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Undergraduate Learners' Perceptions of Blended Learning and its Relationship with Some Demographic and Experiential Variables at the Arab Open University- Bahrain Branch

A Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Distance Teaching and Training

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Dedication

This Thesis is dedicated

to my husband

without whose support and help

this study could not have been completed

to my mother, father, and sisters

for their encouragement and prayers

to my children, Ahmed and Nada

for their love, patience, and understanding

Abstract

This research focused on the undergraduate learners' perceptions of blended learning at the Arab Open University - Bahrain Branch (AOU-BH). It also focused on factors that influence learners' perceptions and examined the relationships between learners' perceptions and their particular demographic characteristics (age, gender, educational level, experience with the internet, and employment status). In addition, the interrelationships between the perception dimensions were examined. This research also aimed at investigating the relationship between learners' satisfaction and the perception dimensions. Learners' perception dimensions in this study were: the course interaction, the learner's autonomy provided in the course, the course structure, the quality of instructional methods, and the course interface. The course interaction dimension was composed of two sub-dimensions: learner-learner interaction and learner-instructor interaction. The course structure (CS) was also composed of two sub-dimensions the CS-content and CS-assessment.

The researcher developed an instrument to measure the perception dimensions and satisfaction with blended learning. The instrument was administered to a sample of 779 AOU-BH undergraduate learners. MANOVA, ANOVA, correlations, and multiple regressions were used to analyze the data. Findings indicated that the overall learners' perception of blended learning at the Arab Open University-Bahrain Branch was found to be positive. Age and gender were found to be insignificant factors in the learners' overall perception. Learners' educational level was found to be a significant factor for learner-learner interaction and course interface. The relationship between learners' experience with the internet and the

perception dimensions was found to be significant. Learners who had more experience with the internet expressed significantly higher positive perception of the blended learning program. The more internet experience the learner had, the more autonomy he/she could practice in a blended learning course.

When relationships between perception dimensions were examined it was found that: The relationships between learner-learner interaction and learner-instructor interaction, course structure sub-dimensions, and course interface, were insignificant. Significant relationships were found between learner-instructor interaction with course structure sub-dimensions, and with course interface. The relationships between course structure sub-dimensions and the course interface were significant. The relationships between learner autonomy with the interaction sub-dimensions and the course structure sub-dimensions were also found significant. The relationships between the quality of instructional methods and course structure sub-dimensions, interaction sub-dimensions, and course interface were significant.

The relationship between learners' satisfaction with most perception dimensions, namely: course structure sub-dimensions, quality of instructional methods, and interface was significant moderately positive. The relationship between learners' satisfaction and the interaction sub-dimensions was significant and weakly positive. The perception dimensions, when taken together, had a sizeable effect on satisfaction with blended learning. However, quality of instructional methods and interface were the most important dimensions for explaining learners' satisfaction with blended learning.

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Chapter 1
Introduction

The fast and rapid revolution in Computer and Internet Technologies has generated different practices in the field of education. The field of Distance Education was one of the largest gainers from this revolution. The use of computer networking for distance education got a big boost with the arrival of the World Wide Web (www).

The narrow practices in distance education field have widened because of this revolution and a new generation of distance education appeared (Moore & Kearsley, 2005). Dependence on paper-based material, delivered by traditional mail, as a communication tool, and using broadcasting and TV programs, as a delivery method, is substituted with a new generation of internet-based technologies that combine text, audio and video on a single communication platform. These technologies do not only assure the delivery of instruction, but also allow two-way communication between educators and learners on one side, and among learners themselves on the other side (Moore & Kearsley, 2005). This has encouraged more people to go for higher education and to complete their education (Chin, Chang, & Bauer, 2000).

Universities, nowadays, have large numbers of students that exceed their capacities. Students' demographic characteristics have changed. Many students need to work and study at the same time, many others live in remote areas (Tello, 2002). Technology is now used to respond to such challenges.

In addition, universities want to practice the use of technology in teaching as a way to improve the learning process. Universities want to benefit from the use of technology in a way that promotes and encourages educators to shift, in teaching, from a teacher-centric model to a learner-centric model (Taylor, 1995). In the late 1990's, different universities introduced a new practice of distance education that can achieve this, namely blended learning. This is a hybrid of traditional face-to-face and online learning so that instruction occurs both in the classroom and online. It offers some of the conveniences of fully online courses without the complete loss of face-to-face contact (Colis & Moonen, 2001).

Many universities that adopt the blended learning model use, as an instructional medium, a Learning Management System (LMS), which is usually a Web-based technology used to plan, implement, and assess a specific learning process. The ratio of face-to-face teaching in classrooms to online teaching, using LMS, differs among universities.

With the continual increase in the number of learners and the change in the type of learners from full-time to part-time in Arab States, blended learning is starting to become a viable means of instruction in some universities in the region. The use of the blended learning model is in line with accreditation rules set by Ministries of Higher Education in the Arab countries, which require a minimum of 25% face-to-face contact.

The Arab Open University (AOU), established in 2002, is a distance education university that adopts the blended learning model because of accreditation requirements (AOU website, 2006). The Bahrain Branch of the Arab Open University (AOU-BH), established in February 2003, is one of six AOU branches distributed in the Arab region. This branch uses an

LMS named Arab Campus E-learning System (ACES) that was developed in cooperation with one of the largest IT companies in Bahrain. The branch adopts a 25% face-to-face instruction (AOU-Bahrain Branch website, 2006).

The AOU adopts a quality assurance system as part of international accreditation requirements to measure both students' and faculty satisfaction. However, this system focuses on learners' and faculty members' satisfaction towards face-to-face sessions and the provided services. To the knowledge of the researcher, no studies were conducted in the AOU to measure learners' perceptions, attitudes, or satisfaction towards the blended learning in particular.

Learners' perception of blended learning is one of the research areas in distance education. It constitutes one of the most important indicators for evaluating the effectiveness of distance education (Simonson, Smaldino, Albright, & Zvacek, 2006). This construct has been used to indicate learners' intuitive judgments based on their personal experience with this learning model. In the context of evaluating distance education, the terms perception and attitude were used interchangeably without justifying using one term or the other. Some researchers who used the term perception focused on learners' attitudes or feelings towards distance learning in general (O'Malley & McCraw,1999; Jurczyk, 2004). However, most of the researchers who dealt with the construct of interest in the present research used the term 'learners' perception' (Huang, 2002; Koohang & Durante, 2003). In this research, the term perception was preferred over attitudes because the latter usually requires a longer experience to be developed.

The problem that this research addressed was to determine **the undergraduate learners' perceptions of blended learning at the Arab Open University-Bahrain Branch** (**AOU-BH)**. This study also focused on factors that influence learners' perceptions and examined the relationship between learners' perceptions and their particular demographic characteristics. The demographic characteristics that the study focused on were: age, gender, educational level, experience with the internet, and employment status.

The course interaction, course structure, interface, and learner's autonomy provided in the course were four dimensions of learner's perception in distance learning environment adopted from Moore's theory of transactional distance (Huang, 2002). The quality of instructional methods is the fifth dimension of learners' perception which was adopted from a study by Koohang and Durante (2003). In this research, perception was measured in terms of the above dimensions. In addition, the relationship between the dimensions was examined.

This research also aimed at determining learners' satisfaction with blended learning and the relationship between learner's satisfaction and perception dimensions of the blended learning environment.

1.1 Statement of the Problem

This research investigated the AOU-BH learners' perceptions of blended learning, a multidimensional construct that included five major dimensions: course interaction, course structure, learner's autonomy, quality of instructional methods and course interface. Two of these five dimensions were divided into sub-dimensions. The interaction dimension was sub-

divided into learner-instructor interaction and learner-learner interaction. The course structure (CS) dimension was sub-divided into CS-content and CS-assessment sub-dimensions. The research aimed at answering a number of questions which fell into two categories. The first category of questions was concerned with the learners' levels of perception of blended learning, and the relationships between their perception and some demographic and experiential characteristics. The second category included one question that dealt with the relationships among the dimensions of perception in addition to the relationship between these dimensions and learners' satisfaction with blended learning. More specifically, the research questions were:

1- What are learners' perceptions of blended learning at AOU-BH?

2- Is there a relationship between learners' age and their perception of blended learning at AOU-BH?

3- Is there a relationship between learners' gender and their perception of blended learning at AOU-BH?

4- Is there a relationship between learners' educational level and their perception of blended learning at AOU-BH?

5- Is there a relationship between learners' experience with the internet and their perception of blended learning at AOU-BH?

6- Is there a relationship between learners' employment status and their perception of blended learning at AOU-BH?

7- Are there any relationships between the dimensions of learners' perceptions (the interaction, the course structure, the learner's autonomy, the quality of instructional methods and the interface),

and do these dimensions have effect on learners' satisfaction with blended learning?

1.2 The Purpose of the Study

This study was concerned with assessing AOU-BH undergraduate learners' perceptions of blended learning. It was also concerned with the structure of relationships between these perceptions and learners' demographic and experiential characteristics.

The study was also aimed at investigating the interrelationships between learners' perception dimensions in addition to the relationship between these dimensions and learners' satisfaction with blended learning.

It tried to find out if the relationships between perception dimensions in blended learning environment were the same as the relationships that exist in distance education as proposed by Moore's theory of transactional distance.

The study also tests Moore's theory of transactional distance in a real context in this region. This may contribute to the enhancement of the practice of blended learning that many of the universities in the region are starting to adopt.

1.3 Justification for the Study

Blended learning is introduced in the Arab region without adequate studies that identify ways to maximize the potential of blended learning, to ensure the quality of instructional methods, or to make blended learning a trusted

way of instruction. More research that is based on theory is needed in the field of distance and blended learning.

Researching learners' perception is one of the most valuable ways to assess blended learning, since it can provide indicators about different aspects of the blended learning from the learners' point of view. The results may be used to improve the instructional design adopted in the development of different courses, and may point out certain areas in the current practices which can be adopted in similar situations (Calvin, 2005).

Such studies, although available, were conducted on societies that have different characteristics than societies in this region. Similar studies must, therefore, be conducted on populations from this region to better understand this newly introduced learning model and the ways to improve the learning experience when using such a model.

1.4 Term Definitions

Distance Education is a planned learning process that normally occurs in a different place from teaching and, as a result, requires special techniques of course design, special instructional techniques, special methods of communication by electronic and other technology, as well as special organizational and administrative arrangements (Moore & Kearsley, 2005, P.2).

Learning Management System (LMS) is a software application or Web-based technology used to plan, implement, and assess a specific learning process. Typically, a Learning Management System provides an instructor with a way to create and deliver content, monitor student participation, and

assess student performance. A Learning Management System may also provide learners with the ability to use interactive features such as threaded discussions, video conferencing, and discussion forums (BytePile website, 2006).

Blended Learning is a hybrid of traditional face-to-face and online learning so that instruction occurs both in the classroom and online, and where the online component becomes a natural extension of traditional classroom learning. Blended learning is thus a flexible approach to course design that supports the blending of different times and places for learning, offering some of the conveniences of fully online courses without the complete loss of face-to-face contact. The result is potentially a more robust educational experience than either traditional or fully online learning can offer (Colis & Moonen, 2001).

Transactional Distance is the gap of understanding and communication between teachers and learners caused by geographic distance that must be bridged through distinctive procedures in instructional design and the facilitation of instruction (Moore & Kearsley, 2005).

Course Interaction is defined as the two-way communication between a learner and the instructor and among learners that can take the form of asynchronous and/or synchronous conversation (Chen & Willits, 1998). In this research, course interaction is comprised of two sub-constructs namely learner-instructor interaction and learner-learner interaction.

Course Interface refers to specific technologies, platforms, applications, and course templates that learners must use to interact with course content, instructors, and classmates (Swan, 2004).

Course Structure refers to the course organization and course delivery within the Learning Management System (Moore & Kearsley, 2005). The course structure expresses the rigidity or flexibility of structuring elements used in the course design such as: learning objectives, teaching strategies, and evaluation methods so that it can be delivered through the various media of communication. It also describes the extent to which a course can accommodate or be responsive to the individual needs of each learner (Moore, 1997). In this research, course structure is comprised of two constructs, namely course structure content and course structure assessments.

The Quality of Instructional Methods: is the quality of instruction in terms of the extent to which the pedagogy for adult learning was considered (Koohang & Durante, 2003).

Learner's Autonomy is the extent to which, in the teaching/learning relationship, it is the learner rather than the teacher who determines the goals, the learning experiences, and the evaluation decisions of the learning program (Moore, 1997).

Learners' Perception: Learners' immediate or intuitive recognition or appreciation (Dictionary.com, 2007). The operational definition for learners' perception in this research is the learners' intuitive judgment based on their personal experience with this learning model. The learners' perception is a construct comprised of five dimensions: course interaction, learners' autonomy, course structure, course interface, and the quality of instructional methods.

Learners' Satisfaction is the feeling that a learner has when his/her needs have been met by the institution.

1.5 The Limitations

The results of this research can be generalized within the limitation of the undergraduate learners of the Bahrain Branch of the Arab Open University, within the first semester of the academic year 2006/2007.

Chapter 2
Review of the Literature

Chapter 2
Review of the Literature

2.1 Introduction

This chapter will study the theoretical foundations on which this research was based. Moreover, several related previous studies will be presented and discussed.

The chapter starts with an overview of distance education in general. A brief introduction to open and blended learning will be given. Moore's theory of transactional distance will be discussed, followed by major components and factors affecting blended learning.

2.2 Distance Education: An Overview

Distance education is defined as an institution-based, formal education where the learning group is separated and where interactive telecommunications systems are used to connect learners, resources, and instructors. This definition is widely accepted in the field of distance education (Simonson et al., 2006) since it clarifies four major characteristics of this type of education (Tello, 2002). These include:

1- The influences of educational organizations such as schools, colleges, universities, institutes, or training sectors in companies or corporation. This differentiates distance education from self-study.

2- The separation of teacher and learner in time, or place, or both. This physical separation during the majority of the instructional process causes a gap between the instructor and the learners.

3- The importance of using an educational medium that unites teachers and learners and carries course content. This medium has differed throughout distance education generations (Moore & Kearsley, 2005).

4- The provision of a two-way communication channel between instructors and learners. This means that instructors interact with their learners and provide them with feedback and resources to facilitate their learning.

If one or more of these characteristics are missing, then the result is something different than distance education.

Moore and Kearsley provided another definition for distance education that is also widely accepted. Moore and Kearsley (2005, P. 2) define distance education as:

> Planned learning that normally occurs in a different place from teaching and, as a result, requires special techniques of course design, special instructional techniques, and special methods of communication by electronic and other technology, as well as special organizational and administrative arrangements.

This definition identifies the characteristics of distance education from another perspective. These characteristics are:

1- Distance education is a planned not accidental learning and as it is a sort of formal education.

2- Communication in Distance education is done through various technologies.

3- Distance education requires special techniques of course design and instructional methods.

4- Distance education requires special organizational and administrative arrangements.

The main characteristic that we may focus on here is that Distance Education requires special techniques of course design and instructional methods. Simply, distance learners have different attributes and needs that require different designs and methods.

Different learning models started to appear along with distance education as a result of the advancements in education technologies. Open learning and blended learning are two examples of these models and will be discussed in the two coming sections.

2.3 Open Learning

Different forms of education evolved to suit different settings and learners' needs. Open learning, which started with the establishment of the UK Open University (UKOU) in 1969, is one form of education that evolved closely with distance education. UKOU is used as a model for distance learning universities in many countries (Moore & Kearsley, 2005; Roy, 2001). UKOU sticks to principles of open learning in its educational philosophy (Roy, 2001).

Tella (1998) stated that, when defining open learning, many researchers stress three things: openness, student-centeredness, and the fact that open learning is rather a philosophy or an attitude towards organizing the

teaching/learning process in a flexible manner. In her paper, Roy (2001) stated that Open learning refers to giving learners choices about:

- Medium or media, whether print, on-line, television or video;
- Place of study, whether at home, in the workplace or on campus;
- Pace of study, whether closely paced or unstructured;
- Support mechanisms, whether tutors, videoconferences or computer aided learning;
- Entry and exit points.

Maxwell (1995) defines open learning as "a student-centered approach to education that removes all barriers to access while providing a high degree of learner autonomy". He distinguished between distance education and open learning. Distance education refers to a mode of delivery with certain characteristics that distinguish it from the campus-based mode of learning, while open learning refers to a philosophy of education providing learners with as much choice and control as possible over content and learning strategies. A distance education institution could be open or closed. An open learning course could be offered on campus or at a distance.

Open access is another term that is usually used with open learning. However this term implies a lack of formal entry requirements, prerequisite credentials, and an entrance examination (Roy, 2001). Most open and distance universities do not provide a hundred percent open access in their distance education programs. For example, AOU-BH provides learners with choice and control over learning strategies while maintaining some restrictions in entry requirements.

2.4 Blended Learning

The term 'Blended learning' is being used with increased frequency in both academic and corporate circles.

