiguous Arabic words for method questions and find the most appropriate English translation for the participants' Arabic responses. In addition, online observation revealed some data that included excerpts of comments that students made in Arabic of which the full insight could not be captured through translation.

Furthermore, blended learning features could offer advantages for the Saudi segregated education by enhancing online interaction between male lecturers and female students. However, this was not available because the study sample was limited to the blended courses offered by the University which were taught by female lecturers.

#### **7.4 Suggestions for Further Research**

Based on the review of the literature of blended learning, there is a high demand for further research. In particular, the shortage of Arabic resources in blended learning emphasizes the need for continuous research in Arab contexts. For example, further research investigating the perceptions of lecturers holding various degrees, experience, and specialties towards blended learning is recommended. Also, it is suggested that inexperienced lecturers of this study be interviewed in the future to investigate whether their views might have changed. Furthermore, exploring the perceptions of educationalists in Saudi Arabia towards the impact of the blended pedagogy on traditional teaching strategies would enrich the debate about blended learning in Saudi Higher Education.

Moreover, exploring the perceptions of blended learning in graduate studies is highly recommended. It is necessary to investigate whether blended learning can provide a better quality of learning experience for graduate students than undergraduate students. Further interesting research would be to investigate the impact of the use of online discussion by trained lecturers on student experience and also to explore the required skills for teaching blended courses for Saudi lecturers.

In addition, there is an opportunity for an investigation of how blended learning can be experienced in other Arabic curricula such as scientific subjects. Investigating the challenges of blended courses design and deriving a framework for this significant stage of blended course implementation are strongly recommended, particularly for different disciplines. Further study would help to identify the study skills of undergraduate students that influence adapting blended learning. Furthermore, investigation of students' performance in blended courses using quantitative and confirmatory studies is

recommended. Finally, there is very little literature on the use of Web 2.0, including blogs, wikis and other social networking in blended learning. It is highly recommended that researchers investigate the impact of utilizing these tools in blended courses on student engagement. In addition, further study would help to identify the challenges of using Web 2.0 in blended courses in Saudi Arabia.

### **7.5 Personal Reflection on the Thesis Journey**

My PhD journey in the field of education was a challenge as my background is in the field of pure science. I obtained my first and Master's degree in Computer Information System and Computer Science respectively. My interest in e-learning and blended learning is a result of being a lecturer in Computer Education. After reading some literature on e-learning, I found that blended learning is an educational approach that has been recently utilized in Higher Education in other countries and enhanced learning processes. I have become convinced that blended learning is likely to be the future of e-learning in Higher Education. Therefore, I developed my PhD proposal on exploring the perceptions of Saudi female undergraduate students and lecturers towards blended learning.

For my personal skills development, my PhD research in education gave me the opportunity to develop further critical thinking skills that I did not achieve through my previous graduate studies in a scientific field. In addition, as a result of my research into the ethical issues of blended learning, I have started to recognize the importance of my role as a lecturer to prevent plagiarism among my students. Furthermore, I am now convinced that active learning strategies need to be encouraged in the Saudi Higher Education system to enhance students' learning skills and engagement.

Finally, as a married Saudi female with four children, I recognize how blended learning would be a flexible learning approach for women in Saudi culture. I selected this topic based on my interest in exploring a new learning environment that could help Saudi women to continue their education while meeting their traditional and cultural obligations. The positive conclusions of the research have increased my passion to do further research and development in blended learning in Saudi Arabia and particularly for females.

## **Appendices**

## **Appendix A: Saudi Educational System Credential**



## SAUDI ARABIA

### YEARS OF EDUCATION

1→6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
			A			B		MTT		b	c	f			o	o		
						C		NUU			d	g						
						D		OVV			e	h						
						E		PWX			f	l						
						F		QY			l	m						
						G		RZ			i	n						
						H		Sa			j							
						I		T			k							
						J		U			n							
						K		V										
						L												

### CREDENTIALS OR DOCUMENTATION

#### Secondary

- A شهادة الكفاءة المتوسطة (Intermediate Education Certificate)
- B الشهادة الثانوية العامة/ شهادة المرحلة الثانوية (General Secondary Education Certificate); awarded in science and literature tracks; three years, requiring credential **A** for admission
- C دبلوم المدرسة التجارية (Commercial Secondary School Diploma); three years, requiring credential **A** for admission
- D دبلوم المدرسة الزراعية (Agricultural Secondary School Diploma) ; three years, requiring credential **A** for admission
- E دبلوم المدارس الثانوية المهنية (Vocational Secondary School Diploma); three years, requiring credential **A** for admission
- F الشهادة الثانوية العامة الشاملة/المطورة (Comprehensive Secondary Certificate); phased out in early 1990s; three years, requiring credential **A** for admission
- G الشهادة الثانوية الشرعية (الدينية) (Religious Secondary Education Certificate) ; three years, requiring credential **A** for admission
- H الشهادة الثانوية لمدارس تحفيظ القرآن (Quranic Secondary School Certificate) ; three years,
- I الشهادة الثانوية العامة في التربية الفنية (General Secondary Certificate of Art Education); three years, requiring credential **A** for admission
- J الشهادة الثانوية للتربية الرياضية (Secondary Physical Education Certificate); three years, requiring credential **A** for admission
- K شهادة الدراسة الثانوية لمعهد تدريب المعلمين (Secondary Teacher Training Institute Certificate); phased out in early 1990s; three years, requiring credential **A** for admission
- L دبلوم المعهد الصحي (Health Institute Diploma) ; three years, requiring credential **A** for admission

#### Postsecondary

- M دبلوم مركز العلوم و الرياضيات (Science and Mathematics Center Diploma); two years, requiring credential **B** for admission
- N دبلوم الكلية المتوسطة لتدريب المعلمين (Junior College Teacher Training Diploma); two years,

- requiring credential **B** or **K** for admission
- O دبلوم المعهد العالي في العلوم المالية و التجارية (Diploma of the Higher Institute for Financial and Commercial Sciences); two years, requiring credential **B** or **C** for admission
- P دبلوم علم الأرض (Earth Science Diploma); two years, requiring credential **B** for admission
- Q شهادة الخدمة الاجتماعية (Certificate of Social Work); two years at Higher Institute of Social Work, requiring credential **B** for admission
- R شهادة تنبؤ جوي (شهادة في علم الأرصاد الجوية) (Certificate in Meteorology); two years, requiring credential **B** for admission
- S شهادة المعهد الفني العالي (Higher Technical Institute Certificate); two years, requiring credential **E** for admission; phased out in 1980s
- T دبلوم تمريض (Diploma in Nursing); two to three years, requiring credential **B** for admission
- U الشهادة الجامعية المتوسطة (Intermediate University Certificate); two to three years at the Intermediate/Junior Colleges of Technology; requires credential **A, B, C, D,** or **E** for admission
- V شهادة إتمام دورة معهد الإدارة العامة (Institute of Public Administration Certificate of Completion); two to three years, requiring credential **B** or **C** for admission
- W دبلوم متوسط في تقنية الحاسبات (Diploma of Computer Technology); two and one-half years, requiring credential **B** for admission
- X دبلوم المعهد الفني العالي (Higher Technical Institute Diploma); one year, requiring credential **S** or **U** for admission
- Y كفاءة التدريس في المدارس المتوسطة (Intermediate School Teaching Qualification); one year at Science and Mathematics Centers, requiring credential **M** for admission
- Z شهادة إتمام دورة مكثفة (Certificate of Completion, Intensive Program); one year of teacher training, requiring credential **N** for admission
- a بكالوريوس العلوم العسكرية/البحرية/الطيران (Bachelor of Military Science/Naval Science/Aviation); three years, requiring credential **B** for admission
- b إجازة/بكالوريوس في الآداب، إجازة/ بكالوريوس في العلوم، إجازة/بكالوريوس في تربية/بكالوريوس/المستنس (Bachelor of Arts/ Bachelor of Science/Bachelor of Education/Bachelor/ license); four years, requiring credential **B-H** (depending on field of study and secondary scores) for admission
- c البكالوريوس في العمارة (Bachelor in Architecture); five years, requiring credential **B** for admission
- d البكالوريوس في العلوم الصيدلانية (Bachelor of Pharmaceutical Sciences); five years, requiring credential **B** for admission
- e بكالوريوس الزراعة و الطب البيطري/بكالوريوس في الطب البيطري (Bachelor of Agriculture and Veterinary Medicine, Bachelor of Veterinary Medicine); five years, requiring credential **B** for admission
- f بكالوريوس في طب الأسنان (Bachelor of Dental Medicine); five or six years, requiring credential **B** for admission
- g دكتور صيدلة (Doctor of Pharmacy); six years, requiring credential **B** for admission
- h بكالوريوس في الطب و الجراحة (Bachelor of Medicine and Surgery); six years, requiring credential **B** for admission
- i الدبلوم الخاص/الدبلوم العام [Special Diploma/General Diploma ( in education)]; one year, requiring credential **b** for admission
- j الدبلوم العالي [Higher Diploma (in education)]; one year, requiring credential **b** for admission
- k شهادة التأهيل (Certificate of Qualification); one year of teacher training, requiring credential **b** for admission
- l الدبلوم الخاص (في الترجمة) [Special Diploma (in Translation)]; two years, requiring

- credential **b** for admission
- m دبلوم الدراسات الدبلوماسية (Diplomacy Studies Diploma); two years, requiring credential **b** for admission
- n ماجستير (Master); two years, requiring credential **a** or **b** for admission
- o دكتوراه (Doctorate); three years, requiring credential **n** for admission

#### GRADING SCALE

##### Secondary

Percentage	Description	Translation
90-100	ممتاز	Excellent
75-89	جيد جدا	Very Good
60-74	جيد	Good
50-59	مقبول	Pass
0-49	راسب	Fail

##### Postsecondary

Percentage	Letter	5-point scale	4-point scale	Description	Translation
90-100	A	4.0-5.0	3.6-4.0	ممتاز	Excellent
80-89	B	3.0-3.9	2.6-3.59	جيد جدا	Very Good
70-79	C	2.0-2.9	1.6-2.59	جيد	Good
60-69	D	1.0-1.9	1.0-1.59	مقبول/ضعيف	Pass
0-59	F	0.0-0.9	0.0-.99	راسب	Fail

#### POSTSECONDARY INSTITUTION RECOGNITION BODY

Ministry of Higher Education: [www.mohe.gov.sa](http://www.mohe.gov.sa)

#### RESOURCES FOR ADDITIONAL INFORMATION

Abalhassan, Khalid M. *Higher Education in Saudi Arabia 2007*. Ministry of Higher Education, Riyadh, 2007.

Hendrickson, Peggy Bell. "The Kingdom of Saudi Arabia's Educational System," *NAFSA Admissions wRap Up*, February 2007

[www.moe.gov.sa](http://www.moe.gov.sa) (Ministry of Education)

[www.mohe.gov.sa](http://www.mohe.gov.sa) (Ministry of Higher Education)

[www.moh.gov.sa](http://www.moh.gov.sa) (Ministry of Health)

[www.scfhs.org](http://www.scfhs.org) (Saudi Commission for Health Specialties)

[www.tvtc.gov.sa/English](http://www.tvtc.gov.sa/English) [Technical and Vocational Training Corporation (replaced General Organization for Technical Education and Vocational Training)]

[www.rcjy.gov.sa](http://www.rcjy.gov.sa) (Royal Commission for Jubail and Yanbu)

[www.educationusa-mena.org](http://www.educationusa-mena.org) (Education USA, Middle East/North Africa Region)

[www.ncaaa.org.sa](http://www.ncaaa.org.sa) (National Commission for Academic Accreditation and Assessment)

[www.sacm.org](http://www.sacm.org) (Saudi Arabian Cultural Mission)

Submitted by  
Margaret Wenger  
Educational Credential Evaluators, Inc.  
October 2008

Table A-1: The most common LMS features and their descriptions

Feature	Description
Course Information	Course information and syllabus available for view and download
Course Materials	Digital materials available for download which can be text, audio, video
Announcement	View the course announcement posted by lecturer
Calendar	For recording tasks and events
File Management	Exchange files with lecturer and classmates
Assignments	students can check the assignments, the due dates, and submit the assigned work
Quizzes	Can be done online with instant assessment
Chat	For synchronous communication
Forum (online discussion)	For asynchronous communication by posting messages
Email	Send email to the classmates and lecturer
Profile	To modify the profile and view classmates profiles
Who is online	Check who is online and send invitation for instant chatting
Links	To share Web resources
Grades	Students can check their grades
Technical Support	To send a message to the technical support

Table A-2: Details of the Contents of the Blended Courses:

Course Number and Name	Course Description
101 IS: Introduction to Islamic Culture.	(2 credit-hours) This subject aims to introduce the student to the Islamic culture; manifestation of the Muslims attitude towards other cultures; explaining the characteristics of Islam, such as: Universality, Comprehensibility, integrity, consistency with human nature (instinct), reason, and science. This subject also explains the Islamic tenet and its fundamentals, such as: To believe in Allah, the Hereafter, the Angles, the Holy Books, the Messengers, and Divine Destiny.
102 IS: Islam and the Construction of Society	(2 credit-hours) This course studies the following: The concept of the Muslim society; its basics, its method and characteristics, means of consolidating its social ties; the most important social problems, the Islamic philosophy of family affairs, marriage: its introductory formalities, aims and effects. It also deals with ways of strengthening the family bonds
101 AL: Language Skills	(2 credit-hours) This course helps students develop basic language skills. It helps them improve their pronunciation, writing, and reading comprehension. The course material comes from received Arabic to make sure that students learn correct Arabic.
103 AL: Arabic Basic Writing	(2 credit-hours) The course helps students develop basic writing skills. Through exercises they can improve their mastery of spelling and sentence structure problems.
101 ENG: Introduction to English Language	(3 credit-hours) This course is divided into two parts. ENGLISH 101 PART 1 introduces learners to various skills and strategies required for effective listening and speaking. It provides activities that learners may use as practice for listening and speaking. Prospective language teachers and learners from other fields may benefit from this course as it discusses the language skills needed by everyone for effective communication. ENGLISH 101 PART 2 is designed to acquaint learners with some important basic writing skills. The module focuses on written communication, such as writing a memorandum, resume, research report, research proposal and research papers, etc, which are the pinnacles of academic writing. They encompass writing creatively, academically, seeking quotations, facts and information from books, magazines, internet sites, personal interviews and so on.