Graham (2006) synthesized three most commonly mentioned definitions. These definitions are:

1- Blended learning is equivalent to combining instructional modalities.

2- Blended learning is equivalent to combining instructional methods.

3- Blended learning is equivalent to combining online and face-to-face instruction.

Graham (2006) asserted that defining blended learning in either of the first two ways waters down the definition and really does not get at the essence of what blended learning is and why the concept of blended learning is exciting to so many people. The third definition more accurately reflects the historical emergence of blended learning systems and is the foundation of the author's working definition. It reflects that blended learning is the combination of instruction from two historically separate models of teaching and learning: traditional face-to-face learning systems and distance learning systems. It also emphasizes the central role of computer-based technologies in blended learning.

There are many reasons why an instructor, trainer, or learner might pick blended learning over other learning options. Osguthorpe and Graham (as cited in Graham, 2006) identified six of those reasons, namely: pedagogical richness, access to knowledge, social interaction, personal agency, cost effectiveness, and ease of revision. For the institution to be engaged in blended learning there must be a concerted effort to enable the learner to take advantage of both face-to-face and distance learning. For the social interaction, Rovai and Jordan (2004) suggested that blended courses produce a stronger sense of community among learners than either traditional or fully online courses.

2.5 Distance Education in the Arab World

Planning for the adoption of distance education in the Arab world started back in 1979 when the (ALESCO) recommended that an Arab Open University be established (Jamlan,1995) to help any Arab citizens to continue their education regardless of any possible circumstances that could prevent them from doing this. Earlier, specifically in 1975, the idea of establishing Al-Quds Open University (QOU) started to appear. It found support from the UNISCO in 1980. The QOU started to develop its course materials in 1985 with distance learning in mind. In 1991, QOU started to accept students from different areas of Palestine. At that time, QOU relied heavily on printed, audio, and video materials. Later, QOU benefited from the Internet and the revolution in communication technologies and started to transfer to e-learning models. QOU follows a blended learning model that merges face-to-face sessions, in the QOU regional centers, with online communication (Al-Quds Open University website, 2007).

More than 50,000 learners, 57% females and 44% males, were studying at QOU in the second semester 2006/2007. The University graduated more than 14,000 students from different disciplines in the past 10 years. Unlike UKOU, which represents a model in providing open and distance education all over the world, QOU represents a model in providing open and distance education in regions suffering from conflicts, such as Palestine (Al-Quds Open University website, 2007).

The Arab Open University (AOU) forms another model in providing distance education in the Arab world. AOU learned alot from its partner, the UKOU, and from the pioneering expertise of the QOU. AOU was established on high standards that not only assured high quality instruction but also high quality procedures and processes. AOU benefited from the unity in culture, availability of resources, and similar life styles in establishing its philosophy and regulation in order to be implementable in any Arab country (Arab Open University website, 2006). As mentioned in the previous chapter, AOU, currently, has six branches distributed in the Arab region. More branches may be established in the future. AOU relies on both educational packages and online materials. It adopts a blended learning model that merges online communication with few face-to-face sessions.

The Syrian Virtual University (Syrian Virtual University website, 2005) and the Open University of Sudan (Open University of Sudan website, 2006) are also examples of institutes that provide distance education to students in remote areas. Both universities got support from their respective governments during establishment.

Furthermore, traditional universities in the Arab world started to rely heavily on Information and Communication Technologies (ICT) in higher education. Most universities adopted LMS's to mange the learning process and provide students with resources. Universities in the Arab world established E-learning centers that take the role of implementing best practices of ICT in higher education.

2.6 Theories of Distance Education: An Overview

Theory is important to the study of distance education because it directly impacts the practice in the field. The need for a theory base for distance education was unfulfilled in the 1970s (Simonson et al., 2006). The distance education context has, ever since, evolved toward greater complexity, particularly in relation to the variety, power, and flexibility of delivery systems. This evolving field needs theories that reflect these changes in order to provide guidelines for practice (Chen & Willits, 1998).

Keegan (as cited in Simonson et al., 2006) asserts the need for fostering theory development to serve as a basis for systematic study, to contribute to conceptual insights about the complexities of distance education, and to develop methods for enhancing the teaching-learning environment. Simonson et al. (2006) also stated that, recently, a great deal of attention has been paid to the concept of 'best practices'. The research in this area suffers from the same characteristics as other distance education research. It is largely anecdotal, lacks clear reference to theory, and does not use standardized measures to identify outcomes.

Chen and Willits (1998) argued that most previous researches have focused on either the descriptions of various programs or the evaluation of student

achievements and cost-benefit analysis to demonstrate the effectiveness of distance education systems. They argued that little consideration has been given to developing a theoretical basis for the field.

In their book, Moore and Kearsley (2005) stated that more research that is based on theory is needed in the fields of distance and online education. These researches have to explore beyond the level of short term program description and evaluation.

2.7 Theory of Transactional Distance (Moore's Theory)

The theory of transactional distance, which appeared in 1972, was the first attempt in English to define distance education and to articulate a theory (Moore, 1997). The word transaction that Moore used in his theory indicated, in psychology as defined by Boyd and Apps, "the interplay among the environment, the individuals, and the patterns of behaviors in a situation" (as cited in Moore & Kearsley, 2005, p. 223).

This theory tried to focus on the pedagogical concepts that describe the universe of learner-instructor relationships that exist when learners and instructors are separated by space, time, or both. Moore tried to focus on the effects of the geographic distance on teaching and learning, on communication and interaction, on course design and on the degree of self-directedness of the learner which we call the learner autonomy (Moore & Kearsley, 2005; Simonson et al., 2006; Moore, 1997). He proposed that these are crucial components affecting the success of teaching and learning at a distance (Huang, 2002).

With the geographic distance there is a psychological and communication space to be crossed, a space of potential misunderstanding between the inputs of instructor and those of the learner. It is this psychological and communication space that is termed the transactional distance (Moore, 1997).

The purpose of the theory of transactional distance was to summarize the different relationships and the strength of relationship among and between these variables that make up the transactional distance. Moore (1997) stated that it has been pointed out by Rumble that, in any educational program, even in face-to-face education that uses different teaching plans or methods than traditional teaching, there is some transactional distance. He also stated that transactional distance is a continuous rather than a discrete variable, a relative rather than an absolute term. This is because psychological and communications spaces between any one learner and that person's instructor are never exactly the same. He proposed that the extent of transactional distance in an educational program is a function of three sets of variables. These are not technological or communications variables, but they are variables in teaching, in learning, and their interaction. These clusters of variables are named by Moore as dialogue (interaction), structure, and autonomy.

Moore (1997) also pointed to the most important of the environmental factors, the one that usually gets most attention from persons both inside and outside distance education. This factor is the medium of communication or the delivery system that affects the success of teaching and learning at a distance.

In this research, the major components that affect teaching and learning at a distance and affect the transactional distance are adopted from those dimensions of the theory. In the coming section, we describe the effect of these dimensions on the transactional distance and review findings of empirical research.

2.8 Major Components Affecting Blended Learning

The major components that affect distance learning and teaching have been discussed by Moore (1997) in the theory of transactional distance.

In his theory, Moore proposed that structure, dialog (interaction), and learner autonomy combine to determine the level of the psychological distance the learners perceive in all learning situations (Moore & Kearsley, 2005). The course interface is an additional dimension that Moore considered in the interpretation of his theory. It is the fourth dimension that this study focused on.

In addition Moore (1997) discussed the importance of quality of instructional methods beside content presentation, learners support, arranging evaluation and assessment methods. He pointed out to the importance of developing higher order cognitive skills with associated attitudes and values in higher education.

As mentioned before, there is a transactional distance in any teaching situation that is different from traditional teaching. As a result of this, the major components affecting teaching and learning at a distance are proposed to be the same as the major components that affect teaching and learning at a blended learning environment. In this part of the research we

will focus on these major components and will cover some of the related research.

2.8.1 Interaction

The interaction, or what Moore named dialog, is the first component affecting teaching and learning at a distance. The interactions between teachers and learners occur when one gives instruction and the others respond (Moore, 1997). Moore (1997) preferred to use the term *dialog* as his interpretation is that dialog is an interaction or series of interactions having positive qualities that other interactions might not have. He described the dialogue as purposeful, constructive, and characterized by being valued by each party. The purpose of the interaction is to improve the understanding of the student.

Moore (1997) stated that dialogue is further influenced by teacher and learner personalities. Teacher and learners might or might not take advantage of this interactivity. Also, the dialog is influenced by content; the extent of dialogue between teachers and learners in some content areas and at some academic levels is higher than in others where similar media are used. Thus according to Moore (1997), one of the major determinants of the extent to which the transactional distance will be overcome is whether dialogue between learners and instructors is possible, and the extent to which it is achieved. Learner-learner interaction was a new dimension of distance education in the 1980's and was pointed out as a valuable resource of learning process.

Interaction with instructors includes the numerous ways in which instructors teach, guide, correct, and support their students. Interaction

among peers refers to interactions among learners which also can take many forms: Debate, collaboration, discussion, peer review, as well as informal and incidental learning among classmates. Each of these modes of interaction supports learning, and each can be uniquely enacted in online learning environments (Swan, 2003).

The learner-learner and learner-instructor interaction, in practice, function together with the course material, structure, and interface. Swan (2003) explained that interaction among learners is supported by instructor facilitation and support, and, because it centers on content, can be seen as a variety of that type of interaction. A useful way of thinking about the three forms of interaction is provided by Garrison, Anderson, and Archer (2000) in the 'community of inquiry' model of online learning (see: Figure (2-1). In this model, three associations work together to support learning online: Cognitive presence with the interaction with content, teaching presence with the interaction with instructors, and social presence with the interaction among learners.

The cognitive presence is the extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication, while the social presence is the ability of learners to project their personal characteristics into the community of inquiry, thereby presenting themselves as 'real people'. On the other hand, teaching presence is defined as the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educational worthwhile learning outcomes (Garrison et al, 2000).

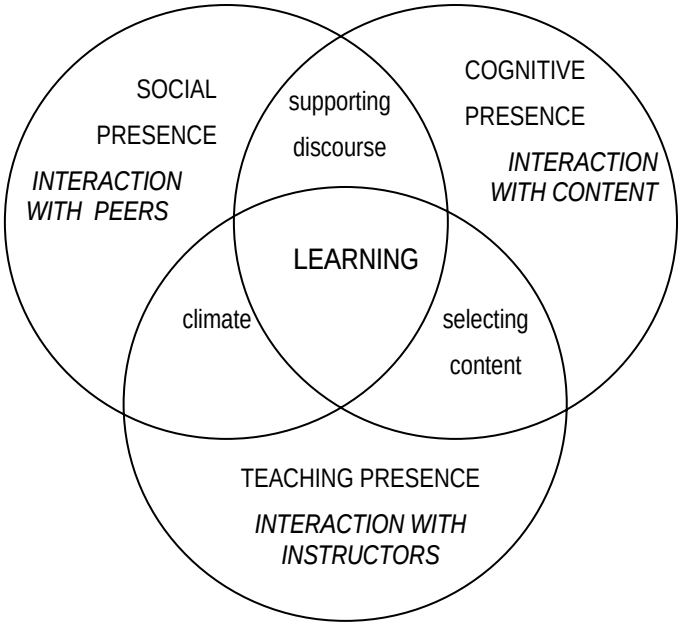

Figure (2-1)
Community of Inquiry Model of Online Learning

Source: (Garrison et al, 2000)

Many studies focused on the interaction dimensions in distance learning, and there is consensus among these studies that interaction with course content and with instructor and among learners are vital for success in distance learning (Moore, 1989; Huang, 2002; Tello, 2002). Tello (2002) examined the impact of interaction on student persistence, attitude and perception regarding the interaction and the online experience in 52 online courses that included seven hundred and sixty students. He found that student attitude towards the interaction, and the online-experience are positively correlated to the frequency of instructor to student interaction within a course and to the use of asynchronous methods of interaction within a course. Jung, Choi, Lim, and Leem (2002) found that the amount of active interaction with other learners influences learners' satisfaction with online learning environments.

In a study on 1000 students in Al-Quds Open University it was found that the students had a high level of satisfaction towards their interaction with instructor. However they expressed a preference for in class face-to-face interaction although they appreciated the value of the provided services that help them when needed (Matheos, Macdoland, McLean, Luterbach, Baidoun, & Nakashhian, 2007).

In her paper Learning Effectiveness Online: What the research tells us, Swan (2003) reviewed the literature on the learning effectiveness of asynchronous online environments and looked beyond the commonly accepted findings that suggested no significant differences in learning outcomes between online and traditional courses. She examined that literature in terms of forms of interactivity, a feature of online environments that might matter or be made to matter in learning. She reviewed current research concerned with online learning effectiveness in terms of learners' interactions with course content, with their instructors, and with their classmates. The following paragraphs, quoted from her study, summarize the researches about interaction that she reviewed:

- Swan et al. found significant correlations between perceived student learning and instructor feedback (interaction with instructors), between perceived student learning and communication with peers (interaction among classmates), and between students' perceived activity in courses (interaction with content) and their perceived learning.

- Richardson and Ting compared the perceptions of two groups of students involved in asynchronous learning. They found that students learning through written correspondence with

instructors were more concerned with instructor feedback than any other sort of interaction with their instructors, whereas students learning online felt that all interactions with instructors mattered.

– Ruberg, Moore, and Taylor found that computer-mediated communication encouraged experimentation, sharing of ideas, increased and more distributed participation, and collaborative thinking. However, they also found that for online discussion to be successful, it required a social environment that encouraged peer interaction facilitated by instructor structuring and support. Hawisher and Pemberton related the success of the online courses they reviewed to the value that instructors placed on discussion. In these courses, students were required to participate twice weekly and 15% of their grades were based on their contributions. Picciano, likewise, found that students' perceived learning from online courses was related to the amount of discussion actually taking place in them. Likewise, Jiang and Ting report correlations between perceived learning in online courses and the percent of course grades based on discussion, and between perceived learning and the specificity of instructors' discussion instructions.

– Similarly, Shea, Swan, Fredericksen, and Pickett's study of 268 online courses across the State University of New York system found significant differences in students' perceived learning among differing levels of perceived peer interaction. Students who rated their level of interaction with classmates as high also reported significantly higher levels of learning.

Moreover, Swan et al. found a strong correlation between students' perceptions of their interactions with peers and the actual frequency of interactions among students. They also found correlations between students' perceived interaction with peers and the percentage of course grades based on discussion, the required frequency of student participation in discussions, and the average length of discussion responses.

2.8.2 Course Structure

The second component that affects teaching and learning at a distant and determines transactional distance is the course structure. The course structure expresses the rigidity or flexibility of structuring elements used in the course design such as: learning objectives, teaching strategies, and evaluation methods so that it can be delivered through the various communications media. It also describes the extent to which a course can accommodate or be responsive to each learner's individual needs (Moore, 1997). As with interaction, the extent of structure in a course is determined largely by the nature of the communications media being employed, the philosophy and emotional characteristics of teachers, the personalities and other characteristics of learners, and the constraints imposed by educational institutions (Moore, 1997).

Swan (2004) suggests that online course developers and instructors have to provide:

1- Clear goals and expectations for learners.

2- Multiple representations of course content.

3- Frequent opportunities for active learning.

4- Frequent and constructive feedback.

5- Flexibility and choice in satisfying course objectives.

6- Instructor guidance and support.

Moore (1997) stated that some courses, such as recorded television courses, are described to be highly structured because there is no dialog in such courses on one hand, and there is no possibility of reorganizing the course to take into account inputs from learners on the other hand. There is little or no opportunity for deviation or variation according to the needs of a particular individual. This can be compared with many teleconference courses which permit a wide range of alternative responses by the instructor to students' questions and written submissions. These media permit more dialogue and require less structure (Moore, 1997). Moore (1997) stated that when a course is highly structured and learner-instructor dialogue is non-existent, the transaction between learners and teachers is high. At the other extreme, there is low transactional distance in those teleconference courses that have much dialogue and little predetermined structure.

Few studies have examined the learners' perception of course structure (Huang, 2002) and without explaining what structure is (Calvin, 2005). Swan (2003) reviewed the study of Swan, Shea, Fredericksen, Pickett, Pelz, and Maher that examined the relationships between course design factors and students' perceived learning in 73 different online courses and found significant correlations between the clarity, consistency, and simplicity of course designs and students' perceived learning.

In the study conducted at Al-Quds Open University, which was mentioned earlier, students expressed their satisfaction towards course structure, content and assessment (Matheos et al., 2007).

2.8.3 Learner Autonomy

The third component that affects teaching and learning at a distance and that is also part of the construct of the transactional distance is the degree of autonomy that learners are expected or permitted to exercise in the course. Moore (1997) defined learner autonomy as "the extent to which in the teaching/learning relationship it is the learner rather than the teacher who determines the goals, the learning experiences, and the evaluation decisions of the learning program". His interpretation of autonomy is that "learners have different capacities for making decisions regarding their own learning" (Moore & Kearsley, 2005).

The autonomous behavior and being self-directed is a nature of adults' learners according to Knowles theory (Moore, 1997). Knowles articulated that adult learners may be dependent because of what they learned in schools. In this case learners need to be reoriented to learning as adults. Moore proposed that the characteristics of the learners have an important effect on the transactional distance in any educational program.

According to Moore's propositions, high structure (i.e., low flexibility in the structure) and low dialogue would result in high transactional distance while low structure (i.e., high flexibility in the structure) and high dialogue would result in low transactional distance. The higher the transactional distance, the greater the autonomy required on the part of the learner to mediate the transactional distance. This increase in what Moore describes

as learner autonomy would enable learners to determine the level of course structure that best meets their individual needs (Moore & Kearsley, 2005).

In her study, Calvin (2005) argued that while there is some literature that examined Moore's proposed theory of transactional distance, very few studies have investigated both structure and autonomy (or self-regulation), and none have investigated how the two affect the satisfaction that adult learners would have with their perceived learning. Chen and Willits (1998) stated that few studies have also examined the construct of autonomy. Calvin (2005) also argued that the adult education literature uses autonomy and self-directed learning interchangeably.

Calvin (2005) summarized Chen and Willits study. She stated that their study used a factor analysis to determine the components of autonomy and it helped define the autonomy construct. However, their study did not measure the levels of autonomy of the participants in relation to how well they learned nor was the study conducted on a Web-based course. Also, their study did not point out the complexity of each of the constructs of Moore's proposed theory. In this respect, Calvin's study provided support for using a more complex measure for autonomy, such as the measure of self-regulated learning. The levels of autonomy of the participants were also not measured by Huang (2002). Neither Chen and Willits nor Huang examined how course structure might affect learner's ability to be autonomous in learning. As a result, very little is known about how autonomy functions within Moore's proposed theory, and how autonomy affects perceived knowledge gained in a Web-based course. On the other hand, in her study, Calvin (2005) found that there is a significant

relationship between learner's autonomy and satisfaction with perceived learning.

2.8.4 Course Interface

The fourth component that affects teaching and learning in a blended learning environment is the delivery media or the course interface. Although Moore (1997) did not use the course interface as a component of the constructs of his theory, he stated that the communication media are essential environmental factors that have to receive greater attention by researchers.

Researchers noted that new and emergent technologies had created a fourth type of interaction, learner-interface interaction, which they defined as the interaction that takes place between a student and the technology used to mediate a particular distance education process. Interface, thus, refers to specific technologies, platforms, applications, and course templates that students must use to interact with course content, instructors, and classmates (Swan, 2004). Recent research is making it very clear that interactions with interfaces significantly affect other interactions in online courses (Swan, 2004). It is becoming increasingly clear that interactions with interfaces significantly allow or constrain the quality and quantity of the other three interactions (Swan, 2003).

Swan (2004) stated that Kozma admitted the importance of instructional design, but argued that media mattered as well. All media, Kozma argued, particularly support specific kinds of instruction and are less supportive of others. Media permit and constrain different kinds of learning simply because they mediate instructional interactions. In online learning, the

primary vehicle of that mediation is the course interface. Swan (2004) research shows that interfaces matter. Indeed, most educational technologists today agree that instruction should be designed to take advantage of the unique characteristics of media that matter or that can be made to matter in teaching and learning (Swan, 2003)

So, the nature of the communications medium has a direct impact on the extent and quality of dialogue between instructors and learners. It should be apparent that this interactive nature of the medium of communication is a major determinant of dialogue in the teaching-learning environment. By manipulating the communications media, it is possible to increase dialogue between learners and their teachers, and thus reduce the transactional distance (Moore, 1997).

In the Al-Quds Open University study, 80% of the students were satisfied with the course interface (Matheos et al., 2007). In another study conducted on students from 24 WebCT based courses from different specializations in the American University in Beirut, students, also, showed a high level of satisfaction towards the course interface. However, they expressed their annoyance from WebCT disconnections and system slowness especially when accessed outside the campus (Silva, 2005).

2.8.5 The Quality of Instructional Methods

The last dimension of the learners' perception is the quality of instructional methods. Although Moore (1997) pointed to the importance of the quality of instructional methods and the importance of the development of higher order cognitive skills with associated attitudes and values in higher education, this is not part of the construct of his theory. This dimension is

considered in this study in addition to the factors identified by Moore to examine if blended learning in the AOU-BH promotes learning among learners and meets the specific learning needs of adult learning. As mentioned before, this dimension is adopted from Koohang and Durante (2003). Also, this study aimed at investigating if this dimension is related to other dimensions of the theory.

Clark was particularly concerned with several studies of computer-assisted instruction (CAI) that compared it with traditional instruction (in: Swan, 2003). He found that students at a variety of levels learned more and faster from CAI. Clark argued that media do not make a difference in learning but that instruction does. He also argued that these and other findings of significant differences between technology-based and traditional interventions resulted from more rigorously designed instruction, not from media effects. Media, he maintained, were like trucks, they were no more than delivery vehicles (Swan, 2003).

What mattered, according to Clark, was the quality of instruction, not how it was delivered. It is important to note, however, that the CAI he studied was rigorously designed according to principles of instructional design, while the traditional instruction with which it was compared was not. Thus, Clark argued that media effects were just a fantasy because if instruction was held constant there would be no significant learning differences between technology-based and traditional education (Swan, 2003).

Early researchers of distance education picked up on Clark's ideas to support their cause. Well-designed instruction, they argued, was well designed instruction, regardless of how it was delivered. Thus, they asserted, as long as the quality of instruction delivered over distance was as

good as the quality of traditional education, there would be no significant differences in learning between them (Swan, 2003).

Learning theory suggests that learning is promoted or enhanced: (1) when students are actively involved in learning, (2) when assignments reflect real-life contexts and experiences, and (3) when critical thinking or deep learning is promoted through applied and reflective activities (Smart & Cappel, 2006).

Numerous studies have demonstrated that a student's active involvement in the learning process enhances learning. This is a process often referred to as active learning (Smart & Cappel, 2006). Bonwell and Eisen (1991) defined active learning as instructional activities involving students in doing things and thinking about what they are doing.

In addition to active involvement, students better understand and apply material when problems and situations are set in the context of real-world issues and situations (Smart & Cappel, 2006). Authentic situations and scenarios can provide a stimulus for learning, creating greater student motivation and excitement for learning, representing and simulating real-world problems and contexts, and providing an important structure for student thinking (Smart & Cappel, 2006). Technology and online instruction can facilitate learning by providing real-life contexts to engage learners in solving complex problems (Smart & Cappel, 2006).

The use of real- world situations has the potential to promote deep learning through the development of critical thinking skills. Critical thinking involves the active and skillful analysis, synthesis, and application of information to unique situations (Smart & Cappel, 2006). Learning

retention and performance improves as students are required to apply what they have learned and then reflect upon the learning (Smart & Cappel, 2006). Again, online instruction has the potential to provide opportunities to promote reflective thought and deep learning through realistically integrating and applying the principles learned.

2.9 Factors that Influence Learners' Perception of Blended Learning

This study gives attention to the relationship between learners' perception and certain demographic and experiential variables (Age, Gender, Educational level, Internet experience, and Employment status).

2.9.1 Age & Gender

Koohang and Durante (2003) found that learners from different age and gender equally perceived that the web-based distance learning activity portion of their blended program promoted learning. Meyer (2003), interestingly, found that gender differences appear in online exchanges just as they would in regular situations. Males were more likely to control online discussions, post more questions, express more certainty in their opinions and were more concrete. Whereas females were more empathetic, polite and agreeable. The females also supplied the niceties that maintain relationships such as 'please' and 'thank you'. This finding may only indicate that we take our normal personalities, judgments and beliefs about others into the online setting. In other words, we are consistent in our online interactions, despite expressing ourselves in a different form.

2.9.2 Educational Level

In this study, this demographic variable reflects the number of credit hours completed by the student. To the knowledge of the researcher, previous studies did not examine the relationship between educational level and perception.

2.9.3 Internet Experience

Koohang and Durante (2003) found that experience with the internet has a significant effect on learners' perception. In a study that included 106 undergraduate learners, learners who had more experience with the internet indicated significantly higher positive perception of the blended learning program.

Koohang and Weiss (2003) found in another study that was conducted with 89 graduate students in a blended learning environment, also, that prior experience with the internet was a significant factor for courseware usability and Web-based instructional design. It is also found that learners who experience a distance-learning situation for the first time may indicate to the teacher a discomfort with the learning situation (Simonson et al., 2006). This discomfort gradually disappears, and later those students show preference to online courses rather than coming to the campus to take courses (Simonson et al., 2006).

2.9.4 Employment Status

Wagner, Werner and Schramm (2002) studied students' perception of online courses and found that there is a significant relationship between student employment status and their perception of online courses. Full-time

employed learners would normally recommend the online course to others. They also found that the relationship between employment status and perception of the effectiveness of the delivery method was nearly significant. They attributed this relationship to the flexibility that the online education provides for employed students. It is found that employed students perceived online interaction with instructors insignificantly but higher than unemployed. The perception of employed students for online communication with other learners was significantly higher than unemployed students.

Chapter 3
Methodology

Chapter 3
Methodology

3.1 Introduction

This chapter discusses the research methods used in the study, the research variables and their classification, the population and sample of the study, the instrumentation used for the research and its validation and reliability controls. The chapter ends with an explanation of the procedures used for data collection and analysis.

3.2 Research Methods

A mixture of research methods was used in this study. First, this was a survey study that provided information about the perception of and the level of satisfaction of AOU-BH learners with blended learning. Second, it was a causal comparative study that investigated relationships between demographic and experiential variables and learners' perception. There was a concern about whether or not perceptions are related to the demographic and experiential characteristics. Finally, it was a correlational study that investigated relationships among the perception dimensions, and the effects of these dimensions on satisfaction with blended learning.

3.3 Research Variables

As mentioned above, a mixture of research methods was used in this study. Accordingly, variables in this study varied in being dependent or independent.

When describing perception dimensions and sub-dimensions: course interaction (learner-instructor interaction, learner-learner interaction), autonomy, course structure CS (CS-content, CS-assessment), quality of instructional methods, and course interface, variables were not classified as being dependent or independent. Perceptions are continuous variables in this study.

Learners' perceptions, and perception dimensions, when related to demographics and experiential variables, were classified as dependent variables. At the same time, the independent variables were learners' age (numerical), gender (categorical: Male, Female), educational level (categorical: Year one learners, Learners after year one), learners' experience with the internet (categorical: Two years or less, Three to five years, More than five years), and learners' employment status (categorical: Employed, Unemployed). These data were gathered using a basic data form that was enclosed with research instrument as the first section (Appendix1).

Learners' Satisfaction was considered to be the dependent variable when related to perceptions as independent variables.

When investigating the relationships among perception dimensions, no dependent or independent classification of variables was considered.

The learners' perception and satisfaction with blended learning were measured using the perception and satisfaction questionnaires. These were a Likert-type instruments adopted from different instruments used in previous studies (section 3.5 explains these instruments in more detail).

3.4 Population and Sample

The participants of this study were selected randomly from the target population, that is: the undergraduate learners of the AOU-BH in the first semester of the academic year 2006/2007.

The AOU-BH is one of AOU's six branches. It was established, as stated before, in the second semester of the academic year 2002/2003. The branch runs different undergraduate and postgraduate programs. The focus of this research was on undergraduate learners.

Undergraduate programs at AOU-BH are Business Administration-Systems (BAS), Information Technologies & Computing (ITC), and English Language Literature (ELL). Admission to all programs, except (ELL) which was terminated two years ago, takes place three times a year: Admission for the first semester, for the second semester, and for the summer course. Admitted students have to do an English placement test. Students that do not pass this exam are registered as Orientation students (ORN) until they pass a compulsory face-to-face course within one semester that needs full attendance at the university.

Table (3-1) shows the number of students at AOU-BH undergraduate programs according to gender in the first semester 2006/2007. It also shows that BAS and ITC students form 83% of undergraduate students at AOU-BH. 15% are Orientation students, and 1% are ELL students.

Table (3-1) Number of Students at AOU-BH Undergraduate Programs According to Gender / First semester 2006/2007				
Program	Gender		Total	%
	Male	Female		
BAS	433	296	729	42%
ITC	481	234	715	41%
ORN	199	70	269	15%
ELL	7	17	24	1%
Total	1120	617	1737	100%

The AOU-BH system depends on credit hours. Students have to complete a minimum of 128 credits as graduation requirements. First year students (Level-1 students) start with compulsory general courses that include Arabic, English, Study skills, and computer skills courses. From the second year, students start their respective program required courses (96 credits). Students also have to complete 14 elective credits. To complete one educational level, a student has to finish 32 credit hours. Table (3-2) shows the number of students in each educational level according to major and gender.

Level-1 students form 69.5% of AOU-BH students. 22.2 percent of the first level students are orientation students. Orientation students were excluded from the study because they study this course using the traditional mode (i.e. face-to-face) as stated before. ELL students form a minority at AOU-BH (1%) and they are treated as a special group until all students in this group graduate. Because of that, those students were also excluded from this study.

Table (3-2)
Number of Students in Each Educational Level of AOU-BH According to Major and Gender / First semester 2006/2007

Level	Program	Gender		Total
		Male	Female	
Level-1	BAS	295	208	503
	ITC	320	116	436
	ORN	199	70	269
	Total	814	394	1208
Level-2	BAS	85	64	149
	ITC	94	69	163
	ELL	4	10	14
	Total	183	143	326
Level-3	BAS	32	17	49
	ITC	57	43	100
	ELL	3	7	10
	Total	92	67	159
Level-4	BAS	21	7	28
	ITC	10	6	16
	Total	31	13	44
Grand Total		1120	617	1737

This research focused on ITC and BAS students. Table (3-3) shows the number and percentages of AOU-BH students in these programs.

Table (3-3)
Number and Percentages of AOU-BH Students in Each Educational Level of BAS and ITC Programs According to Major and Gender / First semester 2006/2007

Level	Program	Gender		Total	Gender		Total
		Male	Female		Male	Female	
Level-1	BAS	295	208	503	59%	41%	54%
	ITC	320	116	436	73%	27%	36%
	Total	615	324	939	65%	35%	65%
Level-2	BAS	85	64	149	57%	43%	48%
	ITC	94	69	163	58%	42%	52%
	Total	179	133	312	57%	43%	22%
Level-3	BAS	32	17	49	65%	35%	33%
	ITC	57	43	100	57%	43%	67%
	Total	89	60	149	60%	40%	10%
Level-4	BAS	21	7	28	75%	25%	64%
	ITC	10	6	16	63%	38%	36%
	Total	31	13	44	70%	30%	3%
Grand Total		914	530	1444	63%	37%	100%

The type of sample used in this research was a cluster random sample. The researcher, in the planning phase, was aiming at using a stratified sample for precise results. However, insufficient information that assures a representative stratified sample, in addition to the difficulties of implementing the questionnaire by meeting each individual student (AOU-BH students attend weekly or once every two weeks for face-to-face sessions) were problems that prevented using this type of sampling, and lead the researcher to use a different sampling technique. Cluster sampling is the next best and an easier random sampling technique (Fraenkel & Wallen, 2006). It is easier in terms of implementation time, it assures responses, and it assures that responses are based on certain situations as it is required that the student keep a certain course in mind while using the instrument. Sections of courses formed the clusters of the population. The accessible population, as a result of using cluster sampling, was all AOU-BH students in the sections of ITC and BAS courses.

There were 28 courses with a total of 193 ITC and BAS sections running in the first semester 2006/2007 at AOU-BH (excluding ELL and Orientation courses as mentioned above). The mean size of the sections was 21 students. Eight sections were excluded from the accessible population because they represented extreme size cases. These were 7 sections with level-4 students that had less than 10 students each, and one section with a large number of students. The remaining 185 sections, which were approximately similar in size, formed the clusters. Table (3-4) shows a statistic of AOU-BH sections according to educational levels.

Table (3-4) Number and Percentage of AOU-BH Sections According to Educational Levels/ First semester 2006/2007		
Level	Frequency	Percent
1	111	60%
2	42	22.7%
3	22	11.9%
4	10	5.4%
Total	185	100%

The percentages of sections of courses of each educational level were close to the percentages of students in each level. The total percentages of male and female sections were also close to the percentages of male and females at AOU-BH. Some mixed sections (i.e. male-female sections) appeared clearly in level-4 sections for economical reasons. Table (3-5) shows the numbers and percentages of sections in each educational level of BAS, ITC and general courses (GR) according to courses type and gender.

The sample was selected randomly using Statistical Package for Social Sciences (SPSS). The list of AOU-BH sections was saved as an SPSS data file and an approximately 20% random sample was selected.