## **Appendix B: Preliminary Results and Pilot Study Report**

## **Some Preliminary Results - submitted to the Vice-Dean for Academic Affairs – Girls campus**

Following are brief recommendations for improving the use of the LMS in blended courses:

- 1- **Announcements:** I recommend the use of course announcements to post information that students like to read in order to encourage their visiting to the announcement page. For example, the lecturer can post the course syllabus, general guidelines for successful, criteria of activities evaluation and detailed criteria of online discussion evaluation, exams dates, and any cancellation of a lecture...etc.
- 2- **Online quiz:** I recommend using the LMS feature of randomization questions selections for each quiz and conduct the quiz on-campus with the attendance of the lecturer to prevent any cheating. In addition, the online quiz should be used to link online and face-to face-instruction by providing questions form online and in-class materials.
- 3- **File Manager:** I recommend using file manager tool in the LMS to upload PowerPoint and word files instead of uploading them in the online discussion. The practiced approach of posting the files in the discussion page might cause the students to miss the uploaded files if the thread is moved to the next page.
- 4- **Online Discussion:** Assessment record of each student should be provided as a tool in the LMS
  - a- Provide students with criteria of participation evaluation
  - b- Provide creative topics to be discussed to increase student motivation.
  - c- Provide feedback from the lecturer and facilitate interaction among students
  - d- Peers evaluation could be employed in large classes
- 5- **Lecture Notes and i-Tutorial:** I recommend using both lecture notes and i-tutorial. Although a series of short audio and video files are recommended than long audio video files to avoid boring and confusing if a student paused the recording.
- 6- **Online-Attendance:** Participation in asynchronous online activities should not be required on a daily basis but weekly basis to allow more time for student to participate in case of Internet unavailability.



## Pilot Study Report

The goal of performing the pilot study was to review the research design and formulate focus group's and interview's questions. In addition, the pilot study was conducted to increase the reliability, validity and practicability of the questionnaire (Cohen et al., 2007) and all other data collection methods. During the pilot study, I was able collect baseline data about the history and characteristics of the blended learning program in the College. This enabled me to understand the developed strategies for the implementation of blended courses.

The Dean of the College of Applied Studies and Community Services granted permission for conducting the pilot study of the blended learning program in the College. The fieldwork of the pilot study was to consist of four components: an initial on-campus interview with the supervisor, instructors, and students participating in the blended learning program; two weeks of students' independent data collection with diaries; follow-up on-campus focus groups; and, in-depth interviews with students and instructors.

It is noteworthy that I was informed by the administration that the blended learning model is subject to change in coming semesters. At the end of the semester, a meeting between the instructors and the Dean of the College was held to evaluate the first stage of blended learning implementation. During the meeting, a developed blended learning model was introduced for the next semester. In addition, the instructors were requested to create digital lecture materials to be available online for the next semester.

During the pilot study, all blended courses were designed in one format in which traditional instruction and online instruction were alternated. The distribution of credit has been 60% for traditional instruction (including mid-term and final exams) and 40% for online instruction (including 10% for participation in online discussions, 20% for electronically submitted assignments, and 10% for online quizzes).

The pilot study participants were instructors and undergraduate students from the College of Applied Studies and Community Services in King Saud University. Three instructors participated in a focus group and in-depth interviews. They taught the following blended courses: 101 ENG, 101 AL and 101 IS, which are required for most of the University colleges. The participating students are sophomores enrolled in more than one blended course. Seven students agreed to contribute their diary records, but only one participant submitted her diary. Ten students agreed to participate in two focus groups; five students in each, but only four students attended the focus group. In-depth interviews were held with four students. These students were enrolled in two blended courses in the previous semester and were enrolled in two blended courses during the semester of this study.

In regard to the data collection methods, I examined the four proposed methods: observation, diaries, focus group, and interview. The pilot study enabled me to develop reliable methods for the main study. The pilot results were not considered in the results and discussions as the model of the blended courses was different to the major study.

## **Appendix C: Data Collection Methods Forms**

**Observation Agenda Form**  
**(Face-to-Face class time)**

Date:

Time:

Course Number:

---

- Type of instructions
  
- interaction – dialogue
  
- student engagement
  
- lecturer feedback

## Observation Agenda Form (Online learning)

Date:

Time:

Course Number:

---

- Announcement
  
- Online Discussion
  - Topics
  
  - interaction – dialogue
  
  - students engagement
  
  - lecturer role
  
- Assignments
  
- Lecture notes
  
- Online quizzes
  
- Others

## Diary of a Lecturer of a Blended Learning Course

Dear lecturer...

Please fill in your diary every day you teach your blended course for a period of two to three weeks. I suggest that you make notes in your diary immediately after finishing your work to avoid forgetting your thoughts.

If any of the instructions listed below do not apply to your experience, please state that. Also, please let me know if there is any part of these instructions that you do not understand.

Thank you for participating. I welcome your suggestions for the diary format and instructions for the future.

Best wishes,

Reem Alebaikan

alebaikan@gmail.com

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Name (optional): \_\_\_\_\_

Date: \_\_\_\_\_

I taught today via the mode:     F2F     Online

List the study activities that you have prepared and offered today:

Describe what you experienced and how you felt about the following:

- Teaching blended course
- The psychology effect of teaching blended courses on you
- Your computer and Internet skills and its effect on your teaching
- Jusur tools: assignments, discussions, online quiz...etc.
- Your suggestions for developing blended learning program for lecturers and students

*Note: For the sake of easy communication with participants, all methods were translated into the Arabic language.*

## Reflective Essay of a Student Enrolled in a Blended Course

Dear student...

Please fill in this reflective essay for your blended course (*course number*).

If any of the instructions listed below do not apply to your experience, please state that. Also, please let me know if there is any part of these instructions that you do not understand.

Thank you for participating. I welcome your suggestions for the essay format and instructions for the future.

Best wishes,

Reem Alebaikan

alebaikan@gmail.com

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Name (optional):            Student No. (optional):            Date:

My study today is  Face to Face lecture  e-learning  Computer Lab

Duration of study:

List the study activities that you have done today (e.g., submitting assignment, participating in online discussion, etc.).

Describe what you experienced and how you felt about the following:

- The type of instruction (i.e., F2F or Online):
- What emotions do you associate with blended learning (e.g., anxiety, excitement, etc.)?
- Your computer skills:
- Your time management:
- Interaction with students and lecturer:
- The Learning Management System tool:
  - Using online discussions:
  - Submitting homework:
  - Using Online Exams:
  - Reviewing Lectures:
- Others:

*Note: For the sake of easy communication with participants, all methods were translated into the Arabic language.*

## Students Focus Group

1. Are you familiar with the phrase 'blended learning'?
2. Do you consider your mode of learning to be blended?
3. What are the advantages of blended learning, from your point-of-view?
4. Do you feel that blended learning is appropriate to the Saudi Higher Education system? Why?
5. Do you face any technical obstacles?
6. Do you face any other obstacles?
7. Do you get any feedback from your lecturer?
8. Is e-learning creating a new learning community for you?
9. What is your perception of using data from other sources without making specific reference to the resources?
10. Are you aware of plagiarism?
11. Do you have any suggestions or comments?

*Note: For the sake of easy communication with participants, all methods were translated into the Arabic language.*



## Interview with Students

1. What was your initial expectation for the blended course?
2. How well do you think blended learning fits into Saudi culture, particularly for females?
3. How well do you feel you are meeting the course requirements?
4. How do you feel about your current progress?
5. In which areas do you feel you have made progress?
6. What has helped maximize your learning in this course?
7. What is your view of the blended course activities?
8. Do you prefer one of the two delivery modes (F2F and online) over the other?
9. Is there anything that prevents you from learning effectively?

*Note: For the sake of easy communication with participants, all methods were translated into the Arabic language.*

## Lecturers Focus Group

1. Are you familiar with the phrase 'blended learning'?
2. Do you consider your mode of teaching to be blended?
3. What are the advantages of blended courses from your point of view?
4. Do you feel that blended learning is appropriate in the Saudi Higher Education system? Why or why not?
5. Are you convinced about the usefulness of blended learning?
6. Did you take part in any decision-making?
7. Do you face any technical obstacles?
8. Do you face any pedagogical difficulties in blended teaching?
9. Do your students face any difficulties in blended learning?
10. Are you aware of e-plagiarism in the online discussions of your course?
11. Does the University have any guidelines and policies about plagiarism?

*Note: For the sake of easy communication with participants, all methods were translated into the Arabic language.*

## Interview with Lecturers

1. How well do you think blended learning fits into Saudi society?
2. Do you face any obstacles in teaching blended courses?
3. Do your students of blended courses face any obstacles?
4. How do you describe your current blended learning practices?
5. Explain the positive and negative issues.
6. What is your view of the future of blended learning in Saudi Arabia?
7. Your suggestions or comments

*Note: For the sake of easy communication with participants, all methods were translated into the Arabic language.*

## **Example of Observation Agenda (Face-to-Face class time)**

Date: 20-12-1429H

Time: 9:00 a.m.

Course Number: 102 IS

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- Type of instructions

Lecturing – The lecturer does not use any materials or tools.

- Interaction – dialogue

The lecturer does not enable dialogue except for discussing the course activities. During the lecture there is no interaction between the students and the lecturer. The student's role is passive.

- Student engagement

There is no behavioural engagement during the lecture. It is difficult to recognize whether the students are cognitively engaged. However, some of them seem to be interested while listening to the lecture.

- Lecturer feedback

The lecturer talks about the assignments deadline at the beginning of the face-to-face class time. She also encourages the students to participate in the online discussions.

## **Example of Observation Agenda (Online learning)**

Date: 11-11-1429H

Time: 8:00 a.m.

Course Number: 103 AL- 2 groups

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- **Announcement**

In the first group webpage there is only one announcement in the course webpage. The announcement is automatically generated from the system which indicates that an assignment was posted. The lecturer did not post any Arabic announcement. The page of the announcements may not get the attention of the students as there are no Arabic statements. The announcement was posted on Friday; allowing five days before the submission deadline. The second group webpage has two announcements from the lecturer, posted in Arabic regarding the lecture time and the assignment deadline

- **Online Discussion**

- **Topics**

First group: There is a general thread, inquiry thread, and a lecture notes thread. In addition there is a thread for the first topic to be discussed. Only one student replied with an inquiry about the topic asking for clarification. However, she posted her participation referring to the text book information.

Second group: the lecturer developed the threads with four sections: general thread, topics thread, complaints thread, lecture notes thread. the general thread is full of the students participations. The first topic was posted by the lecturer. some students replied with similar messages as the topic is actually a question that can be answered from the text book.

- **interaction – dialogue**

The online discussions of the two groups include interaction in the inquiry and complaints threads. there is no dialogue in the online discussions.

- **students engagement**

The students are more engaged in the general threads. Many posts are in the general threads but without any interactions.

- **lecturer role**

The lecturer posts the topics and the lecture notes. She answers the students inquiries but no facilitating for the interaction in the topics threads.

- **Assignments**

The assignment page includes the time of uploading, the deadline for the submission and indicates whether the assignment was submitted or not. The page is a user-friendly.

- **Lecture notes**

It is posted in a PowerPoint format in the online discussion page. The students are required to post a reply to the thread to confirm downloading.

- **Online quizzes**

No online quizzes have been posted yet.

- **Others**

## Example - Diary of a Lecturer of a Blended Learning Course

Dear lecturer...