Table (3-5) Number and Percentages of Sections in Each Educational Level of BAS, ITC and General Courses / First Semester 2006/2007					
Course type	Level	Female (F)	Male (M)	M & F	Total
(BAS) Requirements	1	4	5	0	9
	2	3	4	0	7
	3	6	7	0	13
	4	0	0	4	4
	Total	13	16	4	33
General Requirements Compulsory & Elective courses (GR)	1	31	59	0	90
	2	3	4	1	8
	Total	34	63	1	98
(ITC) Requirements	1	4	8	0	12
	2	11	15	1	27
	3	4	5	0	9
	4	2	2	2	6
	Total	21	30	3	54
Grand Total		68	109	8	185

A total of 36 sections from different courses, different educational levels, and different genders were selected. Table (3-6) shows this:

Table (3-6)
Number and Percentages of Sections in Each Educational Level of BAS, ITC and General Courses in the Research Sample

level	Course type	Gender				Gender			
		Female	Male	Male & Female	Total	Female	Male	Male & Female	Total
1	BAS	1	1	0	2	50%	50%	0%	11%
	GR	3	12	0	15	20%	80%	0%	79%
	ITC	1	1	0	2	50%	50%	0%	11%
	Total	5	14	0	19	26%	74%	0%	53%
2	BAS	2	1	0	3	67%	33%	0%	30%
	GR	1	1	0	2	50%	50%	0%	20%
	ITC	1	4	0	5	20%	80%	0%	50%
	Total	4	6	0	10	40%	60%	0%	28%
3	BAS	2	1	0	3	67%	33%	0%	50%
	ITC	2	0	1	3	67%	0%	33%	50%
	Total	4	1	1	6	67%	17%	17%	17%
4	BAS	0	0	1	1	0%	0%	100%	100%
	Total	0	0	1	1	0%	0%	100%	3%
Grand Total		13	21	2	36	36%	58%	6%	100%

According to this sample, the researcher was aiming to implement the research on a total of 779 students.

3.5 Instrumentation

The research instrument was a questionnaire that was used to collect research data. It was designed for paper and pencil in-class completion.

The questionnaire started with an instruction cover page that summarized the purpose of the study and gave some directives on how it could be completed. The instrument contained three sections, section one, on page 1, was used to identify learners' demographic and experiential data such as age, educational level, gender, internet experience, and employment status as factors that may influence learners' perception and as the independent

variables of the study. It was also used to specify the course and the section of that course to ensure that the instrument was administered with different sections of different courses in different levels taught by different tutors. Parts two and three of the instrument will be described in the following sections.

3.5.1 Perception Questionnaire

This study measured learners' perception using a Likert-type instrument adopted from instruments used in previous studies (Walker, 2003; Koohang & Durante, 2003; Huang, 2002; Laanpere, 2005). The researcher used, modified, and translated some items used in these instruments, which were mainly used to measure perception of learners in distance, online and web-based learning contexts.

Since Walker's (2003) instrument (DELES) was copyrighted, permission from Walker was taken (Appendix 2). No copyright rules were mentioned for other instruments.

According to the last version of the instrument, the perception questionnaire, that is section two of the instrument, consisted of 58 items divided into five main components: course interaction, autonomy, course structure, quality of instructional methods, and course interface. Two of these five components were divided into sub-components. The interaction dimension was sub-divided into learner-instructor interaction (LI-interaction) and learner-learner interaction (LL-interaction). The course structure (CS) dimension was sub-divided into CS-content and CS-assessment sub-dimensions. As a result, the instrument consisted of a total of seven components.

Component one covered the learner-instructor interaction dimension and consisted of 8 items. Component two covered the learner-learner interaction dimension and consisted of six items. Component three covered the learner's autonomy dimension and consisted of 9 items. Component four consisted of 8 items and covered the content and design of the course. Component five consisted of 7 items and covered the assessments conducted in the course. Component six measured the learner's perceptions of the quality of instructional methods. It consisted of 10 items. Component seven covered the course interface. It also consisted of 10 items and measured the learners' perception of the course interface (ACES), which is the LMS used in the AOU-BH. Table (3-7) summarizes this.

Table (3-7)
Number of Items in the Dimensions of the Perception Questionnaire Section (with Dimension Names Abbreviated)

Dimension	Components	# Items	From	To	Abbreviation
Interaction	Learner-instructor	٨	١	٨	LI-interaction
	Learner-learner	6	٩	١٤	LL-interaction
Leaner autonomy	Leaner autonomy	٩	١٥	٢٣	Autonomy
Course structure	content	٨	٢٤	٣١	CS-content
	assessment	٧	٣٢	٣٨	CS-assessment
Quality of instructional methods	Quality of instructional methods	10	٣٩	٤٨	Quality
Course interface	Course interface	١٠	٤٩	٥٨	Interface

*** From this point on, abbreviations will be used instead of the full names of the dimensions.**

The perception questionnaire used two different item responses. One used (always, often, sometimes, rare, and never) for items 1 to 23, while the rest of items used (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree). Both response sets were converted to a mark from 5 (for always or strongly agree) to 1 (for never or strongly disagree).

The learner perception of each dimension was calculated by adding all dimension items' marks, while the learner total perception was calculated by adding all dimensions' marks.

A high score on the perception instrument indicated that the learner highly perceived blended learning components. A high score on any component of the instrument indicated high perception of the related dimension. A high score in learners' perception of the course structure, the interface, the course interaction, or the quality of instructional methods would indicate low degree of transactional distance.

3.5.2 Satisfaction Questionnaire

The learners' satisfaction with blended learning was measured using the satisfaction questionnaire. It was also a Likert scale adopted from Walker's (2003) instrument. According to the last version, the questionnaire, which formed section three of the instrument, consisted of 8 items (from item 59 to 66).

The satisfaction questionnaire used the (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree) responses. Learners' satisfaction was calculated by adding all items' marks. A high score on this instrument indicated that the learner was highly satisfied with blended learning. Scott Walker's questionnaire (2003) measured satisfaction with distance education; the researcher in this study modified the items to suit the blended learning context. For example, item 65 'Blended learning is stimulating' was 'Distance Education is stimulating' in Walkers' DELES instrument.

3.5.3 Questionnaire Development

To develop the instrument for this research, the researcher performed the following steps:

1- Reviewed the items of instruments used in previous studies (Walker, 2003; Koohang & Durante, 2003; Huang, 2002; Laanpere, 2005).

2- Reviewed the related literature used to develop instruments of these studies.

3- Defined perception dimensions and satisfaction according to the research problem and Moore's theory.

4- Selected items that were supposed to indicate learners' perception in these dimensions. Appendix 3 shows the source of each item in the instrument.

5- Rewrote items to suit AOU-BH context.

6- Translated items from English to Arabic Language.

Three versions of the questionnaire were developed throughout the research stages. The researcher was keen to use a reliable and valid instrument that could be used to achieve the goals of the study. The lack of blended learning instruments in general, and Arabic instruments in particular, in the field of distance education, was a problem that was overcome by developing an instrument using instruments from previous studies in the distance education field.

The first version was used to investigate the instrument validity. The investigation results helped in developing version two. Version two of the instrument was used to investigate the reliability of the instrument. The results helped in developing version three, which was used in the main study.

3.5.4 Investigating the Content Validity of the Instrument

The researcher investigated the content validity of the first version of the instrument (Appendix 4) prior to the pilot study. The first version of the instrument consisted of 5 major dimensions with a total of 8 components. Table (3-8) summarizes this:

Table (3-8)
Number of Items in the Dimensions of the Perception Questionnaire Section: Version 1

Dimension	Components	# Items	From	To
Interaction	LI-interaction	٨	١	٨
	LL-interaction	7	٩	١5
Leaner autonomy	Autonomy	٩	١6	٢4
Course structure	CS-content	9	٢5	٣٣
	CS-assessment	6	٣4	٣9
Quality	Authentic learning	5	40	44
	Active learning	12	45	56
Interface	Interface	٨	٥٧	٦٤
Learners satisfaction	Satisfaction	8	65	72

Content validity was determined by the agreement among experts in the field on:

1- The extent to which the instrument covered the whole domain of factors it was intended to address.

2- The appropriateness and relevance of each item as an indicator of its dimension.

3- The clarity of each item to the reader.

4- The format of the questionnaire.

Seven experts in the field (Appendix 5) were selected to validate the research instrument. Experts' acceptances to be part of the panel experts were secured. Then, a referee form (Appendix 3) was sent to them with a letter (Appendix 6) explaining the details of the questionnaire and what was required from them. Although all invited experts accepted to be part of the experts' panel, only three of them (Appendix 5) validated the questionnaire and provided valuable feedback. These experts provided feedback by filling the experts' evaluation sheets sent to them. They were asked to give marks from (1 to 5) to indicate relevance and clarity of items (5 indicated highest relevance and clarity while 1 indicated low relevance and clarity). All dimensions were clearly defined with each dimension sheet according to the theory. It took approximately eight weeks to get experts feedback. The researcher recorded experts' feedback in one sheet and made decisions to delete or modify items when there was agreement in feedback of at least two experts. Also, notes from the Arabic expert were considered in terms of clarity of translation.

The researcher modified the instrument according to the experts' feedback. Some items were deleted, while others were modified. There was a consensus among experts on the components of the questionnaire. They all agreed that all components were related to the study except the authentic learning sub-dimension of the quality of instructional methods. One of the experts said: 'There are some questions which, at face value, do not appear to have a great relevance to the research questions, e.g. those dealing with

authentic learning'. As a result, this sub-dimension was deleted and an item about authentic learning experience was added to the dimension.

A new version of the questionnaire (version 2) was developed according to experts' feedback (Appendix 7).

3.5.5 Reliability

The reliability of the instrument was examined through the use of the internal-consistency methods of estimating reliability from administrating the instrument (version 2) in a pilot study. Version two of the instrument consisted of 6 major dimensions with a total of 8 components. Table (3-9) summarizes this:

Table (3-9)
Number of Items in the Dimensions of the Perception Questionnaire Section: Version 2

Dimension	Components	# Items	From	To
Interaction	LI-interaction	٨	١	٨
	LL-interaction	6	٩	١٤
Leaner autonomy	Autonomy	٩	١٥	٢٣
Course structure	CS-content	٨	٢٤	٣٢
	CS-assessment	٧	٣٣	٣٩
Quality	Quality	10	٤٠	٤٩
Interface	Interface	١٠	٥٠	٥٩
Learners satisfaction	Satisfaction	8	60	67

The pilot study was administered at AOU-BH in the first semester 2006/2007 prior to the main study. A convenience sample of 60 learners taking 12 different courses in different levels and sections was selected. Table (3-10) shows the results of item analysis of the instrument dimensions. The analysis included the item mean, item standard deviation,

and corrected item discrimination. Correlation of the item and dimension total score was used as an item discrimination index.

Table (3-10)
Item Analysis of Instrument Dimensions

Dimension	Items	Mean	Std. Deviation	Discrimination
LI-interaction	Item 1	3.750	1.007	0.592
	Item 2	3.942	0.958	0.513
	Item 3	3.442	1.243	0.750
	Item 4	3.269	1.300	0.651
	Item 5	3.865	0.971	0.668
	Item 6	3.904	1.209	0.706
	Item 7	3.558	1.259	0.663
	Item 8	3.212	1.258	0.631
LL-interaction	Item 9	2.817	1.255	0.819
	Item 10	2.750	1.323	0.855
	Item 11	2.950	1.371	0.844
	Item 12	3.233	1.407	0.886
	Item 13	2.933	1.274	0.742
	Item 14	3.817	1.200	0.642
Autonomy	Item 15	4.466	0.599	0.289
	Item 16	4.448	0.705	0.653
	Item 17	4.155	0.894	0.647
	Item 18	4.345	0.785	0.718
	Item 19	4.397	0.771	0.678
	Item 20	4.052	0.867	0.554
	Item 21	3.759	0.885	0.291
	Item 22	3.828	1.126	0.339
	Item 23	4.379	0.745	0.473
CS-content	Item 24	4.035	0.886	0.335
	Item 25	3.386	1.098	0.565
	Item 26	3.175	1.269	0.661
	Item 27	3.281	1.192	0.796
	Item 28	3.070	1.294	0.817
	Item 29	3.421	1.253	0.702
	Item 30	3.298	1.322	0.748
	Item 31	3.526	1.255	0.723
	Item 32	3.368	1.331	0.856

Table (3-10) - continued
Item Analysis of Instrument Dimensions

Dimension	Items	Mean	Std. Deviation	Discrimination
CS-assessment	Item 33	3.418	1.315	0.590
	Item 34	3.527	1.120	0.677
	Item 35	3.127	1.263	0.741
	Item 36	3.218	1.315	0.741
	Item 37	3.691	0.998	0.708
	Item 38	3.745	1.142	0.662
	Item 39	4.036	1.387	0.341
Quality	Item 40	3.661	1.164	0.347
	Item 41	3.821	1.029	0.556
	Item 42	3.732	0.884	0.414
	Item 43	3.589	1.108	0.668
	Item 44	3.804	1.166	0.681
	Item 45	3.679	1.208	0.752
	Item 46	3.696	1.190	0.789
	Item 47	3.446	1.190	0.654
	Item 48	3.804	0.999	0.641
	Item 49	3.821	1.011	0.607
Interface	Item 50	4.293	0.859	0.594
	Item 51	3.759	1.129	0.610
	Item 52	4.138	0.963	0.718
	Item 53	3.776	1.185	0.764
	Item 54	3.586	1.243	0.621
	Item 55	3.983	1.100	0.766
	Item 56	3.966	1.108	0.758
	Item 57	3.845	1.167	0.734
	Item 58	3.845	1.105	0.752
	Item 59	3.483	1.143	0.438
Satisfaction	Item 60	3.915	0.952	0.536
	Item 61	3.695	1.303	0.778
	Item 62	3.966	0.982	0.861
	Item 63	3.797	0.961	0.836
	Item 64	3.661	1.183	0.853
	Item 65	3.627	1.299	0.830
	Item 66	3.508	1.331	0.815
	Item 67	3.695	1.178	0.413

Clearly, the autonomy dimension items (15, 21, 22, and 23) had lower correlations with the sum scale (r = 0.289, 0.291, 0.33, and 0.475 respectively), this may be because they were not clear enough and needed some modification in expression to make them consistent with other items in the questionnaire.

Item 24 in the CS-content dimension had a relatively low correlation with the scale score (r =0.335). When deleted, the alpha value for this dimension increased. At the same time, the correlation between this item and the quality dimension was relatively high. After reviewing, it was clear that this item was not consistent with other items in the same dimension. Accordingly, this item was deleted in the main study questionnaire.

Item 33 in the CS-assessment dimension was highly correlated with the quality scale scores (r =0.72, Appendix 8). This was because it was highly correlated with items, especially item 40, in the quality dimension (r =0.68). A decision on this dimension was left to be taken in the main study.

In the CS-assessment sub-scale, item 39 had low correlation with the scale score (r = 0.341). This item asked the learners to indicate their perception about the number of exams and assessment in the course. Many students put a note beside this item showing that the scale used (always, often, sometimes, rare, and never) is not appropriate for this item and could not reflect their perceptions. As a result, the researcher reviewed the scale used in version two of the questionnaire. As mentioned above, the main study questionnaire used two different Likert scales. Also, some modifications were done to this item to make it more clear and appropriate.

Item 40 had relatively low correlation with the scale score (r = 0.347). Alpha would be higher if this item were deleted. At the same time, this item was correlated with the CS-assessment sub-dimension. The author failed to find any problem with the wording of the item and its consistency with other items in the scale. As a result, this item was not deleted but was left to be rechecked in the main study.

Cronbach alpha coefficient was calculated using SPSS for each dimension to estimate the instrument reliability. The findings are presented in table (3-11). It shows that alpha value for all dimensions is above .800 which indicates high reliability of the instrument.

According to item analysis, the learners' notes given during the pilot study, and the notes taken by the researcher during the pilot study, version two of the questionnaire was modified and a third version for the main study was developed (Appendix 1). All versions as well as the final form of the instrument were approved by the research advisor.

Table (3-11)
Cronbach Alpha Coefficients of Instrument Dimensions

Dimension	N of Items	Scale Mean	Item Mean	Std. Deviation	Cronbach's Alpha
LI-interaction	8	28.942	3.618	6.838	0.880
LL-interaction	6	18.500	3.083	6.761	0.931
Autonomy	9	37.828	4.203	4.687	0.806
CS-content	9	30.561	3.396	8.390	0.911
CS-assessment	7	24.764	3.538	6.310	0.858
Quality	10	37.054	3.705	7.655	0.882
Interface	10	38.672	3.867	8.196	0.909
Satisfaction	8	29.864	3.733	7.406	0.919

3.6 Procedures

3.6.1 Data Collection

AOU-BH provided the researcher with a letter to the tutors asking for collaboration with the researcher (Appendix 9). The researcher implemented the instrument according to the selected sections timetable. After selecting the sample, the researcher attended face-to-face sessions of sections selected by SPSS to apply the instrument on the participants in order to collect the data of this research.

Some instructions were given to all participants to ensure independent and honest feedback and to ensure answering while keeping the course and section in mind. The instrument was administered in different courses, different educational levels, different sections, and with different tutors to avoid the effect of these extraneous variables. The learners answered the instrument to give their own perception on a specific course that they are studying. They used this instrument having a certain course in mind.

3.6.2 Response Rates

Thirty six sections with a total of 779 undergraduate students were randomly selected from all sections running in AOU-BH in the first semester 2006/2007. During implementation, some students were absent, some sections were cancelled and others were having exams that prevented administration of the instrument. This greatly affected the number of subjects that were supposed to participate in the study. In addition, some responses were removed from the analysis as they were not complete. For these reasons, the response rate was 46.2% (Appendix 10).

The percentage of participants from the first educational level was 53%, from the second level was 28%, from the third level was 16%, and from the forth level was 3%. Table (3-12) shows the number and percentages of participating students in each educational level of BAS and ITC programs according to major and gender.

Table (3-12)
Number and Percentages of Participated Students in Each Educational Level of BAS and ITC Programs According to Major and Gender

Level	Program	Gender		Total	Gender		Total
		Male	Female		Male	Female	
Level-1	BAS	67	35	102	66%	34%	53%
	ITC	66	23	89	74%	26%	47%
	Total	133	58	191	70%	30%	53%
Level-2	BAS	9	41	50	18%	82%	50%
	ITC	50	0	50	100%	0%	50%
	Total	59	41	100	59%	41%	28%
Level-3	BAS	0	11	11	0%	100%	19%
	ITC	3	43	46	7%	93%	81%
	Total	3	54	57	5%	95%	16%
Level-4	BAS	7	5	12	58%	42%	100%
	ITC	0	0	0	0%	0%	0%
	Total	7	5	12	58%	42%	3%
Grand Total		202	158	360	56%	44%	100%

3.6.3 Data Analysis

After data collection, data were analyzed using SPSS 14 and appropriate statistical test that helped in interpreting the collected data. MANOVA test was used in the case of categorical independent variables. Pearson correlation and regression were used in the case of quantitative independent variables.

Chapter 4
Data Analysis and Results

Chapter 4
Data Analysis and Results

4.1 Introduction

This chapter discusses the methodology used for statistical analysis of the data collected as part of this research study. This discussion is organized around the research questions guiding this study.

It starts with a presentation of the demographic and experiential characteristics of the sample using descriptive statistics including: frequencies, crosstabs, and percentages to depict the distribution of values for the independent variables, with interpretations for collapsing categorical data decisions.

Then, the results of the data analysis, using statistical methods, are presented for each research question. The data analysis is based on the data collected from the research questionnaire described in Chapter III. The discussion of the results will follow in section 4.4. Data analysis was performed using SPSS v.14.

4.2 Demographic and Experiential Characteristics of the Sample

The sample of the study consists of 360 undergraduate learners from AOU-BH. Twenty subjects were excluded from the study for analysis reasons. This was due to highly positive responses or highly negative responses that can be treated as extremes. Those 20 subjects either responded with one

answer, most probably without reading the questions, or did not complete a large part of the questionnaire.

Outliers were examined and it was found that deleting them may cause some bias in the results and this will, in turn, would have caused of other subjects. Hence, the researcher decided not to exclude subjects based on exploring outliers identified via SPSS.

The participants' demographic and experiential variables are presented in the following tables:

1-Educational Level vs. Gender:

The percentage of males in the sample is greater than females. The percentage of Level-1 learners is the highest, followed by level-2, level-3 and then level-4. Males and females percentages differed through different educational levels. Table (4-1) illustrates this.

Table (4-1)
Number and Percentages of Participants in Each Educational Level According to Gender

Level	Gender		Total	Gender		Total
	Male	Female		Male	Female	
Level-1	122	57	179	68%	32%	53%
Level-2	57	40	97	59%	41%	29%
Level-3	3	50	53	6%	94%	15%
Level-4	7	4	11	64%	36%	3%
Total	189	151	340	56%	44%	100%

Due to their small numbers in the sample, and for analysis purposes, level-2, level-3, and level-4 participants were merged as 'After year-one learners', and level-1 stayed as 'Year-one learners'. Table (4-2) shows this.

Table (4-2)
Number and Percentages of Year-one and After Year-one Participants According to Gender

Level	Gender		Total	Gender		Total
	Male	Female		Male	Female	
Year-one Participants	122	57	179	68%	32%	53%
Participants After Year-one	67	94	161	42%	58%	47%
Total	189	151	340	56%	43%	100%

2- Educational Level vs. Major vs. Gender:

The percentages of subjects registered in BAS and ITC programs were as shown in table (4-3).

Table (4-3)
Number and Percentages of Participants in BAS and ITC Programs According to Gender

Major	Gender		Total	Gender		Total
	Male	Female		Male	Female	
BAS	79	87	166	48%	52%	49%
ITC	110	64	174	63%	37%	51%
Total	189	151	340	56%	44%	100%

When table (4-3) was analyzed further, it was found that there are no female participants from level-2 studying ITC. Similarly, there were no male participants studying BAS at level-3. Also, there were no participants from the ITC program at level-4. This is shown in table (4-4).

Similar to the case with table (4-1), table (4-4) further emphasizes the need to combine participants in levels 2, 3, and 4 due to empty cells and small numbers in the sample. Table (4-5) shows sample numbers after performing this merge.

Table (4-4)
Number and Percentages of Participants in Each Educational Level of BAS and ITC Programs According to Gender

Level	Major	Gender		Total	Gender		Total
		Male	Female		Male	Female	
Level-1	BAS	63	34	97	65%	35%	54%
	ITC	59	23	82	72%	28%	46%
	Total	122	57	179	68%	32%	53%
Level-2	BAS	9	40	49	18%	82%	51%
	ITC	48	0	48	100%	0%	49%
	Total	57	40	97	59%	41%	29%
Level-3	BAS	0	9	9	0%	100%	17%
	ITC	3	41	44	7%	93%	83%
	Total	3	50	53	6%	94%	16%
Level-4	BAS	7	4	11	64%	36%	100%
	Total	7	4	11	64%	36%	3%
Grand Total		189	151	340	56%	44%	100%

Table (4-5)
Number and Percentages of Year-one and After Year-one Participants According to Major and Gender

Level	Major	Gender		Total	Gender		Total
		Male	Female		Male	Female	
Year-one Participants	BAS	63	34	97	65%	35%	54%
	ITC	59	23	82	72%	28%	46%
	Total	122	57	179	68%	32%	53%
Participants After Year-one	BAS	16	53	69	23%	77%	43%
	ITC	51	41	92	55%	45%	57%
	Total	67	94	161	42%	58%	47%
Grand Total		189	151	340	56%	44%	100%

3-Internet Experience vs. Gender

As can be seen in Table (4-6), the internet experience of the participants was high. Fifty one percent (51%) of the participants have been using the internet for more than 5 years. Only five percent (5%) have been using the internet for less than one year.

Table (4-6)
Number and Percentages of Participants According to Internet Experience and Gender

Internet Experience	Gender		Total	Gender		Total
	Male	Female		Male	Female	
Less than one year	11	6	17	65%	35%	5%
One - Two years	24	27	51	47%	53%	15%
Three-Five years	44	55	99	44%	56%	29%
More than five years	110	63	173	64%	36%	51%
Total	189	151	340	56%	43%	100%

Due to small numbers in the sample, and for analysis purposes, participants with less than one year of internet experience were combined with participants with one-two years of internet experience. Table (4-7) shows this.

Table (4-7)
Number and Percentages of Participants According to Internet Experience and Gender After Merging Categories of Internet Experience

Internet Experience (Years)	Gender		Total	Gender		Total
	Male	Female		Male	Female	
Two years or less	35	33	68	51%	49%	20%
Three-Five	44	55	99	44%	56%	29%
More than five	110	63	173	64%	36%	51%
Total	189	151	340	56%	44%	100%

4-Internet Experience vs. Educational Level

Table (4-8) shows that some participants got their internet experience from studying at AOU. The longer the participants stayed at AOU the more experience they got with the net. The table also shows that the percentage of participants with high internet experience was high in all educational levels. Approximately 80% of the participants in all levels had more than three years of internet experience.

Table (4-8)
Number and Percentages of Participants
According to Internet Experience and Educational Level

Internet Experience (Years)	Level					Level				
	1	2	3	4	Total	1	2	3	4	Total
Less Than one	16	1	0	0	17	9%	1%	0%	0%	5%
One - Two	31	13	7	0	51	17%	13%	13%	0%	15%
Three - Five	51	24	20	4	99	28%	25%	38%	36%	29%
More Than Five	81	59	26	7	173	45%	61%	49%	64%	51%
Total	179	97	53	11	340	53%	29%	16%	3%	100%

Table (4-9) shows the same information after merging categories of internet experience and educational level due to the same reasons mentioned above.

Table (4-9)
Number and Percentages of participants According to Internet Experience and Educational Level After Merging Categories of Internet Experience

Internet Experience (Years)	Year-one participants	After year-one participants	Total	Year-one participants	After year-one participants	Total
Two years or less	47	21	68	69%	31%	20%
Three-Five	51	48	99	52%	48%	29%
More Than Five	81	92	173	47%	53%	51%
Total	179	161	340	53%	47%	100%

5- Educational Level vs. Employment Status vs. Gender

Table (4-10) shows the number and percentages of participants in each educational level according to their employment status and gender. It shows also that:

- 72% of the participants were employed learners.
- 69% of the employed learners were males, while 31% of the employed learners were females.

- 22% of unemployed learners were males, while 78% of the unemployed learners were females.
- All level-3 and level-4 males were employed.

Table (4-10)
Number and Percentages of Participants in Each Educational Level According to Employment Status and Gender

Employment Status	Level	Gender		Total	Gender		Total
		Male	Female		Male	Female	
Unemployed	1	14	37	51	27%	73%	54%
	2	7	12	19	37%	63%	20%
	3	0	23	23	0%	100%	24%
	4	0	2	2	0%	100%	2%
	Total	21	74	95	22%	78%	28%
Employed	1	108	20	128	84%	16%	52%
	2	50	28	78	64%	36%	32%
	3	3	27	30	10%	90%	12%
	4	7	2	9	78%	22%	4%
	Total	168	77	245	69%	31%	72%
Grand Total		189	151	340	56%	44%	100%

Table (4-11) shows the same information after merging categories of educational levels due to small numbers and empty cells in sample.

Table (4-11)
Number and Percentages of Participants in Each Educational Level According to Employment Status and Gender After Merging Categories of Level

Employment Status	Level	Gender		Total	Gender		Total
		Male	Female		Male	Female	
Unemployed	Year-one Participants	14	37	51	27%	73%	54%
	Participants After Year-one	7	37	44	16%	84%	46%
	Total	21	74	95	22%	78%	28%
Employed	Year-one participants	108	20	128	84%	16%	52%
	Participants after year-one	60	57	117	51%	49%	48%
	Total	168	77	245	69%	31%	72%
Grand Total		189	151	340	56%	44%	100%

4.3 Instrument Reliability

Using the main study data, item discrimination index and scale reliability were reinvestigated and reliability coefficients were recalculated. The results of this analysis indicated high instrument reliability. Table (4-12) shows these results.

Table (4-12)
Cronbach alpha coefficients of Instrument Dimensions

Dimension	Cronbach's Alpha	Item Discrimination Range
LI-interaction	0.854	0.517 - 0.696
LL-interaction	0.908	0.614 - 0.822
Autonomy	0.814	0.375 - 0.636
CS-content	0.865	0.544 - 0.690
CS-assessment	0.772	.0.404 - 0.570
Quality	0.865	0.323 - 0.719
Interface	0.892	0.502 - 0.717
Satisfaction	0.938	.0.710 - 0.845

4.4 Data Analysis Related to Research Questions

4.4.1 Research Question 1

What are learners' perception of blended learning at AOU-BH?

The total learners' perception score was approximately normally distributed (Figure (4-1)) with a Mean of 212.48 (# Items = 58) and a standard deviation of 25.70. The perception score ranged from 129 to 265. The data median was 214.

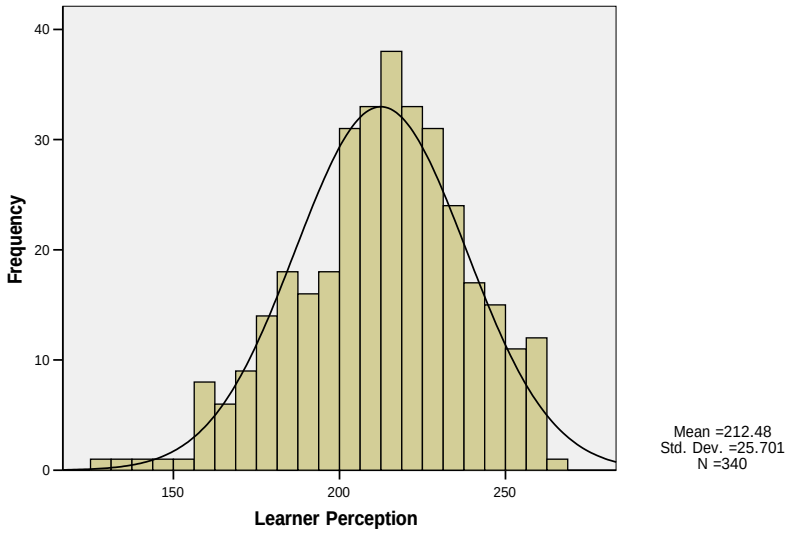

Figure (4-1)
Distribution of Learners' Perception of Blended Learning at AOU-BH

To answer question 1, each dimension and sub-dimension score was divided by the number of items comprising its subscale. As a result, the scores were rescaled to fall in the range 1-5, which is the same as the item score range. Accordingly, the score intervals could be interpreted as shown in table (4-13). These interpretations are based on the item responses (strongly disagree to strongly agree, or never to always), and on the fact that a dimension or sub-dimension score constituted a continuous variable. Following the common convention, an interval contains the lower real limit but not the upper real limit.

Table (4-13)
Interpretations of the Dimensions and Sub-Dimensions Score Intervals

	Score Interval	Interpretation
1	0.5 – 1.5	Highly Negative
2	1.5 – 2.5	Negative
3	2.5 – 3.5	Neutral (Neither Negative Nor Positive)
4	3.5 – 4.5	Positive
5	4.5 – 5.5	Highly Positive

The rescaled scores were used in three analyses. First, the one-sample t-test was used to test whether the mean score of each perception variable exceeded 3. The hypothesized value of 3 was used because it is the midpoint of the score range from one to five. In terms of the item response categories, three is the point indicating a neutral perception. Second, a 95% confidence interval for the mean was computed for each variable. Currently, confidence intervals are preferred, in most situations, to hypothesis tests (Cohen, Cohen, West, & Aiken, 2003). In the present test, all that a significant result can assert is that the mean exceeded 3, without providing information about the amount by which it exceeded 3, or the magnitude of the error in the result. Finally, repeated measurement ANOVA was used to examine equality of the means for the various variables. The purpose of the latter analysis was to determine whether perceptions of the various dimensions were equally positive.

Table (4-14) presents the results of the first analysis. As the table shows, all sample means were greater than 3. Moreover, the *t* values indicate that the population means were significantly greater than 3. Thus, it is possible to infer that, on the average, the students in the study population had perceptions with regard to each dimension that were either positive or neutral.

Table (4-14) also shows the results related to the second analysis. As would be expected from the values of the sample means, the lower limit of each 95% confidence interval is greater than 3. Using the upper and lower limits of the confidence intervals in conjunction with the criteria in table (4-13), it can be concluded that for all dimensions, the perceptions were at least

neutral. Table (4-14) shows that the perceptions were positive for 6 dimensions, and neutral for the remaining 4 dimensions.

Table (4-14)
Test for the Hypothesis that the Mean Dimension Score Exceeds 3 and Confidence Intervals for the Mean

Dimension	*M*	*S*	*t*†	95% CI Limits		Interpretation
				Lower	Upper	
LI-interaction	3.7	.7	18.463***	3.7	3.8	Positive
LL-interaction	3.3	1.0	5.072***	3.2	3.4	Neutral
Interaction	3.5	.6	16.180***	3.5	3.6	Positive
Autonomy	4.4	.5	49.550***	4.3	4.4	Positive
CS-content	3.4	.8	8.352***	3.3	3.4	Neutral
CS-assessment	3.3	.7	8.196***	3.3	3.4	Neutral
Course Structure	3.3	.7	9.600***	3.3	3.4	Neutral
Quality	3.6	.7	17.453***	3.6	3.7	Positive
Interface	3.7	.8	16.571***	3.6	3.8	Positive
Total Perception	3.7	.4	27.605***	3.6	3.7	Positive

*****p<.001; t† value for the hypothesis that the mean exceeds 3.**

As for the third analysis, repeated measurement ANOVA was used to examine the differences between the means of LI-interaction, LL-interaction, autonomy, CS-content, CS-assessment, quality, and interface. Total interaction, total course structure, and total perceptions were left out of the analysis since they are linearly dependent on their sub-dimensions. ANOVA results indicated that the seven means were significantly different at the 0.001 level (F = 107.244, df_1 = 6, df_2 = 2034). Figure (4-2) shows the profile of the dimension means, and tests of within-subject contrasts shown in table (4-15) indicated that this profile could be described by a polynomial of the sixth order. The within-subjects factor in this table comprises the set of perception dimensions.