Please fill in your diary every day you teach your blended course for a period of two to three weeks. I suggest that you make notes in your diary immediately after finishing your work to avoid forgetting your thoughts.

If any of the instructions listed below do not apply to your experience, please state that. Also, please let me know if there is any part of these instructions that you do not understand.

Thank you for participating. I welcome your suggestions for the diary format and instructions for the future.

Best wishes,

Reem Alebaikan

alebaikan@gmail.com

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Name (optional): \_\_\_\_\_

Date: 29-12-1429 H

I taught today via the mode:     F2F     Online

### **e-learning (online instruction- off-campus)**

List the study activities that you have prepared and offered today:

**Uploading lecture notes, Assessing Hw2 & Hw3, Uploading Hw4**

Describe what you experienced and how you felt about the following:

- Teaching blended course :  
I feel ambitious...I do not prefer traditional teaching... e-learning has helped in decreasing some teaching duties and add other types of duties
- The psychology effect of teaching blended courses on you: I am keen to use new teaching methods to follow the development of education systems around the world.. but I am worry about the chance of unsuccessful implementation
- Your computer and Internet skills and its effect on your teaching :  
I thank God that I have very good computer skills which helps me in e-learning teaching
- Jusur tools: assignments, discussions, online quiz...etc.  
The system requires more development.. uploaded files capacity has to be increased.. the online discussions require more features such as the availability of quantity of student posts
- Your suggestions for developing blended learning program for lecturers and students  
Providing e-learning workshops special for e-learning lecturers.. spread announcements in public news and encourage the university lecturers to attend these workshops.  
Provide orientations and brochures about e-learning and its advantages for the students and their guardians.

## Example of a Lecturer Interview

Researcher: How well do you think blended learning fits into Saudi society?

I think that we have a good start of implementing e-learning and we are still in the first step and I believe we can reach a higher level to make e-learning suitable for our education system

Researcher: What are the reasons for the delay in using ICT?

Internet connections is not available 24 hours for all of us lecturers and students.. sometimes I promise students to upload an assignment but due to the internet connection I can not...

Researcher: what about our society?

I expect that we will have great movement to the best..

Today, students are not used to this new system .. they do not access the course page regularly.. some students post topics in the general thread which are not suitable academically and from manner views .. they do not consider the online discussion as a learning discussion

Researcher: What is your role in this matter?

I put an announcement about the proper topics..

Next semester I will remove the general thread.. two days ago one student posted congratulation message about a football match .. and some students replied to this post... also I informed the technical support about this matter and the limited authority of the LMS in which I cannot delete student posts that are not suitable..

The problem that some students do not realize the goal of e-learning.. there has to be guidelines and recommendations that help students to understand this new learning approach.

Researcher: do students understand the objective of the general thread?

We usually announce in-class and in labs that they should post topics that are beneficial for them and peers.

Researcher: do you expect that they understand what 'beneficial' could mean?

We say post topics that are not related to your personnel life..for example the advantages of particular foods.. reading Quran... There are some students who understand this issue.. but the most students do not..

I wish that there are guidelines on the top of the online discussion.. and I can name the general thread general course discussions..

Researcher: What are the obstacles you faced in teaching blended courses?

I spend long time on online discussion interaction.. replying on students queries.. assessing assignments.. moderating general thread takes long time.. because I am the only supervisor and I should control all posts

Researcher: What about your way of evaluating?

I told students that each topic has 2 scores and general thread allow you to get bonus if you miss one of the topics of the online discussion...

Every lab time you will have an assignment and a topic to discuss. It is open participation for one week and will be closed the week after and during the following week contact me if you had any problem related to the last assignment or topics.

Researcher: Did you give your students a course plan that includes due dates of the course activities?

I have not handed a course plan including due dates of activities..  
Next semester I will put specific thread for course syllabus and guidelines to be successful in the course.. there will be also frequent announcements

Researcher: What are the obstacles you have faced in teaching your blended course?  
I have used different version of MS Word and this was addressed..  
Sometimes I receive assignments that is not readable... so I announce in a thread called assignments where I announce any unreadable file  
I wish to have authority to manage online discussion  
I will post students grades online to allow them see their grades  
Regarding the lecture note, two of the lecturers of my course are responsible of making PowerPoint for all of the groups

Researcher: How do you describe your current blended learning practices? Explain the positive and negative issue, please?  
Blended courses are good option ... but I prefer to have small number of groups.. this semester I have 6 groups .. each 45 -60 students.. last semester 60-80 students..  
e-learning is very effective.. announcement interaction queries.. but the problem is how to manage large number of students. But e-learning with its advantages and disadvantages is a good teaching approach..  
I prefer to have 2 groups each 70 students or 3 group each 40-50.. total of about 150 students is reasonable



## Example of a Lecturer Interview –Arabic

الباحثة: كيف تترين ملائمة التعلم المزيج بالنسبة للمجتمع السعودي؟  
اعتقد أننا بدأنا بداية جيدة في استخدام التعليم الإلكتروني.. ولكن لا زلنا في الخطوات الأولى.. واطن أنه بإمكاننا الوصول إلى مراحل متقدمة في التعليم الإلكتروني تتناسب مع نظام التعليم لدينا.

الباحثة: وما هي الأسباب في رأيك التي أخرت استخدام التقنية في التعليم؟  
الانترنت غير متوفر على مدى الاربع وعشرين ساعة لجميع أعضاء هيئة التدريس والطالبات. بعض الأحيان أوعد طالبتي بتحميل الواجب ولكن لا أستطيع بسبب عدم توفر الانترنت.

الباحثة: وماذا عن المجتمع؟  
أتوقع أننا متجهين إلى الأفضل. اليوم الطالبات غير معتادات على هذا النظام الجديد.. لا يتصفحن صفحة المقرر بشكل مستمر.. بعض الطالبات يكتبن مواضيع في صفحة النقاشات العامة غير لائقة أكاديميا ولا أخلاقيا.. اعتقد أنهن لا يعين أن هذه النقاشات هي جزء من نقاش تعليمي.

الباحثة: وما هو دورك بالنسبة لهذا الأمر؟  
لقد وضعت إعلان عن المواضيع المناسبة.. وأنوي إزالة النقاشات العامة في الفصل القادم.. من يومين كتبت إحدى الطالبات في النقاش العام تهنئة بمناسبة فوز فريق كرة! وأجابت بعض الطالبات بالتأييد لهذه التهنية.. لقد أخبرت الدعم الفني عن هذه المشكلة وأني ليس لدي صلاحية في مسح ما تكتبه الطالبات أو تعديله.. المشكلة هنا أن بعض الطالبات لا يدركن الهدف من التعليم الإلكتروني.. ينبغي أن يكون هناك إرشادات ونصائح تساعد الطالبات على استخدام التعليم الإلكتروني بشكل صحيح.

الباحثة: هل تدرك الطالبات الهدف من النقاش العام؟  
نحن نعلن دائما في وقت المحاضرة وفي المعمل أنه ينبغي كتابة مواضيع مفيدة للجميع.

الباحثة: وهل الطالبات يدركن ماذا تعني الاستاذة بقولها "مواضيع مفيدة"؟  
نقول للطالبات اكتبن مواضيع لا علاقة لها بحياتك الشخصية.. مثل فوائد بعض الأطعمة.. قراءة القرآن.. بعض الطالبات يستوعبن ذلك.. ولكن الأغلبية لم يفهمن بعد.. أتمنى وجود إرشادات عن هذا الأمر في صفحة النقاشات.. بإمكانني تسمية النقاشات العامة نقاشات المقرر العامة..

الباحثة: ما هي المعوقات التي واجهتك في تدريس مقررات التعلم المزيج؟  
قضاء وقت طويل في متابعة النقاشات الإلكترونية.. الاجابة على استفسارات الطالبات.. تقييم الواجبات.. والاشراف على النقاشات العامة يستغرق وقت طويل كذلك.. خاصة أنني المشرفة الوحيدة على المنتدى وينبغي علي إدارته بشكل صحيح.

الباحثة: ما هي طريقتك في التقييم؟  
أخبرت طالباتي أن كل موضوع عليه درجتين وأن النقاش العام يؤهل للحصول على درجات إضافية في حال لم تتمكن طالبة من المشاركة في المواضيع الاجبارية.. وفي وقت المعمل هناك واجب وموضوع للنقاش مفتوح لمدة أسبوع وسيغلق الاسبوع الذي يليه ومن تواجه مشكلة بإمكانها الاتصال بي.

الباحثة: هل وزعت على طالباتك خطة للمقرر تشمل تاريخ محدد للأنشطة المطلوبة؟  
لا لم أوزع تفصيل بالتواريخ.. ولكن الفصل القادم سأضع في المنتدى وصف المقرر وإرشادات معينة للطالبة على التفوق.. كما ساحرص على إضافة العديد من الاعلانات.

الباحثة: ما هي المعوقات التي واجهتك في تدريس مقررات التعلم المزيج؟

لقد استخدمت أكثر من نسخة من الورد وذلك لأن بعض ملفات الواجبات تحفظها الطالبات بنسخ وورد مختلفة فيصعب فتحها وقراءتها. وضعت اعلان في المنتدى في خانة الواجبات للطالبات اللاتي سلمن واجبات لم أتمكن من فتحها.

الصلاحيات في المنتدى محدودة وأتمنى أن يتم توسيعها. كما أنني انوي إضافة درجات الطالبات في الموقع حتى تتمكن الطالبات من مراجعة درجاتهن. اما المحاضرات فيتم اعداد العرض من قبل اثنتين من الزميلات لجميع شعب المقرر

الباحثة: كيف يمكن أن تصفي تجربتك الحالية في مقررات التعلم المزيح؟ ما هي الايجابيات والسلبيات؟  
التعلم المزيح تجربة مميزة ولكني أرى ضرورة تقليل عدد الطالبات في الشعبة.. هذا الفصل لدي 6 شعب في كل شعبة 45 إلى 60 طالبة.. والفصل الماضي من 60- 80 طالبة في الشعبة.. اعتقد أن التعليم الالكتروني فعال جدا.. من اعلانات إلى استفسارات وتواصل ولكن المشكلة هي في إدارة عدد كبير من الطالبات. ومع ذلك التعليم الالكتروني بمميزاته ومساوئه يعتبر طريقة جيدة في التدريس. ما أفضله هو تدريس شعبتين في كل شعبة 70 طالبة أو ثلاث شعب في كل شعبة 40-50 طالبة . 150 طالبة في الفصل الدراسي أمر معقول.

## Example of a Student Interview

Researcher: Have heard of the term “blended learning”?

No, I have not.

Researcher: What were your initial expectations for the blended course?

I like it . I expect it to be distance learning so I was anxious... now I like to learn in an e-learning [blended] course.

Researcher: How well do you think blended learning fits into Saudi society?

I think it is appropriate for Saudi society.. for example, the system provides security for the activities.. any one who is not a member of the group cannot access it. The e-learning forces people to use the Internet and this will help to improve their literacy. The Internet is spreading into Saudi houses very fast.

Researcher: How do you feel about your current progress and in which areas do you feel you have made progress?

I am pleased of my progress. I enjoy all of the activities.. I submitted all of the assignments and I participated in the required discussions but I missed the one that was posted during the holiday because I did not expect it

Researcher: What has helped maximize your learning in this course?

I feel that online quiz is helpful. Also the PowerPoint slides [lecture notes] are very useful.. I like to study from them .. the design and the formatting including the pictures encourage me to study from the slides not from the module. I did not print the slides because they are a lot .

Researcher: Do you prefer Blended courses or traditional courses?

I prefer blended courses.. however, I think blended learning is not appropriate for problem-solved courses where we need to have face-to-face lectures in order to understand equations for example.

## Example of a Student Interview

Researcher: Have heard of the term “blended learning”?

no

Researcher: What were your initial expectations for the blended course?

I have heard that it has online discussions so I did not like it.. after that I realized how flexible and good it is and now I really like e-courses

Researcher: Have your GPA affected by the e-learning courses?

Yes, I was able to increase my GPA . I had good grades in my e-learning courses.. I had two e-courses last semester.

Researcher: Does your current e-learning lecturer inform you of the online discussion assessment approach?

I know that 40% on online activities. But I am not sure about the distribution on each activity.

Researcher: How well do you think blended learning fits into Saudi society?

Unfortunately, the old generation does not accept technologies in learning... it is new for them.. and now suddenly we have e-learning!

I know some students do not have computers at home and their families prevent them from owning any... however, if I have the decision of applying e-learning I will provide sufficient computer labs for students.

Researcher: How do you feel about your current progress and in which areas do you feel you have made progress?

I am pleased of my progress.. I found that online quiz is a very useful activity that has helped me to gain credits. Also the lecture notes is very helpful.. I like to study from a nice formatted PowerPoint slides as the one uploaded by the lecturer. I prefer submitting my assignments online because it is easier than writing on paper. Prior to the final exam, I will listen to audio/video file of a lecture that was suggested by the lecturer.

Researcher: What has helped maximize your learning in this course (i.e., staff support, other participants, etc.)?

Online discussion facilitates interaction with the course lecturer.. Also the lecturer informs us of specific time for activities submissions.

Researcher: Is there anything that prevents you from learning effectively? How can you address this?

nothing

Researcher: Do you prefer blended courses or traditional courses?

I prefer blended courses and I think that it is suitable for all of my courses as I am studying in the department of special education (disabled and gifted)

Researcher: what is your opinion towards using others words in your online participation?

This is the way we can participate.

## Example of a Student Interview -Arabic

الباحثة: هل لديك خلفية عن مصطلح التعليم المزيح؟  
لا لم أسمع به

الباحثة: ماذا كان توقعك المبدئي لمقررات التعلم المزيح؟  
أعجبتني المقررات. توقعتها تعليم عن بعد لذلك كنت قلقة نوعا ما.. أما الآن فأنا أحب دراسة مقررات التعليم الإلكتروني (المزيح)

الباحثة: إلى أي حد تعتقد أن مقررات التعلم المزيح ملائمة للمجتمع السعودي؟  
اعتقد أنها مناسبة للمجتمع السعودي .. فمثلا النظام يوفر خصوصية عند تنفيذ الأنشطة.. فليس من حق غير الأعضاء الدخول على صفحة الموقع مثلا. كذلك التعليم الإلكتروني يلزم الناس باستخدام الانترنت وهذا يساعد في تحسين الثقافة.. الانترنت بدأت في الانتشار بشكل كبير في كل بيت سعودي.

الباحثة: ما هو مدى رضاك عن مستواك الدراسي في هذه المقررات وفي أي الأنشطة تجد نفسك؟  
انا سعيدة بتحصيلي في مقرر التعليم الإلكتروني وأجد المتعة في القيام بالأنشطة الدراسية. قمت بتسليم جميع الواجبات وشاركت في النقاشات الإلزامية إلا أنني فاتني أحد مواضيع النقاش الذي تم نشره في وقت الإجازة فلم أكن أتوقع أن يكون علينا واجب وقت الإجازة

الباحثة: ما هو الذي ساعدك على تحسن مستواك في هذا المقرر؟  
أرى أن الاختبارات القصيرة (الكويز) مساعدة في رفع الدرجات. كذلك عروض البوربوينت جدا مفيدة. أحب أن أدرس منهم وخاصة تصاميم العروض تجعلها شيقة للدراسة أكثر من المذكرة.. إلا أنني لم أطبعها لأن عدد الصفحات كثير.

الباحثة: هل تفضلين مقررات التعلم المزيح أم المقررات التقليدية؟  
أفضل مقررات التعلم المزيح ولكن لا أظن انها مناسبة للمقررات التعليمية والمسائل التي تحتاج إلى شرح في وقت المحاضرة لفهمها.

## Example of a Student Interview –Arabic

الباحثة: هل لديك خلفية عن مصطلح "التعليم المزيج"؟  
لا

-عرفت الباحثة بمصطلح التعلم المزيج-  
الباحثة: ماذا كان توقعك المبدئي لمقررات التعليم المزيج؟  
لم اكن أرغب في التسجيل بهذا المقررات بعد أن سمعت بوجود المنتديات.. ولكن بعد أن استخدمتها وجدتها سهلة  
والآن تعجبنى مقررات التعليم الالكتروني – المزيج.

الباحثة: هل تأثر معدلك الجامعي بنتائجك في هذه المقررات؟  
نعم. لقد تمكنت من رفع معدلي التراكمي بعد حصولي على نتائج جيدة في مقررين من مقررات التعليم الالكتروني  
أنهيتها الفصل الماضي.

الباحثة: هل تخبركم أستاذة المقرر بطريقة تقييم النقاش في المنتديات؟  
الذي أعرفه أن الأنشطة الالكترونية عليها 40% ولكن ليس لدي خلفية عن طريقة توزيع الدرجات

الباحثة: إلى أي مدى تجد ان مقررات التعليم المزيج ملائمة للمجتمع السعودي؟  
للأسف الجيل السابق لا يتقبل استخدام التقنية في التعليم! لأنه جديد عليهم. والآن بدأ التعليم الالكتروني فجأة! أعرف  
بعض الطالبات ليس لديهن أجهزة حاسب في البيت لأن أهلهم يرفضون شراءه. أنا لو بيدي قرار تطبيق التعليم  
الالكتروني وفرت معامل حاسب كافية للطالبات في الجامعة.

الباحثة: ما هو مدى رضاك عن مستواك الدراسي في هذه المقررات وفي أي الأنشطة تجد ان نفسك؟  
أنا جدا سعيدة بمستواي. وجدت الاختبارات القصيرة (كويز) جدا مساعد في رفع الدرجات. كذلك المحاضرات  
الالكترونية منسقة بعرض بوربوينت جيد ترفعها الأستاذة على الموقع وهذا جدا رائع. كذلك أفضل تسليم الواجبات  
الكثورنيا لأنه أسهل من الكتابة والتسليم بالورق. أمر آخر هو وجود محاضرات صوتية أنوي سماعها قبل الاختبار  
النهائي.

الباحثة: ما هو الذي ساعدك على تحسين مستواك الدراسي؟  
منتديات النقاش سهلت التواصل مع الأستاذة. كذلك اعلان الاستاذة عن مواعيد تسليم الواجبات والاختبارات في  
الموقع.

الباحثة: هل واجهتك أي معوقات في دراستك للمقررات؟  
لا. أبدا

الباحثة: هل تفضلين مقررات التعلم المزيج أم التقليدي؟  
أفضل التعليم المزيج واعتقد أنها مناسبة لكل المقررات وخاصة أنني أدرس تخصص تربية خاصة.

الباحثة: ما هو رأيك في من ينسخ كتابة الآخرين للمشاركة فيها في المنتديات؟  
هذه هي الطريقة التي يمكننا المشاركة بها.

## The Development of the Preliminary Categories

Categories	Lecturers' Perceptions	Students' Perceptions
<ul style="list-style-type: none"> <li>• <b>BL Concept</b></li> <li>• definition of blended learning</li> <li>• flexibility and accessibility</li> <li>• education development</li> <li>• literacy</li> <li>• female concerns</li> <li>• conservative families</li> <li>• computer illiterate</li> <li>• student satisfaction</li> <li>• students performance</li> <li>• student motivation</li> <li>• student engagement</li> <li>• lecturer resistance</li> <li>• lecturer satisfaction</li> <li>• lecturer suggestions</li> <li>•</li> <li>• <b>E-Plagiarism</b></li> <li>• intellectual property rights</li> <li>• <b>E-Pedagogy</b></li> <li>• structure of online discussion</li> <li>• lecturer cooperation</li> <li>• organized teaching</li> <li>• online attendance</li> <li>• time on demand</li> <li>• <b>Infrastructure and support</b></li> <li>• administration</li> <li>• computer/internet skills</li> <li>• course subject</li> <li>• group capacity</li> <li>• Internet availability</li> <li>• Labs shortage</li> <li>• orientation &amp; training</li> <li>• Time management skills</li> <li>• studying skills</li> <li>• student self-discipline</li> <li>• <b>LMS tools</b></li> <li>• assignments</li> <li>• evaluation</li> <li>• i-tutorial</li> <li>• lecture notes</li> <li>• printed module</li> <li>• online discussions</li> <li>• online quiz</li> <li>• technical problems</li> <li>• <b>Improvement</b></li> </ul>	<ul style="list-style-type: none"> <li>• definition of blended learning</li> <li>• flexibility and accessibility</li> <li>• education development</li> <li>• literacy</li> <li>• female concerns</li> <li>• conservative families</li> <li>• computer illiterate</li> <li>•</li> <li>• students performance</li> <li>• student engagement</li> <li>• lecturer resistance</li> <li>• lecturer satisfaction</li> <li>• lecturer suggestions</li> <li>•</li> <li>• <b>E-Plagiarism</b></li> <li>• intellectual property rights</li> <li>• structure of online discussion</li> <li>• lecturer cooperation</li> <li>• organized teaching</li> <li>• online attendance</li> <li>• time on demand</li> <li>•</li> <li>• <b>Infrastructure and support</b></li> <li>• administration</li> <li>• computer/internet skills</li> <li>• group capacity</li> <li>• Internet availability</li> <li>• Labs shortage</li> <li>• orientation &amp; training</li> <li>• Time management</li> <li>• student self-discipline</li> <li>•</li> <li>• <b>LMS tools</b></li> <li>• assignments</li> <li>• evaluation</li> <li>• i-tutorial</li> <li>• lecture notes</li> <li>• online discussions</li> <li>• online quiz</li> <li>• technical problems</li> <li>•</li> <li>• <b>Improvement</b></li> </ul>	<ul style="list-style-type: none"> <li>• definition of blended learning</li> <li>• flexibility and accessibility</li> <li>• education development</li> <li>• literacy</li> <li>• female concerns</li> <li>• conservative families</li> <li>• computer illiterate</li> <li>•</li> <li>• student satisfaction</li> <li>• students performance</li> <li>• student motivation</li> <li>• student engagement</li> <li>•</li> <li>• <b>E-Plagiarism</b></li> <li>• structure of online discussion</li> <li>• online attendance</li> <li>• time on demand</li> <li>•</li> <li>• <b>Infrastructure and support</b></li> <li>• administration</li> <li>• computer/internet skills</li> <li>• course subject</li> <li>• group capacity</li> <li>• Internet availability</li> <li>• Labs shortage</li> <li>• orientation &amp; training</li> <li>• Time management skills</li> <li>• studying skills</li> <li>• student self-discipline</li> <li>•</li> <li>• <b>LMS tools</b></li> <li>• assignments</li> <li>• evaluation</li> <li>• i-tutorial</li> <li>• lecture notes</li> <li>• printed module</li> <li>• online discussions</li> <li>• online quiz</li> <li>• technical problems</li> <li>•</li> <li>• <b>Improvement</b></li> </ul>

## Example of Coding Process using Nvivo

**Tree Nodes**

Name	Sources	References	Created On	Created By	Modified On	Modified By
BL advantages	6	9	01/03/2009 18:37	R.	06/04/2009 10:12	R.
Blended Learning term	12	16	28/02/2009 10:46	R.	12/04/2009 10:48	R.
course subject	6	7	01/03/2009 10:39	R.	30/03/2009 20:07	R.
E-Pedagogy	12	21	01/03/2009 11:47	R.	06/04/2009 10:12	R.

**Reference**

<Internals\students.interviews\Student Interview-10> - \$ 1 reference coded [10.82% Coverage]

Reference 1 - 10.82% Coverage

I prefer blended courses.. however, I think blended learning is not appropriate for problem-solved courses where we need to have face-to-face lectures in order to understand equations for example.

<Internals\students.interviews\Student Interview-10> - \$ 1 reference coded [9.97% Coverage]

Reference 1 - 9.97% Coverage

yes I prefer blended courses and I wish that all my courses are blended..this type of learning has helped me to increase my GPA last semester where I was enrolled in an Arabic blended course.

<Internals\students.interviews\Student Interview-11> - \$ 1 reference coded [7.75% Coverage]

Reference 1 - 7.75% Coverage

I prefer traditional courses because I feel that live interaction is important in learning..if should have blended courses I do not prefer more than 2 blended courses per semester especially that not

Start

R. Sour Click here to begin 7 Unfiltered

Perspectives on Blen...

06:27



## Example of Coding Process using Nvivo

The screenshot displays the Nvivo software interface. On the left, a tree view shows the project structure under 'Sources', including folders for 'Internals', 'Instructors Diaries', 'Instructors Focus Groups', 'Instructors Interviews', 'meetings', 'Observations', 'Online Discussions', 'Students Diaries', 'Students Focus Groups', 'Students Interviews', 'Technicians Interviews', 'Externals', 'Memos', 'Search Folders', 'All Sources', and 'All Sources Not Embedded'. The main window is titled 'Instructors Interviews' and contains a table of references and a text document.

Name	Nodes	References	Created	Created By	Modified On	Modified By
Instructor interview-1	17	26	05/03/2009	R.	04/04/2009 10:53	R.
Instructor interview-2	14	20	06/03/2009	R.	10/11/2010 06:55	R.
Instructor interview-3	10	14	08/03/2009	R.	04/04/2009 13:23	R.