Table (4-15)
Tests of Within-Subjects Contrasts for Means of the Perception Dimensions

Source		Type Sum of Squares	*df*	Mean Square	*F*	*Sig.*
Perceptions	Linear	2.194	1	2.194	4.664	.032
	Quadratic	1.912	1	1.912	5.573	.019
	Cubic	22.447	1	22.447	40.899	.000
	Order 4	5.876	1	5.876	8.592	.004
	Order 5	180.845	1	180.845	552.953	.000
	Order 6	75.437	1	75.437	236.708	.000
Error(Perceptions)	Linear	159.485	339	.470		
	Quadratic	116.336	339	.343		
	Cubic	186.053	339	.549		
	Order 4	231.838	339	.684		
	Order 5	110.871	339	.327		
	Order 6	108.037	339	.319		

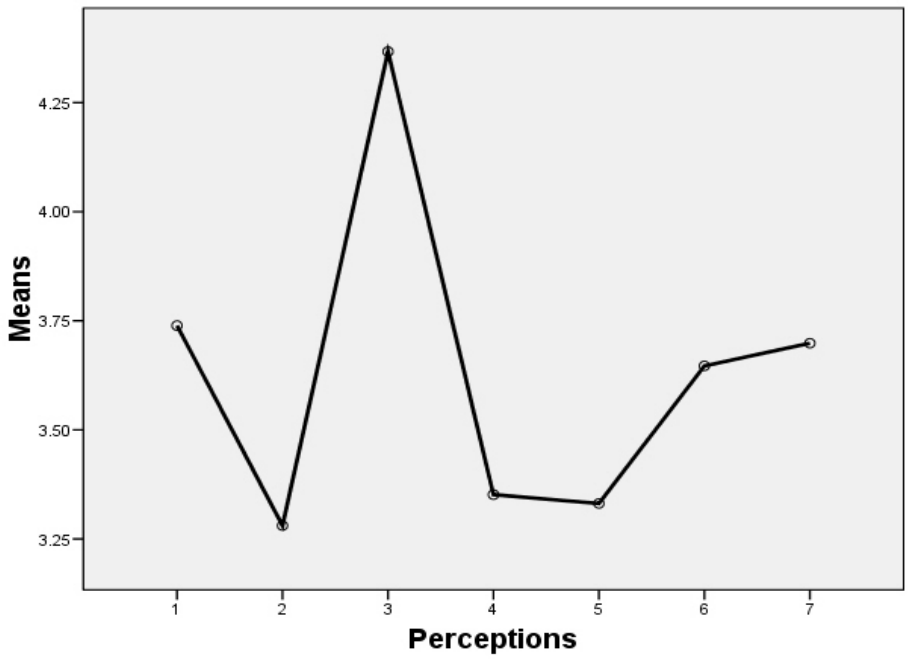

Figure (4-2)
Profile of the Perception Dimensions Means

Note: Numbers in the horizontal axis stand for the following dimensions: 1- LI-interaction, 2- LL-interaction, 3- Autonomy, 4- CS-content, 5- CS-assessment, 6- Quality, and 7- Interface.

Pairwise comparisons between means of the seven dimensions were carried out via the Bonferroni procedure at the 0.05 significance level. Table (4-16) presents results of these comparisons. Perception dimensions in this table are numbered in the same way as they are numbered in figure (4-2). It would be noted that significance of the mean differences in the table agrees with the visual representation in figure (4-2). According to the configuration of significant and non-significant mean differences in this table, the seven dimensions could be ordered from high to low positive perceptions as follows (dimensions within each category are not different with regard to how positive they are):

1- Autonomy;

2- LI-interaction, Quality of instructional methods, Interface;

3- LL-interaction, CS-assessment, CS-content.

Table (4-16)
Results of the Pairwise Benferroni Comparisons between Means of the Perception Dimensions

	(2)	(5)	(4)	(6)	(7)	(1)	(3)
	LL-interaction	CS-assessment	CS-content	Quality	Interface	LI-interaction	Autonomy
LL-interaction	-----	.05	.07	.37*	.42*	.46*	1.09*
CS-assessment	-----	-----	.02	.32*	.37*	.41*	1.04*
CS-content	-----	-----	-----	.30*	.35*	.39*	1.02*
Quality	-----	-----	-----	-----	.05	.09	.72*
Interface	-----	-----	-----	-----	-----	.04	.67*
LI-interaction	-----	-----	-----	-----	-----	-----	.63*

4.4.2 Research Question 2

Is there a relationship between learners' age and their perception of blended learning at AOU-BH?

There was no relationship between learners' age and their perception of blended learning in the AOU-BH (Figure (4-3)). The correlation between the two variables was equal to 0.04.

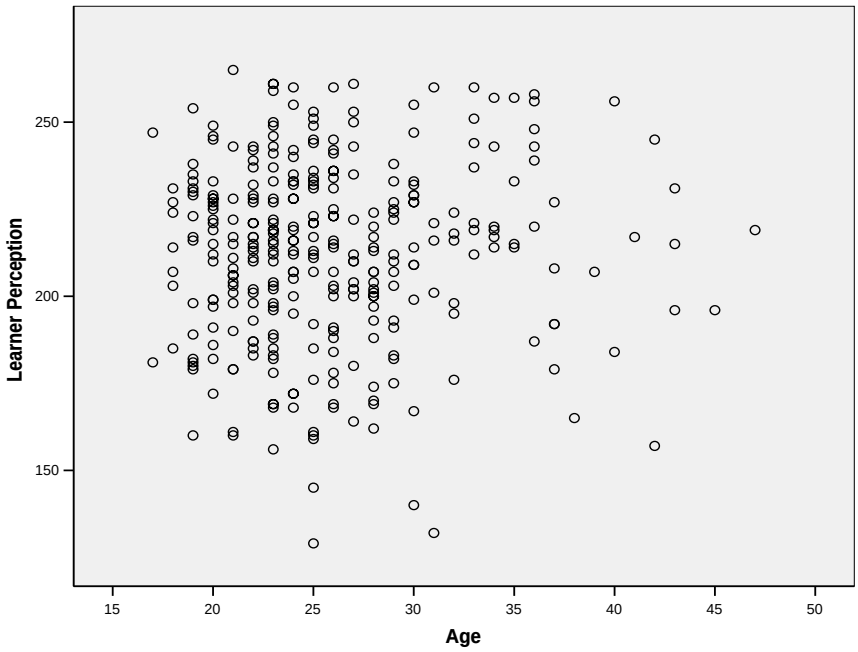

Figure (4-3)
Scatter Plot for the Relationship Between the Learners' Perception and Age

Furthermore, the correlations between learners' age and the perception dimensions were very weak and insignificant. Table (4-17) shows the correlations between age and the perception dimensions: interaction, autonomy, course structure, quality, and interface.

Table (4-17) Correlations Between Age and Learners' Perception Dimensions		
Perception Dimensions		
Learner Perception	Pearson Correlation	0.04
	Sig. (2-tailed)	0.49
Interaction	Pearson Correlation	0.04
	Sig. (2-tailed)	0.43
Autonomy	Pearson Correlation	0.04
	Sig. (2-tailed)	0.49
Course Structure	Pearson Correlation	0.05
	Sig. (2-tailed)	0.35
Quality	Pearson Correlation	0.06
	Sig. (2-tailed)	0.25
Interface	Pearson Correlation	-0.07
	Sig. (2-tailed)	0.24

4.4.3 Research Question 3

Is there a relationship between learners' gender and their perception of blended learning at AOU-BH?

Since the independent variable in this question (Gender) was a categorical variable and the question dealt with its relationship with multiple continuous dependent variables (dimensions of perception), the appropriate analysis procedure was MANOVA followed by univariate ANOVA. However, it would be recalled that the perception construct included five dimensions, and in turn, two of these dimensions included sub-dimensions. Specifically, interaction included two sub-dimensions: LI-interaction, and LL-interaction; course structure included two sub-dimensions: CS-content and CS-assessment. For this reason, MANOVA and ANOVA were repeated three times, first with the interaction sub-dimensions, then with the course structure sub-dimensions, and finally with the five main dimensions. In each case, the assumptions of MANOVA and ANOVA were investigated for gross violations. It is known that these procedures are

robust to violations of normality if the sample size is large, as was the case in the present study. In addition, only gross violations of assumptions of homogeneity of variance and covariance have adverse effect on the significance level evaluation. Box test was used for assessing significance of the equality of covariance matrices, and Leven's test was used for assessing the significance of the homogeneity of variance. In both cases, only values of *p* less than 0.001 were taken as evidence of gross violation of the assumption of homogeneity. The following paragraphs present the results of the MANOVA and ANOVA tests.

For the sub-dimensions LI-interaction and LL-interaction, Box's test indicated that the covariance matrices of the male and female students were not significantly different ($p = 0.111$). The MANOVA procedure indicated that the two groups did not differ with respect to the means of the two sub-dimensions ($F = 2.935$, $df1 = 2$, $df2 = 337$, $p = 0.054$). Table (4-18) presents the mean and standard deviation of male and female students on LI-interaction and LL-interaction. As the table shows, the means of the two groups were slightly different. Though the same table presents results of the univariate ANOVA for the difference between the mean of the two groups on each sub-dimension, these results could be ignored as the MANOVA test was not significant. In summary, it could be concluded that the male and female students did not differ with respect to either LI-interaction or LL-interaction.

Results of the differences between the group means on CS-content and CS-assessment were similar to the results of the interaction sub-dimensions. The *p*-value for Box's test was 0.437, and the MANOVA test was not significant ($F = 2.901$, $df1 = 2$, $df2 = 337$, $p = 0.056$). In addition, values of

the means in table (4-18) indicate that the male and female sub-populations did not differ with respect to the sub-dimensions of course structure.

As for the main five dimensions of perception, Box test indicated that the differences between the covariance matrices of the male and female students were significant at 0.05 ($p = 0.027$). As mentioned earlier, such a *p*-value does not necessarily constitute evidence that the two covariance matrices are heterogeneous. Similarity of the values of the sample standard deviations in table (4-18) provides additional evidence that the corresponding values were not different. Leven's test indicated that the only significant difference between the variances of the groups was that related to autonomy. However, the *p*-value for this test was 0.048, which would not be taken as evidence to the heterogeneity of the variances.

The MANOVA procedure indicated that the differences between the means of the two groups were significant at the 0.05 level ($F = 2.768$, $df1 = 5$, $df2 = 334$, $p = 0.018$). As table (4-18) show, only differences between the means of course structure and interface were significant ($p < 0.05$). However, the mean values of the two groups on these dimensions show that the differences between the male and female students were not large. In fact, the mean difference in terms of the standard deviation of the total group was 0.22 and 0.23 for the course structure and interface dimensions, respectively. These differences could be considered as only marginally important.

Table (4-18)
Significance of the Male and Female Mean Differences on the Dimensions and Sub-dimensions of Perception

Dimension	Males (N = 189)		Females (N = 151)		F
	M	S	M	S	
LI-interaction	30.3	6.0	29.4	5.7	1.963
LL-interaction	19.1	5.6	20.4	6.7	3.672
CS-content	27.2	6.4	26.3	6.0	1.817
CS-assessment	23.9	5.3	22.6	5.1	5.771*
Interaction	49.4	8.5	49.8	8.8	0.155
Course Structure	51.1	10.2	48.9	9.2	4.502*
Quality	36. 9	7.0	35.9	6.6	1.645
Interface	37.8	7.3	36.0	8.2	4.409*
Autonomy	38.9	4.8	39.8	4.2	2.985

***P<0.05**

4.4.4 Research Question 4

Is there a relationship between learners' Educational Level and their perception of blended learning at AOU-BH?

The two groups that defined the educational level variable (year-one students, after year-one students) are referred to here by juniors and seniors for brevity. As in the previous question that involved an independent categorical variable and continuous dependent variables, the MANOVA and ANOVA procedures were used. For the sub-dimensions LI-interaction and LL-interaction, Box's test indicated that the covariance matrices of the two groups were not significantly different (p = 0.392). The MANOVA procedure indicated that the means of the juniors and seniors were significantly different (F = 16.764, $df1$ = 2, $df2$ = 337, p < 0.001). As Table (4-19) shows, the two groups were significantly different at 0.001 with respect to the mean of LL-interaction, and were not significantly different with respect to the mean of LI-interaction. Moreover, the mean of the seniors exceeded that of the juniors by about 0.6 in terms of the standard

deviation of the total group. In contrast, the corresponding difference between the means of the LI-interaction was less than 0.2 standard deviations. In summary, it could be concluded that seniors had more favorable view of the level of interaction among them than juniors did, whereas the two groups had similar views of their interaction with instructors.

Analysis of the differences between juniors and seniors on the means of CS-content and CS-assessment indicated that the covariance matrices were not significantly different ($p = 0.478$). Similarly, the MANOVA test was not significant ($F = 0.998$, $df1 = 2$, $df2 = 337$, $p = 0.370$). In addition, values of the means in table (4-19) indicate that the juniors and seniors differed by less than one point on CS-content and CS-assessment. In summary, it could be concluded that the junior and senior student sub-populations did not differ with respect to the sub-dimensions of course structure.

As for the main five dimensions of perception, Box's test indicated that the covariance matrices of the junior and senior learners were significantly different at the 0.05 level ($p = 0.032$). As mentioned earlier, this would not be considered as evidence to violation of the assumptions of MANOVA, especially that the sample standard deviations were not very different and the sample sizes were approximately equal (see table (4-19)). The MANOVA procedure indicated that the differences between the means of the two groups were significant ($F = 5.456$, $df1 = 5$, $df2 = 334$, $p < 0.001$). As table (4-19) shows, the means of the juniors and seniors were significantly different only for the dimensions of interaction and interface. In terms of the standard deviation of the total group, the interaction mean

of the seniors exceeded that of the juniors by a moderate amount of 0.30 standard deviations. In contrast, the mean of the juniors on interface exceeded that of the seniors by 0.35 standard deviations. In general, then, it could be stated that senior student subpopulation viewed the interaction more positively than the junior subpopulation, whereas the junior subpopulation perception of the interface was more positive than that of the seniors. With regard to other dimensions, the two groups were similar.

Table (4-19)
Significance of the Mean Differences on the Dimensions and Sub-dimensions of Perception according to Educational Level

Dimension	Juniors (N = 179)		Seniors (N = 161)		F
	M	S	M	S	
LI-interaction	30.4	5.9	29.4	5.9	2.055
LL-interaction	18.0	5.6	21.5	6.1	30.047***
CS-content	27.3	6.1	26.3	6.3	1.999
CS-assessment	23.5	5.0	23.1	5.5	0.420
Interaction	48.4	8.7	51.0	8.4	7.801**
Course Structure	50.8	9.6	49.4	10.1	1.522
Quality	36.7	6.8	36.2	6.9	0.578
Interface	38.3	6.6	35.6	8.7	10.684***
Autonomy	39.3	4.4	39.4	4.8	0.038

***P<0.05; ***P<0.05**

4.4.5 Research Question 5

Is there a relationship between learners' experience with the internet and their perception of blended learning at AOU-BH?

As in the previous question, two types of variables were involved, an independent categorical variable (Internet Experience: less than 2 years, 2-5 years, more than 5 years), and a multiple dependent variable (perceptions). Thus, a similar analysis was performed, with the exception of conducting a post-hoc test when a significant ANOVA test was found. This follow-up analysis was necessary because the independent variable consisted of three levels. For brevity, the three levels of experience with

the internet will be referred to by the descriptions: low, medium, and high experience.

For the sub-dimensions LI-interaction and LL-interaction, Box's test indicated that the covariance matrices of the three groups were not significantly different (p = 0.779). The MANOVA procedure indicated that the three groups did not differ with respect to the means of the two sub-dimensions (F = 1.555, $df1$ = 4, $df2$ = 672, p = 0.185). Thus, no further analyses were needed. Table (4-20) presents the sample means and standard deviations of the groups on LI-interaction and LL-interaction. In terms of the standard deviation of the total group, the maximum differences between the means of a pair of groups were .25 for each dimension. In summary, it could be concluded that learners with varying levels of internet experience did not differ with respect to either LI-interaction or LL-interaction.