The text document below the table contains the following content:

**Researcher: who had helped you?**  
 My family members: my children and my husband... sometime I ask my colleagues..the technical support..  
 For example powerpoint I seek help from my friend to do it after I prepare the contents.. even there is one of my friend have the same case.. she said I feel that I was stupid that I did not the computer

**Q3: What are the obstacles that blended learning students might encounter?**  
 The internet connections is an obstacle facing students.. and social commitment take students away of their learning duties.. beside students do not manage their times.. if she study the day that she is off-campus this will help her.. but I think sleep in that morning.. students are busy with their families commitment especially if she is a wife and a mother

**Researcher: how do you see the affect of criteria of scores in blended courses on student performance?**  
 It affects her grade clearly if she studies well and performs the online activities this will help her to increase her grade and vice versa.. One of the student said she access the internet once a week and do her online activity on that day.. but the problem is that she might miss the assignment that might posted tomorrow.. I think that students should organize their time to check course announcement page frequently during the week also we should employ e-mail in this process because most people check their e-mail daily.. I employ the email this semester to receive students queries and I feel that this has helped them

At the bottom of the window, a status bar shows 'R: Sources 2 | References 2 | Editable | Line: 83 | Column: 0' and a 'start' button.

## **Appendix D: Ethical Research Forms**



School of Education and Lifelong Learning

## Certificate of ethical research approval

### STUDENT RESEARCH/FIELDWORK/CASEWORK AND DISSERTATION/THESIS

You will need to complete this certificate when you undertake a piece of higher-level research (e.g. Masters, PhD, EdD level).

To activate this certificate you need to first sign it yourself, then have it signed by your supervisor and by the Chair of the School's Ethics Committee.

For further information on ethical educational research access the guidelines on the BERA web site: <http://www.bera.ac.uk/publications/guides.php> and view the School's statement in your handbooks.

---

**READ THIS FORM CAREFULLY AND THEN COMPLETE IT ON YOUR COMPUTER** (the form will expand to contain the text you enter).  
**DO NOT COMPLETE BY HAND**

---

**Your name:** Reem Alebaikan

**Degree/Programme of Study:** 4 year PHD in Education

**Project Supervisor(s):** Dr. Salah Troudi

**Your email address:**

[ra238@exeter.ac.uk](mailto:ra238@exeter.ac.uk)  
[alebaikan@gmail.com](mailto:alebaikan@gmail.com)

---

**Tel:** +966505270264  
07879630818

---

**Title of your project:** Perceptions of Blended Learning in Saudi Universities

**Brief description of your research project:**

The primary goal of this study is to explore the perceptions of Saudi students and instructors towards blended learning in undergraduate classes through qualitative methods. This study aims to explore the experiences of students and instructors during the initial implementation of blended learning in Saudi Universities.

**Give details of the participants in this research (giving ages of any children and/or young people involved):**

The study participants are instructors of various blended courses and undergraduate students from various colleges enrolled in the blended courses provided by the College of Applied Studies and Community Services at King Saud University. The participants are experiencing blended courses in the first stage of blended learning program at Saudi Universities.

**Give details regarding the ethical issues of informed consent, anonymity and confidentiality (with special reference to any children or those with special needs) a blank consent form can be downloaded from the SELL student access on-line documents:**

The Dean of the College of Applied Studies and Community Services granted permission for conducting the study of the blended learning program in the College. During the first week of the semester, I will meet with the course instructor to get a better understanding of the course structure and content and ask for the instructor's consent and students' consent to participate in the study. In the first meeting with the students, the study will be explained as well as having any of their questions answered. Students will be asked to sign consent forms which will include the aim of the study and declare the confidentiality and anonymity of the data. Participants will also have the right to withdraw from the study at any time.

**Give details of the methods to be used for data collection and analysis and how you would ensure they do not cause any harm, detriment or unreasonable stress:**

In this study, the qualitative methods are selected because of the nature of the research questions; they are the most appropriate methods for gathering and analysing the participants' perceptions towards the blended learning in Saudi universities

The students will be asked to record their experiences about the blended course in diaries. Data will be collected from the diaries, focus groups and in-depth interviews. In-depth interviews will be the main method and will be generated from the participant diaries and focus groups.

Data will be transcribed to be put into a format suitable for analysis, with considerations of intending to use the computer-assisted qualitative data analysis software, NVivo.

**Give details of any other ethical issues which may arise from this project (e.g. secure storage of videos/recorded interviews/photos/completed questionnaires or special arrangements made for participants with special needs etc.):**

In all interviews and focus groups, the discussion will be tape-recorded after gaining permission from participants.

**Give details of any exceptional factors, which may raise ethical issues (e.g. potential political or ideological conflicts which may pose danger or harm to participants):**

---

*This form should now be printed out, signed by you below and sent to your supervisor to sign. Your supervisor will forward this document to the School's **Research Support Office** for the Chair of the School's Ethics Committee to countersign. A unique approval reference will be added and this certificate will be returned to you to be included at the back of your dissertation/thesis.*

---

**I hereby certify that I will abide by the details given above and that I undertake in my dissertation / thesis (delete whichever is inappropriate) to respect the dignity and privacy of those participating in this research.**

---

Chair of the School's Ethics Committee  
October 2005

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I confirm that if my research should change radically, I will complete a further form.

Signed:  ..... date: 2 October 2008


*N.B. You should not start the fieldwork part of the project until you have the signature of your supervisor.*

This project has been approved for the period: October 2008 until: October 2009

By (above mentioned supervisor's signature):  ..... date: 02/10/2008

*N.B. To Supervisor: Please ensure that ethical issues are addressed annually in your report and if any changes in the research occurs a further form is completed.*

SELL unique approval reference: D/03/09/1

Signed:  ..... date: 02/10/2008  
Chair of the School's Ethics Committee

This form is available from  
<http://www.education.ex.ac.uk/students/index.php> then click on On-line documents.

## Participants Consent Form

I have been fully informed about the aims and purposes of the project.

I understand that:

There is no compulsion for me to participate in this research project and, if I do choose to participate, I may at any stage withdraw my participation.

I have the right to refuse permission for the publication of any information about me and any information which I give will be used solely for the purposes of this research project, which may include publications.

All information I give will be treated as confidential; the researcher will make every effort to preserve my anonymity

.....

.....

(Signature of participant )

(Date)

.....

(Printed name of participant)

One copy of this form will be kept by the participant; a second copy will be kept by the researcher.

If you have any concerns about the project that you would like to discuss, please contact the researcher:

Reem Alebaikan, email: [alebaikan@gmail.com](mailto:alebaikan@gmail.com)

## **Appendix E: Published Papers**

This article was downloaded by: [Alebaikan, Reem]

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### Blended learning in Saudi universities: challenges and perspectives

Reem Alebaikan \*; Salah Trowdi \*

\* University of Exeter, UK

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## Blended learning in Saudi universities: challenges and perspectives

Reem Albaik\* and Salah Troudi

*University of Exeter, UK*

*(Received 29 November 2008; final version received 5 July 2009)*

This study is an attempt to investigate the nature of obstacles and challenges encountered at Saudi universities while implementing a blended learning approach. A literature review of blended learning rationale and designs, and the status of web-based education in Saudi higher education are demonstrated. Three main challenges of applying blended learning in Saudi higher education are addressed. One major challenge to be considered in the implementation of blended learning in Saudi universities is the adaptation of this element in the traditional university culture. Finding the right design of blended learning is another challenge that is discussed in detail. Furthermore, the time issue is considered a crucial challenge facing blended learning faculty. Practical recommendations that would facilitate transition to a blended learning university environment are presented. It is hoped that this study will help to provide insight for the faculties and the decision-makers throughout higher education in Saudi Arabia. Although this investigation is specifically related to the implementation of blended learning in the universities of Saudi Arabia, we are confident that the assumptions and recommendations contained herein will be of great value to other populations facing similar challenges.

**Keywords:** blended learning; challenges of blended learning; higher education; Saudi Arabia

### Introduction

The Saudi Ministry of Higher Education has encouraged the use of information technology (IT) for teaching and learning among its faculties and students. Projects are continuously developed to provide adequate IT infrastructure as well as content development for higher education students. One of the major challenges encountered in Saudi higher education is to provide college education to the rapidly growing student population in the country. The capacity of universities and colleges in Saudi Arabia is limited compared with the rapid growth of students applying for college education. To tackle this problem, the Ministry of Higher Education endeavours to integrate web-based instruction with traditional instruction in universities.

Around the world, various academic practices have been used to explore blended learning, its effectiveness and challenges. Rooney (2003) declared that blended learning has been identified by the American Society for Training and Development as one of the top 10 trends to emerge in the knowledge delivery industry. Although there are a wide variety of designations for blended learning, the most common

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blended learning definition refers to an integration of online activities and traditional face-to-face class activities. Graham, Allen, and Ure (2003) documented three definitions: combining instructional modalities or delivery media, combining instructional methods, and combining online and face-to-face instruction. The first two definitions are too broad because they include most courses, which use at least two instruction methods or modalities (i.e. face-to-face lecture and textbook readings). The last definition, which combines online and face-to-face instruction, can be implemented in three ways: providing online materials similar to the course contents, providing online materials as supplementary resources, and replacing portions of the face-to-face contents with online materials. Sharpe et al. (2006) observed that the most common type of blended learning is the provision of supplementary resources for courses that are conducted along mainly traditional lines through an institution-supported virtual learning environment. Moreover, at the 2005 Sloan-C Workshop on Blended Learning, the participants adopted the definition of blended learning where a portion of face-to-face time is replaced by online activity in a planned, pedagogically valuable manner (Laster et al. 2005; Picciano 2006). In this study, the Sloan-C workshop blended learning definition is used because it matches the goal of the e-learning project in the Saudi Ministry of Higher Education. This goal is to adopt blended learning that combines e-learning and traditional learning, in which students do not need 100% class attendance whilst keeping in touch with faculty members through online learning (Al-Ahmari 2009; Abdul Ghafour 2008).

In the next sections, the rationale for blended learning and various blended learning designs are presented. This study demonstrates the status of web-based education in higher education in Saudi Arabia. The challenges of applying blended learning in Saudi higher education are discussed. It is hoped that this study will help to provide insight for the faculties and the decision-makers throughout higher education in Saudi Arabia.

### **Rationale for blended learning**

Innovations in technology have influenced teaching and learning, as shown in studies that have demonstrated the effectiveness of blended learning. This effectiveness is primarily related to the quality of the learning experience, which is defined by Wend (2006) as the variety of experiences within the university's concerns wherein students perceive and interact; thereby in turn affecting their learning opportunities. In order to provide quality experiences for learners, some important elements have to be managed, such as technology, the structure of the course, the instructor, technical support, assignments (Lionarakis and Parademetriou 2003), student engagement (Oliver and Herrington 2003) and learning flexibility.

Blended learning has been implemented with various designs and has shown a considerable positive effect on the learning process. Harvard Business School faculty DeLacey and Leonard (2002) reported that students not only learned more when online sessions were added to traditional courses, but student interaction and satisfaction improved as well. Obviously, the most common purpose of blended learning is the ability of combining the best of both worlds; traditional and online learning (Young 2002; Graham, Allen, and Ure 2003). Young (2002) points out that not all students learn the same way, therefore the traditional approach is not ideal for all students. Blended learning provides more guidance to online learning by integrating

face-to-face learning with distance learning, while it provides flexibility and accessibility to traditional learning by incorporating online learning.

Moreover, blended learning is appropriate for students who live far away from the university or have other commitments that conflict with the on-campus class time. Distance learning programmes may not provide the learning environment students require or may not provide specific degrees such as studies that require experimental work. Moreover, Sharpe et al. (2006) point out that blended learning designs have been implemented in higher education courses to tackle problems created by large group sizes. Studies have overwhelmingly shown that blended learning is used to improve pedagogy, increase cost-effectiveness, access and flexibility, and simplify revision (Graham, Allen, and Ure 2005; Osguthorpe and Graham 2003).

A study by Owston, Garrison, and Cook (2006) about blended learning in Canadian universities observed that instructors of a Canadian university assured that face-to-face contact was necessary for some first-year university students who need more guidance, which was the purpose for transforming fully online course to a blended format. Also, studies from institutions such as Stanford University and the University of Tennessee have proven that blended learning is better than both traditional methods and individual forms of e-learning technology alone; Singh and Reed state that "these researches give us confidence that blending not only offers us the ability to be more efficient in delivering learning, but more effective" (2001, 6).

A review of UK undergraduate experience of blended learning by Sharpe et al. (2006) concluded that a number of UK universities utilised blended learning to provide flexibility of provisions, and enhance campus experiences. Some universities promote blended learning as a strategy, particularly offering flexibility in the time and place of learning. In addition, implementing blended learning in some universities was in response to the practical challenges being encountered by faculties and/or in response to student feedback such as poor staff-student contact, large classes and inconsistency in quality and quantity of feedback between markers. Finally, institutions that had been identified by Sharpe et al. (2006) as successful implementers of blended learning had highly contextualised and specific rationales for their adoption of technology.

### **Blended learning in Saudi universities**

#### ***Web-based education***

Internet access has been available to the public in Saudi Arabia since 1999. In December 2000 there were approximately 200,000 Internet users in Saudi Arabia, and by 2005 this number had grown to 2.54 million, making the growth 1170% (Communications and Information Technology Commission 2007). Importantly, the number of the Internet users has jumped to 6.4 million in 2007, which is nearly one-third of the Saudi population that is about 24 million (see Figure 1). One reason for the growth is that about 60% of the Saudi population is comprised of young people who are 20 years old or younger (ArRiyadh Development Authority n.d.), and they are adapting to new technologies faster than expected. It is estimated that Internet use will continue growing rapidly in Saudi Arabia, which raises an issue of providing new learning strategies that include use of technology.

To meet the growing demand for higher education in the country, 19 public universities have been established and distributed around the country, four of which opened in 2005 (Ministry of Higher Education n.d.). A few private universities and colleges

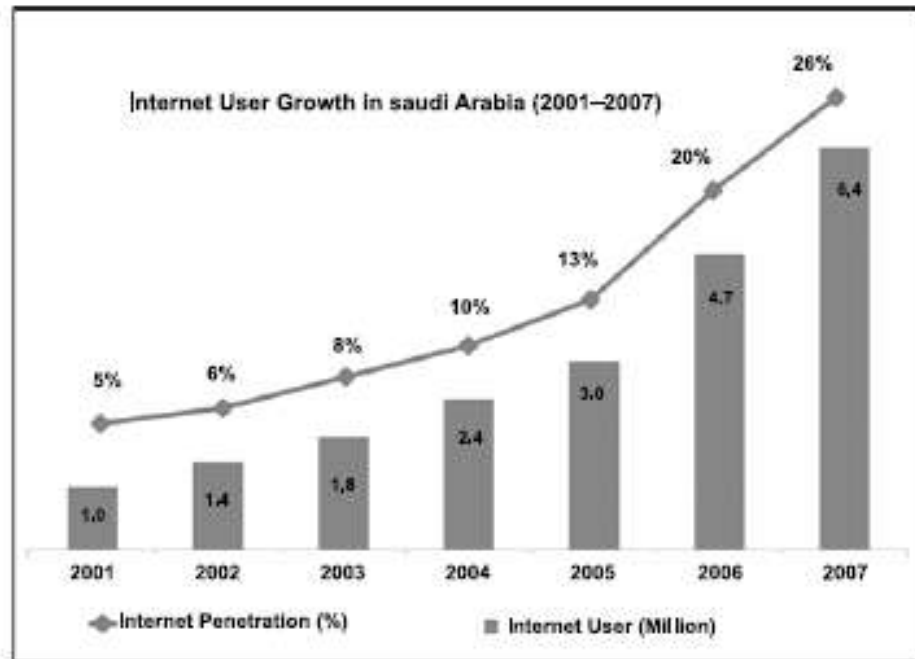


Figure 1. Internet users in Saudi Arabia.  
Source: <http://www.citc.gov.sa>.

have been established recently such as the Arabic Open University and King Sultan University. There were only two public universities located in Riyadh, the capital of Saudi Arabia – namely, King Saud University and Imam Muhamed Bin Saud University – which are considered to be the two largest universities in Saudi Arabia. In early 2007, the public Girls Colleges located in Riyadh have been converted to a new public university known as Prince Nora bint Abdulrahman University. The traditional didactic, lecture-based classroom is the standard in Saudi public universities, with a few programmes implementing distance learning. Recently, some universities have started to undertake web-based instruction in their distance learning programmes.

In recent years, some universities and institutions have provided different commercial learning management systems, such as Blackboard, WebCT, and Tadanas (an Arabic-based learning management system) to facilitate learning and teaching online. However, the number of faculty members utilising these systems is very limited. One reason could be that the universities and institutions do not provide enough training workshops for online learning systems. A few faculty members, who are interested in e-learning and have adequate skills, provide online materials as supplementary resources for their courses. A few years ago, two universities – namely, King Fahd University of Petroleum & Minerals and King Abdulaziz University – established e-learning centres that provide assistance to their faculties to develop interactive web-based supplementary material for traditional courses. King Abdulaziz University, located in Jeddah, was the first Saudi university that employed a virtual learning environment by offering bachelor degrees through online learning. Imam Muhamed Bin Saud University began offering a distance learning programme that delivers instruction entirely through the Internet in August 2007.

### *New trend in higher education*

For the sake of developing education systems in Saudi Arabia, the Ministry of Higher Education has established the National Plan for Information Technology that encourages e-learning and distance education in higher education. In 2006, the National Plan for Information Technology established a national centre called the National E-learning and Distance Learning Centre (NELC). The NELC provides technical support, tools, and the means necessary for development of digital educational content in higher education throughout the country, and is a vehicle by which all university sectors can become standardised. Due to the huge population explosion and few qualified faculty members, the National Centre for E-Learning has started several projects that aim to enhance e-learning in Saudi universities (NELC n.d.). The NELC strives to provide rich multimedia resources to enable faculty members to integrate blended learning that fits their course and university needs.

The NELC has established a learning management system called 'Jusur' promoting materials for introductory undergraduate courses. The College of Application Studies at King Saud University started employing 'Jusur' in fall 2007 in a blended learning application. The students have been required to use the system to download and submit homework, and to participate via the discussion board of each course. There have been not any pilot studies prior to this first application of blended learning in Saudi public universities. It is expected that the use of blended learning for teaching and training will continue to grow in the coming years. In addition, it is notable that asynchronous online elements will be utilised due to Internet bandwidth limitation.

### *Previous research in Saudi Arabia*

With the rapid evolution of IT in education in Saudi Arabia, many studies have been conducted to investigate the effect of online learning and the Internet on education, and more specifically on students. However, studies on blended learning in Saudi Arabia are still very scarce and all except one study investigated integrating face-to-face learning with online learning as a supplementary resource.

Sait et al. (2003) conducted a study about the use and effect of Internet on instructors and students in Saudi Arabia and found that most instructors realise the potential of the Internet for education and understand the effort involved in effectively utilising this valuable resource. The results of the study asserted that training programmes would be essential. The majority of instructors believed that the Internet resources had helped improve curricula and teaching methods. In addition, they urged for new technological methods to be supplemental to traditional classroom teaching and not as a replacement.

The effect of blended learning on students' computer and mathematics attitudes in a Saudi Arabian university was investigated by Yushau (2006). Two modes of learning implemented during the experiment were face-to-face learning, three times a week, and online learning consisting of a weekly computer laboratory session with availability of online learning resources in the intranet and Internet to the students. The results indicated that the students have positive attitudes towards mathematics and computer.

Moreover, Al-Jarf (2005) conducted a study in a Saudi Arabian university to find out whether or not integration of online learning with face-to-face grammar instruction significantly improves English-as-a-foreign-language freshman college students' achievements and attitudes. The study concluded that in learning environments where

technology is unavailable to English-as-a-foreign-language students and instructors, use of an online course from home as a supplement to in-class techniques helps motivate and enhance English-as-a-foreign-language students' learning and mastery of English grammar.

It is noteworthy that all of the examples in the Saudi Arabian studies have used asynchronous interaction due to the limitation in the bandwidth in the country. Supporting this view, Al-Dawalij Manager (Saudi Educational Software Producing Company) said that his company had stopped producing online educational materials for schools because of the network connection problems that prevented schools from accessing the material. Thus, their product range is only available on CD-ROMs and DVDs (Abu Hassana and Woodcock 2006).

However, asymmetric digital subscriber line (ADSL) connection has recently become available to homes and businesses in major metropolitan areas in Saudi Arabia, including all universities. This technology, which allows existing telephone lines to be used simultaneously for voice communication and as high-speed Internet access paths, is not yet available in all residential areas. This will affect the selection of tools for the delivery of online instruction, in the short term.

### **Elements and design of blended learning**

In blended learning, the face-to-face portion is conducted in an instructor-led classroom while the online learning portion could be provided as synchronous or asynchronous. Online synchronous elements could be online chat, video-conferencing, and/or conference calls, and asynchronous elements could be online discussion boards, online tutorials, online self-assessments, electronic texts, and emails.

Lack of supporting technology could be a reason for adopting asynchronous elements instead of synchronous elements as is the case in this study. Asynchronous learning is self-paced, student-centred, and offers students learning materials that can be repeated at their convenience.

Blended learning designs differ according to the elements that are blended, the percentage of these elements in the course credit, and the objectives of the courses. According to Garrison and Kanuka (2004, 96), there is a shortage in blended learning designs that can be followed by instructors. They state that "[there] is considerable complexity in its implementation with the challenge of virtually limitless design possibilities and applicability to so many contexts".

As discussed in the rationale for blended learning, students prefer blended learning over online learning. In a study achieved about students and blended learning techniques, Reichlmayr (2005) points out that 72% of the students liked having part of the course online and part of it in the classroom (17% disagree, 11% neutral). Significantly, Danchack (2004) – who redesigned his traditional course to include online synchronous and asynchronous materials – stated that students did not appreciate the instructor's efforts in organising the materials because they expected a certain amount of instructor presence. This raises an issue regarding the percentage of blended elements in the course credit.

Ross and Gage (2006) state that differentiation in the learning process would not depend on if they blend, but rather how they blend. 'How to blend?' is a crucial question that has been considered by researchers to which there may be a vast number of possible answers. There are three categories of blended learning systems based on the primary objective of the blend:

- First, enabling blends by providing the same opportunity or learning experience but through a different mode where learners choose the option that meets their cost and time constraints.
- Second, enhancing the blend by adopting learning management systems to provide supplementary resources for courses that are mainly conducted face-to-face.
- Third, transforming blends by utilising technology-mediated approaches in teaching as a main instruction method combined with traditional learning (Graham 2006).

Moreover, the University of Phoenix offers courses called FlexNet where classes meet one-third of the time in a face-to-face format and two-thirds in an online format. As a result, the face-to-face class time was then transformed into an active discussion session rather than a lecture (Cottrell and Robison 2003). In Brigham Young University, students enrolled in Introductory Accounting watch online videos of live class lectures including explanations of difficult concepts. A different design has been implemented by Brigham Young University, where first-year English students are required to meet face-to-face once a week instead of three times a week. In this design, online modules provide writing instruction and teaching assistants use online and face-to-face contact to provide feedback and guidance on writing (Waddoups, Hatch, and Butterworth 2003).

Another study that has responded to the challenge of delivering tutorials to large classes with timely assessment and feedback had replaced class tutorials by web-based activities. Obviously, this design is especially useful to technical field-of-practice subjects that aim to teach specific problem-solving skills. The initial findings of the study have shown excellent student performance. However, Rodanski (2006) claims that it is still too early to draw any definitive conclusions and that their approach has to be validated in future research.

### **Challenges of blended learning**

This section uncovers challenges that Saudi universities may face when implementing blended learning. In general, these challenges can be grouped into three major categories: the culture and blended learning environments; finding the right design; and demand on time (Graham, Allen and Ure 2003). These three main challenges will be addressed individually below.

#### ***Culture and blended learning environments***

One major challenge to be considered in the implementation of blended learning in Saudi universities is the adaptation of this element in the traditional university culture. Specifically, the issues that are likely to arise are related to a measure of: the extension of comfort levels related to the use of technology in education; the level of students' self-discipline, organisational and managerial support; student responsiveness (Graham, Allen, and Ure 2003); and society norms and values. Sait et al. (2003) mention that some instructors are against new technological methods as a replacement for face-to-face instructions that revealed a type of instructor resistance that should be taken into consideration. Moreover, Saudi female faculty perceptions regarding the potential use of the Internet were investigated by Al-Kahtani, Ryan, and Jefferson

(2006) and revealed an interesting conflict of aspects based on age and academic discipline. Conservative elements of the society see the Internet as a danger to societal norms because of its unethical content, while faculty in science disciplines see it as a powerful tool for work enhancement. To overcome faculty negative perceptions of the potential of the Internet, Al-Kahtani, Ryan, and Jefferson's study developed a theory named Internet Technology Acceptance as a theoretical abstraction that has yet to be validated. Undoubtedly, faculty perceptions of the potential use of the Internet influence their attitudes towards blended learning.

Moreover, it may be challenging for Saudi universities to get students to adapt to the use of new learning strategies when they have been used to the traditional didactic, lecture-based classroom. Unlike a traditional approach, blended learning requires a high level of student discipline and responsiveness. A study that was conducted on freshman students argued that some students did not take online instruction seriously as it was not used by other instructors and students at the college (Al-Jarf 2005). Certainly, taking online instruction seriously also requires students to have an adequate level of self-discipline. It may be that applying blended learning programmes to senior undergraduate classes, as a first stage of the blended learning implementation, would help to ensure appropriate levels of student discipline and responsiveness. Some first-year students might need appropriate skills training to achieve success in blended courses.

Moreover, the course instructor may have difficulty in adopting the new learning strategy. This constraint may be overcome by providing orientation and training programmes for faculties. The benefits of blended learning – such as increased learner satisfaction, understanding of materials, reduced training time and the ability to easily update training materials – are powerful reasons for employing blended learning for faculty training programmes. Professional development that teaches instructors strategies of online teaching is also important.