Results of the differences between the three groups on the means of CS-content and CS-assessment were similar to the results of the interaction sub-dimensions. The p-value for Box's test was 0.173, and the MANOVA test was not significant (F = 0.451, $df1$ = 4, $df2$ = 672, p = 0.771). In addition, values of the means in table (4-20) indicated that, in terms of the standard deviation of the total group, the maximum differences between the means of a pair of groups were 0.17 and 0.09 on CS-content and CS-assessment, respectively. In summary, it could be concluded that learners with varying levels of internet experience did not differ with respect to the sub-dimensions of course structure.

As for the main five dimensions of perception, Box's test indicated that the covariance matrices of the male and female learners were significantly

different at the 0.01 level ($p = 0.008$). In addition, Leven's test showed that only the variances of autonomy were significantly different. However, the sample standard deviations of autonomy shown in table (4-20) indicated that the sub-population variances would not be greatly different. In view of the above information, it seemed that violations of MANOVA and ANOVA were not serious enough to invalidate inferences from these analyses.

The MANOVA procedure indicated that the differences between the means of the three groups were significant at the 0.01 level ($F = 2.359$, $df1 = 10$, $df2 = 666$, $p = 0.010$). As table (4-20) show, only group means of autonomy were significantly different. Pairwise mean comparisons were conducted at 0.05 level, using the Bonferroni procedure. Results of this analysis indicated that the only significant difference was that between the mean of the high experience group and the mean of the low experience group. The sample mean of the high experience group exceeded the mean of the low experience group by 0.45 standard deviation units of the total group. In general, then, it could be inferred that learners' subpopulation with high internet experience tended to perceive themselves as more autonomous, as learners, than student's sub-population with low internet experience. However, there were no differences in autonomy between sub-populations with medium and low internet experience, and between sub-populations with high and medium internet experience. In addition, there were no differences between the three sub-populations in the other four dimensions of perception.

Table (4-20)
Significance of the Mean Differences on the Dimensions and Sub-dimensions of Perception according to Experience with the Internet

Dimension	Low (N = 68)		Medium (N=99)		High (N = 173)		F
	M	S	M	S	M	S	
LI-interaction	29.22	5.587	30.71	5.552	29.73	6.197	1.451
LL-interaction	18.68	5.875	19.43	6.419	20.22	6.007	1.675
CS-content	27.63	5.300	26.67	6.081	26.57	6.604	0.749
CS-assessment	23.59	5.198	23.47	5.035	23.12	5.342	0.258
Interaction	47.90	8.345	50.14	8.842	49.95	8.632	1.656
Course Structure	51.22	8.954	50.14	9.890	49.69	10.183	0.585
Quality	36.07	6.412	36.35	6.713	36.68	7.081	0.211
Interface	38.03	6.570	35.55	7.473	37.40	8.285	2.581
Autonomy	37.84	5.894	39.22	4.174	39.92	4.076	5.128**

****P* < 0.01**

4.4.6 Research Question 6

Is there a relationship between learners' employment status and their perception of blended learning at AOU-BH?

As in the previous three questions, the independent variable (Employment Status: employed, unemployed) was a categorical variable. Thus, a similar analysis was performed. For the sub-dimensions LI-interaction and LL-interaction, Box's test indicated that the covariance matrices of the two groups were not significantly different (p = 0.262). The MANOVA procedure indicated that the two groups did not differ with respect to the means of the two sub-dimensions (F = 1.779, $df1$ = 2, $df2$ = 337, p = 0.170). Table (4-21) presents the sample means and standard deviations of the two groups on LI-interaction and LL-interaction. As the table shows, the means of the two groups differed by about one point on each sub-dimension. Though the same table presents results of the univariate ANOVA for the difference between the mean of the two groups on each sub-dimension, these results could be ignored as the MANOVA test was

not significant. In summary, it could be concluded that employed and unemployed learners did not differ with respect to either LI-interaction or LL-interaction.

Results of the differences between the two groups on the means of CS-content and CS-assessment were similar to the results of the interaction sub-dimensions. The *p*-value for Box's test was 0.134, and the MANOVA test was not significant ($F = 1.826$, $df1 = 2$, $df2 = 337$, $p = 0.163$). In addition, values of the means in table (4-21) indicate that the employed and unemployed learners differed by 1.1 and 0.3 points on CS-content and CS-assessment, respectively. In summary, it could be concluded that employed and unemployed student sub-populations did not differ with respect to the sub-dimensions of course structure.

As for the main five dimensions of perception, Box test indicated that the covariance matrices of the employed and unemployed learners were not significantly different ($p = 0.094$). Moreover, the MANOVA procedure indicated that the differences between the means of the two groups were not significant ($F = 1.719$, $df1 = 5$, $df2 = 334$, $p = 0.130$). As table (4-21) show, mean score differences varied from 0.1 to 1.6, with most differences being close to 1. In general, then, it could be stated that employed and unemployed student subpopulations did not differ with respect to any of the dimensions and sub-dimensions of perception.

Table (4-21)
Significance of the Mean Differences on the Dimensions and Sub-dimensions of Perception according to Employment Status

Dimension	Unemployed (N = 95)		Employed (N = 245)		F
	M	S	M	S	
LI-interaction	30.6	5.5	29.7	6.0	1.582
LL-interaction	20.5	6.7	19.4	5.9	2.098
CS-content	27.6	5.7	26.5	6.4	2.076
CS-assessment	23.1	5.2	23.4	5.2	0.151
Interaction	51.0	8.5	49.0	8.7	3.558
Course Structure	50.7	9.7	49.9	9.9	0.483
Quality	36.4	6.3	36.5	7.0	0.005
Interface	38.1	7.7	36.5	7.8	2.910
Autonomy	40.0	3.8	39.0	4.8	3.767

4.4.7 Research Question 7

Are there any relationships between the dimensions of learners' perceptions, and do these dimensions have effect on learners' satisfaction with blended learning?

Table (4-22) shows the mean and standard deviation of the seven perception dimensions and satisfaction. The distribution of satisfaction was negatively skewed (skewness = -.875) and more peaked in comparison with the normal distribution (kurtosis = 0.436). However, assumptions of multiple regression are related to the distribution of residuals rather than the distribution of the dependent variable. The plot of standardized residuals against predicted values in figure (4-4) indicates that the assumption of linearity was not violated, as indicated by the Loess curve which is fairly horizontal. However, the assumption of homoscedasticity of residual variance was violated as revealed by the same figure. As the figure indicates, the source of this violation is the narrow range of variability of residuals corresponding to the standardized predicted scores

between 1 and 2. Moreover, the normal plot of the standardized residuals in figure (4-5) indicates that the residuals were approximately normally distributed.

Table (4-22)
Mean and Standard Deviation of the Perception Dimensions and Satisfaction (*N* =340)

	M	*S*
LI-interaction	29.9	5.9
LL-interaction	19.7	6.1
Autonomy	39.3	4.6
CS-content	26.8	6.2
CS-assessment	23.3	5.2
Quality	36.5	6.8
Interface	37.0	7.8
Satisfaction	30.2	7.5

Correlations among the dependent and independent variables were computed. Table (4-23) shows that among the 21 correlations between the perception dimensions, only seven fell in the range from 0.31 to 0.48 and thus reflected significant moderate relationships while the remaining were either statistically insignificant or reflected weak relationships. Moreover, CS-assessment was involved in four of the seven significant and moderate correlations. In general, values of the correlations among the independent variables were not high to the extent that multicolinearity would obscure interpretations of the results.

As for the correlations between satisfaction and the dimensions of perception (table 4-23), four of the dimensions, namely CS-content, CS-assessment, quality, and interface were moderately related to satisfaction, with the quality and interface correlations being the highest.

Table (4-23)
Correlations among in the Independent and Dependent Variables (*N* =340)

	LI-interaction	LL-interaction	Autonomy	CS-content	CS-assessment	Quality	Interface
LL-interaction	.036						
Autonomy	.176***	.214***					
CS-content	.260***	.001	.130*				
CS-assessment	.360***	.031	.178***	.484***			
Quality	.309***	.256***	.268***	.432***	.469***		
Interface	.248***	.094	.275***	.361***	.419***	.252***	
Satisfaction	.173***	.194***	.251***	.327***	.345***	.471***	.410***

***** Correlation is significant at the 0.001 level (2-tailed).**

*** Correlation is significant at the 0.05 level (2-tailed).**

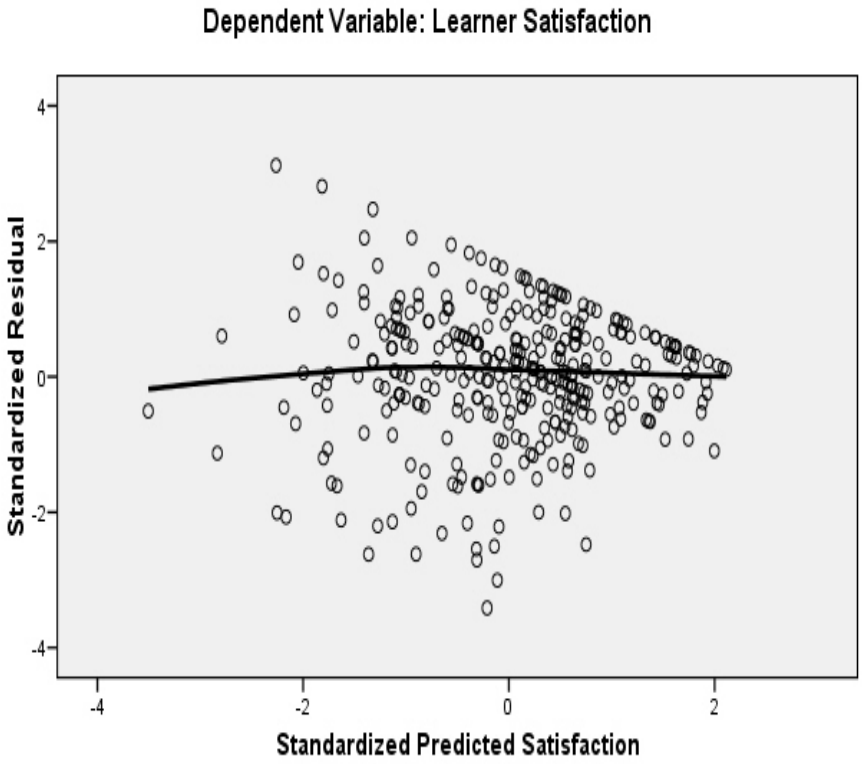

Figure (4-4)
Plot of Standardized Residuals Versus Standardized Predicted values

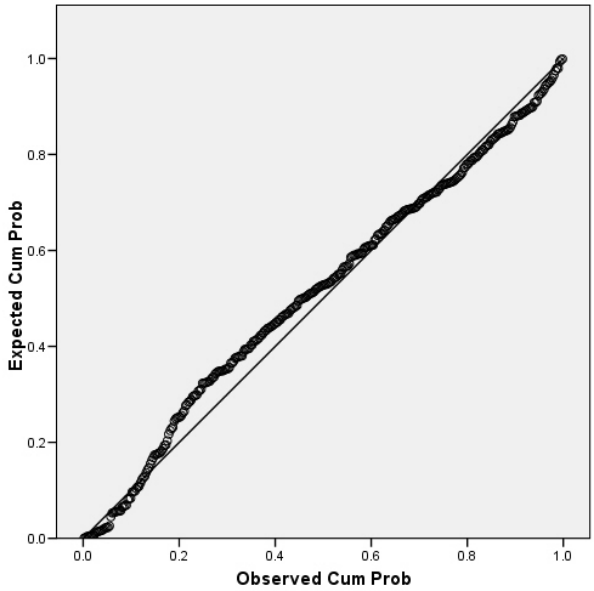

Figure (4-5)
Normal Plot of the Standardized Residuals

Regression analysis results revealed that the multiple correlation between the seven dimensions and satisfaction was 0.571 (F = 22.972, $df1$ = 7, $df2$=332, p<0.001), which means that the perception dimensions account for a sizeable percentage (about 33%) of the variability of satisfaction. The importance of this percentage is further ascertained by the fact that the adjusted squared multiple correlation was 0.312.

The unique effects of the perception dimensions were revealed by the partial regression coefficients that are shown in table (4-24). According to this table, the only significant effects were those related to quality and interface. These results mean that quality of instructional methods had a significant effect on satisfaction after controlling for the effects of the other six dimensions. Similarly, course interface had a significant effect on satisfaction after controlling for the effects of the other six dimensions. To interpret the latter results, it would be important to go back to the results related to the zero-order correlations in table (4-24). Statistical significance

of the partial regression coefficients was consistent with the correlations of LI-interaction (r =0.173), LL-interaction (r = 0.194), autonomy (r = 0.251), quality (r = 0.471), and interface (r = 0.410). However, the two types of results were not consistent for CS-content (r = 0.327) and CS-assessment (r = 0.345). A plausible interpretation of this inconsistency can be inferred from table (4-24). Both CS-content and CS-assessment were moderately correlated with quality and interface. It would thus seem that these two variables shared their joint effect on satisfaction with quality and interface, whereas quality and interface had unique effects on satisfaction beyond the joint effect.

It might be suspected that the non-significance of the partial coefficients of the CS-content and CS-assessment were due to the violation of the homoscedasticity assumption. However, it is doubtful that this was the case. Violation of this assumption affects estimate of the standard error of the partial coefficients but not estimates of the partial coefficients themselves. Table (4-24) shows that the partial coefficients of CS-content and CS-assessment were small compared to those of quality and interface, while the standard errors of the four dimensions were comparable.

To summarize, the perception dimensions, taken together, had sizeable effect on satisfaction with blended learning. However, quality of instructional methods and interface were the most important dimensions for explaining satisfaction with learning. Each one of them accounted for individual differences in satisfaction with learning beyond what was shared with the remaining dimensions.

Table (4-24)
Partial Regression Coefficients for the Regression of Satisfaction on the Dimensions of Perception (*N* = 340)

	Un standardized Coefficients		Standardized Coefficients	t	Sig.
	Coefficient	SE			
(Constant)	-.650	3.362		-.193	.847
LI-interaction	-.056	.063	-.044	-.895	.371
LL-interaction	.086	.059	.070	1.463	.144
Autonomy	.106	.080	.065	1.325	.186
CS-content	.083	.066	.068	1.243	.215
CS-assessment	.066	.084	.046	.794	.428
Quality	.364	.062	.330	5.847***	.000
Interface	.261	.051	.270	5.172***	.000

***** Regression coefficient is significant at the 0.001 level (2-tailed).**

4.5 Result Discussions

Before starting discussing the results it is important to note that the researcher's work experience at AOU-BH contributed in explaining the results of the study.

4.5.1 Learners' Perception of Blended Learning

The overall perception of learners of blended learning at the AOU-BH was found to be positive. The same is true for the perception dimensions: LI-interaction, autonomy, quality, and interface. For the LL-interaction and the course structure dimensions perception was found neutral.

This may be explained as being directly related to the nature of blended learning that depends on online communication without the complete loss of face-to-face sessions (Colis & Moonen, 2001). Blended learning is, thus, completely strange to the traditional way of learning that most learners are used to. Attending face-to-face sessions can comfort the learners by being

in contact with the instructor and other learners, and this may cover any shortage in pure online learning (Rovai & Jordan, 2004).

At the same time, the number of face-to-face sessions is low in blended learning in the AOU-BH model. This helps the employed learners, who are a majority in this case (72% of the sample), to manage between being employed, a student, along with having other life responsibilities. This may be another reason for the high perception they expressed about blended learning. This is inline with Wagner et al. (2002) who reached similar results.

These positive perceptions can also be attributed to the fact that the AOU-BH strived since its establishment to achieve quality by developing the academic and administrative electronic services in the branch (AOU-BH Annual report, 2006).

With regards to the high self-perception of learners as being highly autonomous, this can be explained by looking at the nature of learners at AOU. Approximately 84% of the participants in this study were above the age of 20. This may be consistent with Knowles theory that said that autonomous behavior and being self-directed is a nature of adult learners (Moore, 1997).

However, it seems from the learners' responses that LL-interaction and course structure are still not up to the expectations of learners since their perception of this dimension was the lowest compared to other perception dimensions.

4.5.2 Age and its Relationship with Perception

Since the correlations between age and all perception dimensions were insignificant, age was found to be an insignificant factor in the learners' overall perception and the perception dimensions. Learners of different age perceived blended learning equally. This maybe explained by the reason that blended learning at AOU-BH was developed based on good instructional designs that assure appropriateness for all adult learners.

This result agrees with Koohang and Durante (2003) study which measured learners' perception toward the Web-based distance learning activities/assessment portion of a hybrid program. In fact, some of the items used to measure the quality in our case were adopted from Koohang and Durante (2003). The same results were reached in AOU-BH settings. It is important to note that Koohang and Durante (2003) used an instrument that only measured the quality and not other dimensions that are being studied in this research.