The technical skill level of students and instructors may be a key challenge to implementing blended learning. Because Saudi students have not experienced online learning, a number of students may struggle with acquiring the crucial skills to function well in a blended learning environment. In addition, Sait et al. (2003) reported that instructors with limited skills in Internet usage were hesitant in using any technology in their teaching. In order to address this issue, extensive tutorials, support services, and a helpdesk are a sought for both students and instructors. Institutional support is a way of encouraging faculties to adopt blended learning. The instructors' confidence in using new technology is an important factor influencing the delivery approach, which is equally important to finding the right blend.

### *Finding the right design*

The flexibility of blended learning addresses varying design needs, and is both a strength and a challenge. For a programme to be blended in design, not just delivery, blended learning requires an intentional approach to instructional design. If there were established design frameworks that could be used as guidelines, it would greatly simplify the task of implementing blended learning. In addition, producing effective and interactive digital contents is another critical issue that challenges instructors of blended courses. The NELC has started to create a digital repository that will contain various educational contents such as 'Learning Objects', and lectures notes that could be uploaded, modified by faculties and retrieved by students (NELC n.d.). This



project was launched in April 2009 but it cannot be predicted if and how instructors will use these resources.

The decisions made in the design process are critical to the effect the course will have on the learner. However, with such a wide variety of delivery mediums, choosing the best combination of technology is a daunting task for many instructors. In addition, the instructors who aim to implement blended courses may not have enough knowledge about how to ensure their effectiveness and there is a lack of a specific instructional design framework to be used for all curricula. Therefore, it is recommended that the NELC provides a series of easy to use curriculum design ideas for instructors. In addition, the vast new activity resource combination of online and face-to-face learning should be considered within the overall design of the curriculum (Huang and Zhou 2006).

As shown in the design section above, an issue regarding the percentage of blended elements in the course credit is examined because students expect a certain amount of instructor presence (Danchak 2004). Therefore, it is recommended that blended learning programmes require only 25–50% of the course credit to originate from web-based instruction. This percentage is stipulated in order to retain the advantages of face-to-face instruction. In addition, bandwidth access is a challenge that can be overcome by making required online materials asynchronous instead of synchronous. Also, computer laboratories must be available because some students may not have computers or Internet access at home.

#### ***Demand on time***

The time required by instructors who implement blended courses will increase because they must develop digital content and moderate online learning. Transforming traditional courses into blended courses will require more instructor time than developing traditional courses because of the necessity of redesigning the course. Moreover, instructors and students typically incur an increase in the time they spend on learning new techniques and skills, and on interacting with each other in blended learning environments. Instructors will have to adjust their schedules to accommodate more frequent interaction with students who generally expect more frequent feedback in online environments than in face-to-face environments (Graham, Allen, and Ure 2003).

Saudi universities have given high consideration to the development of faculty skills. For example, King Saud University has recently established a Deanship of Skills Development that aims to implement the necessary development programmes to improve the skills of the university staff and support faculty in making use of the latest technology and instructional techniques. However, workshops that consider time management relating to blended learning teaching are highly recommended in order to maximise effectiveness and manage time. Universities should provide time-management resources and orientation sessions to outline time-management strategies for both instructors and students in order to overcome this issue.

#### **Conclusions**

Adopting blended learning in Saudi higher education requires thorough exploration of successful stories of blended learning implementation to survey the challenges that have been encountered and to identify specific challenges related to the context.

Although the studies that were conducted in Saudi Arabia to investigate the effect of online learning and the Internet on education have demonstrated positive attitudes (Sait et al. 2003; Yushau 2006; Al-Jarf 2005), studies on blended learning are still very scarce due to the recent emergence of blended learning. Because the status of higher education in Saudi Arabia necessitates an urgent solution, it is recommended that the transition to a blended learning university environment is facilitated by providing the following: a thorough orientation for new students and instructors; student computers laboratories; instructor training programmes, and a series of easy to use curriculum design ideas for instructors. In addition, it is recommended to use feedback from students and instructors via regular course evaluations and other means to accurately inform university action plans.

This paper identifies a rich field for future research. Blended learning designs could be explored to develop instructional design frameworks that reflect Saudi culture. Further research could inform the faculty development programme for blended teaching based on faculty skills. Obviously, in-depth understanding of the challenges of implementing blended learning should be explored. Finally, although this investigation is specifically related to the implementation of blended learning in the universities of Saudi Arabia, we are confident that the assumptions and recommendations explored in this paper will be relevant to other populations facing similar challenges.

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## Online discussion in blended courses at Saudi Universities

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### Abstract

This paper reports on an investigation of the effectiveness of online discussion use in blended courses at Saudi Arabian Universities. The study presents issues that have to be considered before employing online discussion in blended courses. Using qualitative research, a rigorous data collection procedure was developed by employing multiple data collection methods that included observations, focus groups and in-depth interviews. The participants were female undergraduate students and instructors of different courses. The results highlight the issues to be considered in utilizing efficient online discussion, which are: e-pedagogy, e-plagiarism, infrastructure, Learning Management System tools, and demands on time.  
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*Keywords:* Online discussion; blended learning; e-pedagogy; higher education.

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### 1. Introduction

The evolution of learning processes in education has relied on incorporating new instructional strategies to improve pedagogy and increase flexibility. There has been considerable research into the use of online synchronous or asynchronous materials and activities in education. Several studies have been conducted to explore learning strategies that exploit the potential of online instruction while retaining the advantages of face-to-face instruction, from which emerges the concept of *Blended Learning*. Some universities promote blended learning to offer flexibility in the time and place of learning (Sharpe, 2006). Studies have overwhelmingly shown that blended learning can be used to improve pedagogy, increase cost-effectiveness, access and flexibility, and simplify revision (Graham, 2005; Osguthorpe & Graham, 2003).

Placing this study within a theoretical framework, we will join the participants of the 2005 Sloan-C Workshop on Blended Learning (Laster, Otte, Picciano & Sorg, 2005; Picciano, 2006), in adopting the following definition: a portion of face-to-face time is replaced by online activity in a planned, pedagogically valuable manner. The purpose of selecting this definition among the others stated in the literature is because it fits the circumstances of this study where reducing seat-time is a sought for solving the rapid growth of Saudi undergraduate students. This framework gives the study uniqueness because most of the previous studies in blended learning combine online and face-to-face

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instruction by providing online materials similar to the course contents or providing online materials as supplementary resources.

Asynchronous online discussion is one of the most widely used elements in blended courses and several studies have proved its effectiveness in enhancing participation and collaboration. This study is concerned with asynchronous rather than synchronous online discussions that require real-time online participation. Although there are relatively few studies that identify the effectiveness of online discussions in blended courses (Wu & Hiltz, 2004), there are no studies, as far as we can ascertain, that explore online discussions in Saudi blended learning, due to its recent emergence. This study endeavors to allow both the teacher and the learner's voice to come through to enhance the exploitation of this new learning strategy in Saudi higher education.

In the following sections we will demonstrate the rationale and elements for blended learning, the significance of online discussion, and the status of web-based education in Saudi higher education. Issues related to using effective online discussion in blended courses in Saudi Arabia are addressed. It is hoped that this study will help to provide insights for teachers and decision-makers throughout higher education in Saudi Arabia.

## **2. Online Discussion in Blended Courses**

Blended learning provides more guidance by integrating face-to-face learning with web-based learning, as well as adding flexibility and accessibility to traditional learning through online learning. The most common purpose of blended learning is the ability to combine the best of both worlds: traditional and online learning (Young, 2002; Graham, Allen & Ure, 2003; Kumar, 2007). According to DeLacey and Leonard (2002) and So and Brush (2008), integrating online sessions with traditional courses improve student interaction and satisfaction. Blended learning designs differ according to the elements that are blended, the percentage of these elements in the course credit, and the objectives of the courses. In blended learning, mostly the face-to-face portion is conducted in an instructor-led classroom, while the online learning portion could be provided as synchronous or asynchronous elements.

A significant tool of web-based instruction is online discussion, which is a discussion board where messages are posted online and participants can view messages and respond to them in asynchronous manner. Owston, Garrison and Cook (2006:339) assert the important role of interaction in quality learning stating that "interaction is the key element and quality standard of a quality learning experience in higher education". Utilizing online discussion in blended learning allows students to interact and collaborate with their peers at a distance to share and reflect on their knowledge.

Students who do not usually contribute during class have an opportunity to contribute confidentially using online discussion; posting questions and updating each other without the constraints of date and time. Salter *et al.* (2000) point out that online discussion provides "opportunities for collaborative learning and the development of communication skills." By collaboration, they mean "sharing experience", hence online discussion provides collaboration where students learn from the ideas and mistakes of others and share their experiences to create a rich knowledge resource. Moreover, Raleigh (2000) notes that online discussion improves critical thinking and increases confidence in peer working abilities because the student must compare, contrast, evaluate and analyze before contributing. Critical thinking, exercised in online discussions, gives students an opportunity to analyze their observations and provide reflective, thoughtful responses to posed questions and offer constructive feedback.

## **3. Context of the Study**

Education in Saudi public universities is based on the traditional didactic, lecture-based classroom with a few programs implementing web-based distance learning (MCIT, 2007; Ali, Sait, & Al-Tawil, 2003). For the sake of improving the quality of learning and access to higher education in Saudi Arabia, the Ministry of Higher Education has established the National Plan for Information Technology which encourages e-learning and distance education in higher education. In 2006, the National Plan for Information Technology established the National E-learning and Distance Learning Centre. This Centre provides technical support, tools, and the means necessary for the development of digital educational content in higher education throughout the country, and is a vehicle by which all university sectors can become standardized. In addition, it has established a Learning Management System (LMS) called 'Jusur' promoting materials for university courses.

In Fall 2007, King Saud University in Riyadh approved the implementation of e-learning courses in the College of Applied Studies and Community Services (CASCS) to overcome the rapid growth of students applying for college education. The e-learning courses in the CASCS are not totally online. The instruction in these courses is a combination of face-to-face instruction and (e-learning) online instruction replacing part of the face-to-face time, which can be called 'blended courses'. It is noteworthy that the CASCS is using the term e-learning courses instead of blended courses. The CASCS started employing the LMS 'Jusur' to offer online instructions.

Due to the recent emergence of blended learning in Saudi higher education, there is a gap in the literature on utilizing online discussions in blended courses. This paper aims to identify the issues that affect the quality of learning when utilizing online discussion in blended courses, based on students and instructors views. We hope that this study will provide insight for the faculties utilizing online discussions in blended courses.

#### **4. Methodology**

This study was informed by the interpretive paradigm that appears to be most appropriate to understand and interpret the perceptions of students and instructors towards a new learning environment. According to Radnor (2002:29), interpretive research "is trying to come to an understanding of the world of the research participants and what that world means to them". There is a focus on understanding people "without artificially contriving situations for research purposes" (Punch, 2009:117).

This research project will be informed by a combination of a constructivist and a social constructionist theoretical framework. The constructivist element will allow us to look at the nature of social reality and learning from the individual's perspective. Meaning-making activity in this framework is explained in terms of what the individual mind does and the unique experience of each of us (Burr, 2003; Crotty, 1998). Constructivists view people "as constructive agents and view the phenomenon of interest (meaning or knowledge) as built instead of passively received by people whose ways of knowing, seeing understanding, and valuing influence what is known seen, understood and valued" (Spivey, 1997:3). Social constructionism on the other hand, is the view that learning and meaning making are a social endeavor. Culture plays a major role in shaping our social realities and learning experiences, and the collective generation and transmission of meaning is at the focus of the researcher within this framework. Social constructionists see human experience as culturally and historically mediated through social practices that are constantly changing (Parker, 1998). Social constructionism theory is therefore adopted in this study due to the effect of the social and cultural context in constructing the instructor and student experiences. Religion and culture in Saudi Arabia not only shape people's attitudes, practices, and behaviours, but also shape the construction of their reality about their lives. Similarly, the social environment, in the case of online learning being integrated with face-to-face learning, is also exerting some influence on students' perceptions. This makes social constructivism theory appropriate for understanding the perception of instructors and students on blended learning in Saudi society.

The main research questions underpinning this study were:

1. What are the issues that affect Saudi student and instructor perceptions toward online discussion in undergraduate blended courses?
2. What are the critical issues that have an effect on the usefulness of online discussion in undergraduate blended courses?

The blended learning model utilized in this study integrates online instruction, which constitutes 70%, with face-to-face instruction, which constitutes 30%. Online discussion in this study was used as an obligatory assessed element of online instruction. There are other elements of blended learning utilized in this study but they are beyond the scope of this paper. In each blended course, students were asked to participate in about four threads initiated by the course instructor.

#### **5. Participants**

This study used a criteria-based or purposive sampling approach which is generally employed in qualitative research. Ritchie & Lewis remark that this approach is suitable for studies that involve sample units with particular features in order to enable detailed exploration of the central themes that will be studied (Ritchie & Lewis, 2003). They contend that it is essential to decide which criteria will be used for purposive selection of the sample: "The

choice of purposive selection criteria is influenced by a review of the aims of the study” (Ritchie & Lewis, 2003:97). The criterion I used was being a participant in a blended course.

Due to gender-segregated culture in Saudi Arabia, and the challenge of accepting large number of female undergraduate students, the blended courses were only offered to female students. As a female researcher, having only female participants facilitated data collection. The participants were instructors and undergraduate students from the College of Applied Studies and Community Services. They were nine female undergraduate students and three female instructors of different courses. The three instructors, who participated in a focus group and in-depth interviews, taught the following blended courses: 101ENG, 101ARB and 101SLM, which are required for most of the University colleges. The participating students were sophomores enrolled in more than one of the blended courses. Some of the students had enrolled in blended courses in the previous semester and were enrolled in one or two blended courses during the semester of the study.

## 6. Methods and data analysis

Qualitative methods were employed to collect rich descriptive data that contribute to the understanding of the phenomena that were studied. During Spring 2008, initial observations of online discussions, two students’ focus groups and one instructors’ focus group were made. The data was further investigated during nine in-depth interviews. In order to understand the research environment, two interviews with e-learning supervisors in the College were conducted. In-depth interviews were the main tool used in this study to provide an opportunity for detailed investigation of participants’ personal perspectives. The focus groups and the interviews were recorded and then transcribed. Thematic analysis approach was used for analyzing the data. Each transcript was read several times to generate themes related to the research questions. Participants were informed about the purpose of the research and that confidentiality and anonymity of personal information were to be maintained. In addition, they were informed that they had the right to withdraw from the study at any time. In addition, consents were obtained from them to use the data for research purposes.

## 7. Results and Discussions

For this paper we have selected four emerging themes which are: e-pedagogy, plagiarism, infrastructure and LMS tools, and demands on time. These themes are considered to have an effect on the quality of online discussion.

### 7.1. E-Pedagogy

This study shows that Saudi university instructors have limited pedagogical and technical experience in developing web-based teaching methods. This lack of experience is likely affect the quality of online discussions in blended learning programs negatively. One of the most important issues that have to be considered when implementing online discussion in blended learning is the strategies and methods of online instruction, which can be called e-pedagogy. Implementing blended courses requires integrating e-pedagogy with existing styles of teaching, which must take into consideration pedagogical and technological features to form an effective education. Supporting this view, Alonso, Lopez, Manrique and Vines (2005) noted that pedagogical problems with blended learning require more effort to be resolved. The participating students claimed that they did not expect their performance to be better in their blended course; they mentioned that the support through the online instruction was below their expectation. They stated that they did not experience effective online discussion because they did not receive the expected feedback. For example, one of the students said: ‘Every time I post a reply to the instructor’s question I expect a comment from her, but all I got is a ‘thankful’ reply from one or two of my friends who want to increase their number of posts in the forum to get a higher grade. Unfortunately, there is no real discussion in the forum’. This excerpt shows how frustrated the learner is when no instructor feedback is received. Students expect to have considerable responses from the tutor and were frustrated without it (Sweeney, O’Donoghue & Whitehead, 2004; So & Brush, 2008). In addition, the assessment criteria for student participation need to be based on quality not quantity as this will affect the value of the discussion.

Success transition to this new learning paradigm could not be achieved without instructors’ skills and experience in these areas. Students of today expect that web-based learning will enable them to be collaborators and creators

not recipients of information. It is obvious that online instruction provides powerful tools to support the shift to a student-centred learning environment. Cox, Webb, Abbot, Blakeley, Beauchamp and Rhodes (2003) and Hennessy, Deaney and Ruthven (2003) stress that instructors need to employ proactive and responsive strategies in order to support and guide learning; maintain a focus on the subject; monitor progress; and encourage reflection and analysis. Instructors need to consider the selection of learning materials, activities and learning objectives. In this study, one of the students criticized the topic of the discussion, as she said: 'The question that is posted by the instructor forces me to get the answer from the textbooks... which means that all of my peers do post the same answer and this result into duplication of posts by most of the students.' This excerpt highlights the importance of the topic choices. Vonderwell, Liang and Alderman (2007) assert the importance of good choices of discussion topics and how topic selection should not lead to repetition of the same answer in the discussion. These difficulties facing the students were probably because the instructors had not been introduced to online instructional practices, as they have mentioned. One of the instructors said: 'This semester is the first time I teach using blended learning... I have never taught via online instructions... In the beginning of the semester, I got a technical workshop about using the LMS 'Jusur'... but no pedagogical issues were mentioned... I am trying to learn the pedagogical issues from my colleagues' experiences who are brand new teachers in this area.'

Certainly, using effective pedagogy would affect student motivation and engagement. Student engagement could be understood as the time and effort that a student spends to perform learning activities either in class or out of class (Kuh, 2001). Therefore, instructors need to consider learning goals and outcomes as well as appropriate activities to facilitate student engagement. Oncu (2007) states that student engagement is affected positively by the instructional practices of student-centred approach. He also contends that active learning is reliant upon students being more actively involved in educationally purposeful activities, and the more they collaborate with their peers the more they become successful.

Online discussion is an opportunity for instructors to increase interaction, reflection and collaboration. To overcome the challenges of online teaching that most of university instructors meet, e-pedagogy workshops need to be offered to them. Salmon's (2000) five -stage framework is one of the guidelines that could be followed for efficient online discussion. These stages are used to design and run online activities that motivate and engage online students based on interaction among them. These five stages are: access and motivation, online socialization, information exchange, knowledge construction, and development. Each of these stages requires students and instructors to master particular skills.

## 7.2. Infrastructure and LMS Tools

To implement the blended learning program, technical infrastructure, including the computer laboratories in-campus, Internet availability in-campus and off-campus and technical support, is a condition for the success of the learning process. The LMS 'Jusur' has been a useful tool for online discussion but more features to facilitate learning and teaching are required. One of the participating instructors stated that the LMS should provide more features: 'I would like the LMS to offer me a tool to monitor student activities... the system does not have a feature that allows me to know who is online. I think that offering me a search tool or a report of each student's posts would facilitate my monitoring. Also, in some cases I found that a student has to be abandon from posting in the forum, but unfortunately I do not have this authority.'

Instructors were overloaded by the large number of students whose obligatory participation had to be answered in online discussions. Dealing with the assignments of this large number of students can be addressed by providing user-friendly features in the LMS, as the participants suggested.

Regarding the students, some of them claimed that they experienced problems using LMS to submit assignments or review online discussions. A participant mentioned that technical support was helpful for students who faced difficulty in using the LMS or had weak computer skills: 'I encountered a difficulty while trying to log in to my account and the technician in the helpdesk guided me to overcome it; that was due to my confusion of my university account password.'

Observing the online discussion indicates that it provides a useful virtual environment where students can interact with the instructor and post their queries or any complaints such as technical problems. In addition, the technicians informed students in the first class meeting that they can contact them via email for any technical queries. Undoubtedly, offering internet access for instructors is a must, as an instructor said: 'I do not have Internet access at



my office in the College so I need to postpone uploading assignments and monitoring online discussion until I go back home. Of course this put a heavy load over me; the College promised us to provide wireless network through our offices next semester.'

Moreover, participating students claimed that some of their friends do not have internet available at their homes so they cannot participate in the online discussion; therefore, providing Internet for students on campus via wireless network or computer labs opened all day is crucial.

### 7.3. E-Plagiarism

This theme has emerged from the online observation. It was noticed that plagiarism was visible in online discussions more frequent as 'cut & paste' is an easy action. Sutherland-Smith (2008:101) mentioned that some "researchers claim the Internet is a primary force pushing an increase in student plagiarism". Plagiarism is a serious ethical issue that has to be considered when implementing blended learning. Plagiarism means using others' words, ideas, graphs, or any creative expression without acknowledgment. Among the participants of the study, there is no real concern about plagiarism or its consequences. One instructor claimed that she could not recognize plagiarism as a result of the large number of students, while another instructor claimed that she just informed guilty students about their faults in this matter without any further action. At the same time all of them agreed that they may not take into consideration plagiarism in order to allow students to participate in the online discussion. One of the instructors said: 'I know that my students 'cut & paste' from the Internet without referring to the resources... but this is the way they can contribute to the discussion. Of course I think it is better that they mention the reference. I think this is not concerned in our learning.'

This finding conflict with studies conducted in Western countries that show the high concern about plagiarism among higher education instructors (Sutherland-Smith, 2008). Plagiarism is also a serious issue that is recognized in some Arab Universities among students and instructors who do not realize the consequences of plagiarism (Hamdan, 2006; Ebaid, 2005). Although technology has been employed to diagnose plagiarism in students' assignments thru search engines or anti-plagiarism software as 'Turnitin', there is no anti-plagiarism software that supports the Arabic language (AlZahrani & Salim, 2009).

Saudi undergraduate students have not been exposed to plagiarism policies and regulations as graduate students have; therefore they may not take into consideration the implications of plagiarism. Stover (2005) mentioned that plagiarism is diagnosed among undergraduate students more than graduate students because they do not differentiate the categorizations of "cheating" or "plagiarism". In order to address this issue, students should be educated and instructors need to consider pedagogical solutions to this problem. They also need to understand plagiarism policies embraced by universities and adhere to them. Supporting this view, a study investigating the views of students and instructors about plagiarism by Sutherland-Smith (2008:180) indicates that the "students' inability to explain their understandings of plagiarism in a manner that is consistent with their teachers and university policy is of concern". Adding to Sutherland-Smith that students need access to workshops or online modules to develop their academic writing skills in order to avoid plagiarism, two student participants stated that the lack of writing skills is a possible contributing factor to plagiarism: 'I do not have good writing skills so I search the Internet to find related paragraphs. I post it with a nice format adding colors and enlarging the fonts. I think the course instructor understands that and do not care, or may be she does not read my submission.'

Therefore, academic writing skills tutorials need to be offered and guidelines on how to avoid plagiarism have to be introduced to students. The plagiarism issue has to be discussed and addressed once e-learning and blended learning are adopted.

### 7.4. Demand on Time

Participating instructors in the pilot study stated that teaching blended courses required more time to supervise students' activities and provide feedback. Supporting this view, Graham *et al.* (2003) report that instructors will have to adjust their schedules to accommodate more frequent interaction with students because more frequent feedback in online environments is expected. Instructors might refuse teaching blended courses to avoid this demand on time. In this study, the supervisor of the program mentioned that the College has endeavored to encourage instructors to teach blended courses by offering them extra payments for each blended class they teach. One of the

instructors said: 'Facilitating learning thru online discussion is a new learning method that I can not handle efficiently with a large number of students in my class. I need many hours per day to monitor my students' posts, reply to their queries and evaluate their work.'

It is recommended that orientation sessions be provided for both instructors and students to outline online teaching and learning strategies in order to overcome this issue. Providing time-management tutorials for instructors would facilitate their online duties and decrease the required time of online moderating. In addition, limiting the number of students per blended course is sought to allow instructors to moderate the online instruction effectively. Another solution is to offer a tutor for blended courses to provide support for moderating the online discussion.

Regarding the students' concerns, none of the participating students complained about time consumed in online learning, although in other studies some students have expressed concern in regard to the time needed to effectively contribute to online discussions (Sweeney *et al.*, 2004). One of the students referred the shortage of time spent on online learning to the availability of information which is used unethically, she stated: 'I try to add many posts to the forum either by searching the Internet or modifying the posts that were posted by my peers and repost it again... I am sure that the instructor would not realize the duplication as she does not have enough time to read all of the students' posts.' Certainly, students require guidelines about learning ethics as well as studying skills to facilitate the transformation to blended learning.

## 8. Conclusion

Online discussion is one of the primary components of blended learning that can positively affect student learning when responding to peer questions, sharing new ideas, and receiving regular feedback from instructors. Therefore, effective use of online discussions would provide a sign of efficient blended learning. Several studies have proved the effectiveness of online discussion in enhancing participation and collaboration. However, this study shows that poor utilization of e-pedagogy was a significant obstacle. Utilizing asynchronous online discussion as an evaluated tool for students' participation requires more consideration as to its structure and moderating.

Providing infrastructure and web-based learning tools is not enough to move to a new learning approach. Many issues have to be considered before employing online discussions in blended courses. Universities that have never provided online instruction should effectively prepare their instructors and students to be engaged in online activities. In order to ensure the efficiency of online discussion in blended courses, the following steps are recommended: providing instructional practice training for instructors, providing user-friendly LMS features, highlighting the importance of avoiding plagiarism, and providing time-management orientation, resources, and strategies for instructors and students. Finally, it is recommended that feedback from students and instructors via regular course evaluations and other means is used to accurately inform the development of online discussion strategies in blended courses. Future research is needed about the criteria of assessment, the structure of online discussion and whether online discussion is recommended as an off-campus communication tool without assessment or an assessed element.

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