At the same time, the results of this study contradict with Huang (2002) study that found that age is correlated significantly with the perception dimensions. This may be due to the small sample and different setting that took place in Huang study.

4.5.3 Gender and its Relationship with Perception

1- Gender with Interaction:

There are no significant differences between male and female perception of the interaction sub-dimensions. Despite that it might not be the expected outcome in this region of the world; this result might be due to the fact that

AOU-BH separates males from females in face-to-face sessions. This makes learners more comfortable in interacting with their instructors and with other learners.

2- Gender with Course Structure:

The data show no significant differences between male and female perception of course structure sub-dimensions (CS-content and CS-assessment). This may be related to the same reason mentioned previously with regards to age. That is, the instructional designs of blended learning courses at AOU-BH were developed in a way that is appropriate to both genders.

3- Gender with Perception:

There are no significant differences between males and females with regards to the perception dimensions. This, again, supports our argument that the instructional designs of blended learning courses at AOU-BH were developed in a way that is appropriate to both genders. Koohang and Durante (2003) reached to the same finding that both males and females perceived blended learning equally. As stated before, that study focused on the quality dimension.

4.5.4 Educational Level and its Relationship with Perception

1- Educational Level with Interaction:

The relationship between educational level and LL-interaction was significant. Learners after year-one perceived LL-interaction significantly more than year-one learners. This difference may be linked to several reasons. First, year-one learners usually come from educational systems

that do not promote LL-interaction. Year-one learners use their first year to blend into this new system that considers LL-interaction as a central method that supports learning.

Second, unlike year-one learners, who attend courses with other learners coming from different disciplines; learners after year-one start to specialize in particular majors. This makes participation and communication with other learners easier and more useful since, usually, learners in those sections talk the same language.

Lastly, the AOU-BH student community relies heavily on online forums beside the Learning Management System (LMS) which is the official interface. Spending more and more time communicating with other learners online raises the perception of those learners with regards to LL-interaction.

There are no significant differences between year-one learners and learners after year-one in there perception of LI-interaction. Both levels have shown high perception of this sub-dimension. This means that the interaction between learners and their instructors, whether online or during face-to-face sessions, is adequate to satisfy the needs of the learners.

2- Educational Level with Course structure:

The data showed no significant differences between year-one learners and learners after year-one in there perception of course structure sub-dimensions (CS-content and CS-assessment). This may be related to the same reason mentioned previously, with regards to age, that the instructional designs of blended learning courses at AOU-BH were developed in a way that is appropriate to all levels.

3- Educational Level with Perception:

When looking at the relationship between the perception dimensions and educational level, there was no significant relationship except for the interaction dimension, which was discussed above, and the interface dimension. Year-one learners perceived the interface significantly higher than learners after year-one. This may be due to the longer exposure that the learners at the higher levels have to the problems related to the IT infrastructure and support services at AOU-BH. Problems such as internet disconnections, server unavailability, account accessibility, dead or wrong links in the course content, and insufficient support services might all contribute to this reduction in the perception level of learners. Year-one learners, on the other hand, have no benchmark to which they can compare such services.

4.5.5 Learners' Experience with the Internet and its Relationship with Perception

1- Internet experience with Interaction:

The relationship between learners' experience with the internet and the interaction sub-dimensions was insignificant. This may be because interaction in blended learning takes place online and through face-to-face sessions. Learners with low internet experience can compensate their low abilities in using the net with face-to-face interaction. Another reason may be that online communication does not need a long time to be mastered. Only 20% of the learners in AOU-BH have Two years or less of internet experience, while 80% have more than three years of experience. Finally, this may be because learners have to take a compulsory course in IT that focuses on online communication tools and skills that can reduce the gap

between those with Two years or less of experiences and those with more than three years of experience.

2- Internet Experience with Course Structure:

The relationship between learners' experience with the internet and the course structure sub-dimensions was insignificant. This may be because the content and materials provided to the learners are composed of both soft and hard materials. Learners with lower level of experience with the internet may rely on hard materials to make up for their lack of experience with online materials. Also, the online materials may be well designed and can suit even learners with low internet experience. In addition, the Learning Online course (TU170) taken by all learners at the year one helps the learners master the skills needed in the online learning settings.

3- Internet Experience with Perception:

The relationship between learners' experience with the internet and the perception dimension was significant. This agrees in general with Koohang and Durante (2003) findings that the experience with the internet has a significant effect on learners' perception of undergraduate learners. Learners who had more experience with the internet expressed significantly higher positive perception of the blended learning program. Also, Koohang and Weiss (2003) found that prior experience with the internet was a significant factor for courseware usability and Web-based instructional design in another study that was conducted with graduate learners in a blended learning environment.

The relationship between learners' experience with the internet and the autonomy dimension was found to be significant. The Mean of autonomy

for learners with internet experience of Two years or less is less than the Mean of autonomy for those with 'more than five years' of experience. Learners with more than five years of internet experience perceived themselves to be more autonomous in the courses than those with Two years or less of internet experience. The more internet experience the learner has the more autonomy can he/she practice in a blended learning course. Internet experience gives the learners a positive power that helps them to be in control of their learning. It enables them to search the web-based materials in the course more confidently and efficiently, which helps them finish their tasks in less time. Learners with less internet experience usually show discomfort towards the online part of the blended-learning and depend more in their learning tasks on the face-to-face sessions (Lynch & Dembo, 2004).

4.5.6 Employment Status and its Relationship with Perception

The relationship between employment status and the perception dimensions is insignificant. Employed and unemployed learners have equal perception of blended learning. This may be due to that blended-learning at AOU in particular is designed for busy learners who did not have a previous chance to get a bachelor degree. On the other hand, for unemployed learners with high autonomy and with high level of interaction with other learners, the availability of time to study might be considered as a factor in forming this level of perception.

4.5.7 Relationship between Learners' Perception and Learners' Satisfaction

There is a significant moderate positive linear relationship between learners' perception and learners' satisfaction with blended learning at AOU-BH. Pearson *r* value was 0.529. Learners' with high perception show high satisfaction.

The relationship between learners' satisfaction and the interaction sub-dimensions (LI-interaction and LL-interaction) is a significant weak positive linear relationship. This is related to what Jung et al. (2002) found that learners' satisfaction with online learning environments was strongly related to the amount of active interaction with other learners. Interaction among learners increases learners' satisfaction toward online learning.

The relationship between learners' satisfaction with most perception dimensions, namely: course structure sub-dimensions (CS-content and CS-assessment), quality, and interface was a significant moderate positive linear relationship.

The relationship between learners' satisfaction with autonomy was significant but weak. This agrees with Calvin (2005) study which found that there is a significant relationship between autonomy and satisfaction with perceived learning.

Moreover, the perception dimensions, taken together, had sizeable effect on satisfaction with blended learning. However, quality of instructional methods and interface were the most important dimensions for explaining satisfaction with learning. Each one of them accounted for individual

differences in satisfaction with learning beyond what was shared with the remaining dimensions.

4.5.8 Relationships between Perception Dimensions

In terms of the internal relationships between the perception dimensions, this research found that:

The relationship between LI-interaction and LL-interaction was insignificant. Moreover an insignificant relationship was found between the LL-interaction and both CS-content and CS-assessment. This may challenge the proposal of Swan (2003) which says that instructor facilitation would support the interaction among learners and it has to be centered on content. This proposal is further challenged by results of this research which indicated that there was no relationship between learners' perception of the interface and the learner-learner sub-dimension. All this indicates that the LL-interaction is not due to planned instructional methods facilitated by the instructors, which, according to Swan (2003), can take many forms: debate, collaboration, discussion, peer review, as well as informal and incidental learning among classmates.

On the other hand, the relationships between LI-interaction and both CS-content and CS-assessment were significant positive relationships. Moreover, the relationship between the LI-interaction and the interface was a significant weak positive relationship.

Accordingly, we can compare what was found in this research with Rourke, Anderson, Garrison and Archer's 'community of inquiry' model of online learning. In AOU-BH, this model can be modified as shown in figure (4-6).

In this figure, it is clear that interaction with the course content works together with interaction with instructor. However, although peer interaction is moderately perceived by AOU-BH learners, the results of this research do not show a significant association with other sorts of interaction in the model.

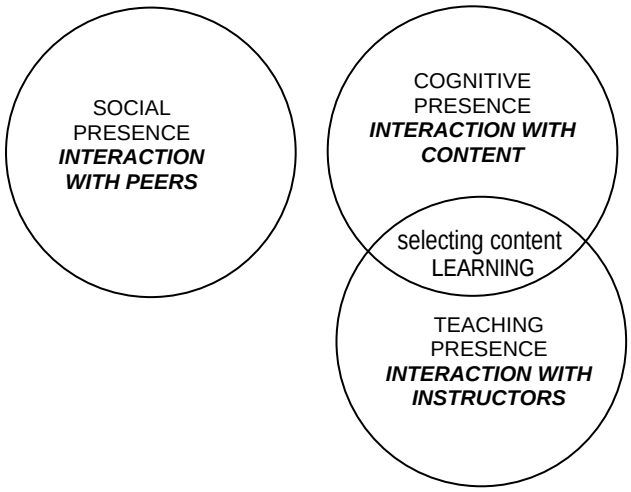

Figure (4-6)
Community of Inquiry Model at AOU-BH

The relationships between course structure sub-dimensions and the interface are moderate significant positive relationships. As stated in chapter 2, interface refers to specific technologies, platforms, applications, and course templates that learners must use to interact with course content, instructors, and classmates (Swan, 2004). The perception of learners of interface in this study supports Swan (2004) findings that the interface affects the CS-content and CS-assessment and the LI-interaction.

According to Moore's propositions, high course structure (i.e., low flexibility in the structure, low perception in course structure sub-dimensions) and low LI-interaction would result in high transactional distance while low structure (i.e., high flexibility in the structure, high

perception in course structure sub-dimensions) and high LI-interaction would result in low transactional distance. Learners in this study showed high perception of the course structure (i.e. high flexibility) and high perception of the LI-interaction. According to Moore, this decreases the transactional distance.

The relationships between the interaction sub-dimensions and the autonomy were significant weak positive relationships. The relationships between course structure sub-dimensions and the autonomy were significant weak positive relationships. Autonomy would enable learners to determine the level of course structure and interaction that best meet their individual needs (Moore & Kearsley, 2005).

The relationships between the quality and both course structure sub-dimensions and LI-interaction were significant moderate positive relationships.

The relationships between the quality and both LL-interaction sub-dimension and the interface dimension were significant weak positive relationships.

As a final note, care was taken to ensure the possibility of generalizing the sample findings to the population of undergraduate learners in AOU-BH. A random cluster sampling scheme was employed. However, as is generally the case in this research, the response rate of 46% constituted a threat to external validity. Thus, population generalizability of the findings should be accepted with caution until these findings are replicated in future studies.

Chapter 5
Conclusion and Recommendations

5.1 Conclusion

5.2 Recommendations for AOU Practice of Blended Learning

5.3 Recommendations for Future Research

Chapter 5
Conclusion and Recommendations

5.1 Conclusion

This research studied undergraduate learners' perceptions of blended learning in the AOU-BH and investigated demographic and experiential factors that may influence learners' perception. Age and gender were found to be insignificant factors in the learners' overall perception. Learners' educational level was found to be a significant factor for LL-interaction and interface. This study also examined the relationships between the perception dimensions. The relationships between LL-interaction and LI-interaction, course structure sub-dimensions, and interface, were found insignificant. Significant relationships were found between LI-interaction with course structure sub-dimensions, and with interface. The relationships between course structure sub-dimensions and the interface were significant. The relationships between autonomy with the interaction sub-dimensions and the course structure sub-dimensions were found significant. The relationships between the quality of instructional methods and course structure sub-dimensions, interaction sub-dimensions, and interface were significant. Among the perception dimensions the interface and instructional quality were found to be the most important determinations of satisfaction with blended learning.

5.2 Recommendations for AOU Practice of Blended Learning

It is recommended, based on this research, that AOU-BH takes into consideration the LL-interactions and improve the LMS to provide more flexible LL-interaction. At the same time, instructors have to plan activities

that promote this interaction. Learners can expand their knowledge through this interaction.

Looking at the CS-content perception, we found neutral perceptions of learners of this sub-dimension. It is recommended that AOU-BH review the course content and structure by doing self quality assurance to make sure that the course structure provides the essential elements that ensure its quality.

The questionnaire used in this research may be used by AOU as another tool to measure quality beside quality assurance questionnaire, as the latter does not take into consideration all aspects of blended learning.

5.3 Recommendations for Future Research

In this research, an instrument was adopted from several previous studies to measure the perception of learners in a blended learning environment.

Although the validity and reliability of the instrument was tested in the AOU-BH, it is recommended that this instrument be applied in other settings that use the blended learning model. This will help create a more holistically validated instrument.

This study is the first of its kind that was conducted in this part of the world. Thus, no benchmarks exist to which the results of this research could be compared. By conducting similar studies in blended learning environments in the region, more accurate interpretations of the results could be reached, especially in terms of perception levels and their relationship with demographic variables.

The instrument used in the research was long. This was dictated by the extensiveness of the study, covering wide aspects of blended learning. Although, on one hand, extensiveness is a positive aspect of this study, the length of the instruments might have affected the responses of some participants and forced the researcher to eliminate some extreme and incomplete responses. Future researches may concentrate on fewer dimensions and focus on specific relationships between them.

It is also recommended for future studies to combine both quantitative and qualitative methodologies for better interpretation of the results.

This research shows that AOU-BH learners have a good experience with the internet. This finding may suggest using online questionnaires for future studies.

This research measured undergraduate learners' perception with blended learning. It is good to conduct research that measure graduate learners perceptions and compare the findings here with the graduate learners' perceptions.

The quality of instructional methods has to be the focus of further researches. Researches in the distance education field in this area are still at the beginning and do not focus on adult learning. Researches in this field may help to lead the transformation from teacher centered models to learner centered models.

The perceptions of faculty members are important to be studied and to be compared with learners' perceptions.

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Appendices

Appendix 1

The Final Version of the Research Questionnaire

جامعة الخليج العربي

برامج الدراسات العليا

برنامج التعليم والتدريب عن بعد

أداة قياس

درجة إدراك المتعلمين لمكونات نظام التعلم المدمج المستخدم في الجامعة العربية المفتوحة فرع مملكة البحرين

عزيزي الطالب/ الطالبة:

لا شك أن خبرة التعلم التي تمارسها من خلال دراستك في الجامعة العربية المفتوحة مختلفة بعض الشيء عن خبرات التعلم التي مارستها في التعليم التقليدي، فالجامعة العربية المفتوحة تعتمد على نظام التعلم المدمج الذي يجمع بين التواصل الصفي بين المدرس والطلبة، والتواصل الإلكتروني عبر نظام Arab Campus E-learning System (ACES) والذي يساعدك على متابعة التعلم عن بعد.

يهدف هذا الاستبيان إلى قياس درجة إدراك المتعلمين لمكونات نظام التعلم المدمج في الجامعة العربية المفتوحة، بهدف تقويم تجربة الجامعة العربية المفتوحة و الاستفادة من إيجابيات النظام الذي يمكن تطبيقه مستقبلاً في الجامعات الأخرى، وهو في نفس الوقت جزء من دراسة تجريها الباحثة في الموضوع.

أرجو الإجابة على الأسئلة بموضوعية تامة، مع العلم أن الإجابات ستستخدم لغرض البحث العلمي، وليست لغرض تقويم أداء الطلبة أو المعلمين.

البيانات الأساسية للطالب

الرجاء إكمال البيانات التالية بملء الفراغ أو بوضع دائرة حول رقم الإجابة التي تعبر عنك:

رمز المقرر: ..... رقم الشعبة الدراسية: .....

العمر: .....

النوع: (1) ذكر (2) أنثى

الجنسية: (1) سعودي (2) بحريني (3) أخرى .....

المستوى الدراسي في الجامعة:

(1) سنة أولى (متطلبات جامعة عامة إجبارية أو اختيارية فقط)
(2) سنة ثانية
(3) سنة ثالثة
(4) سنة رابعة
(5) سنة خامسة

عدد سنوات الخبرة في العمل على الإنترنت: .....

(1) أقل من سنة.
(2) سنة واحدة إلى سنتين.
(3) ثلاث إلى خمس سنوات
(4) أكثر من خمس سنوات

هل سبق لك أن درست مقررات باستخدام التعلم الإلكتروني؟ (1) نعم (2) لا

هل سبق لك أن درست بعد الثانوية العامة ؟ (1) لا
(2) نعم خبرة جامعية سابقة.
(3) نعم خبرة دبلوم تدريبي.
(4) نعم في جامعة وخبرة دبلوم تدريبي في نفس الوقت.

هل أنت طالب متفرغ للدراسة؟ (1) طالب متفرغ (2) أدرس وأعمل

حدد رأيك حول كل بند بوضع علامة ✓ في المربع المناسب.

العبارة	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
في هذا المقرر:					
1. إذا كان لدي استفسار فإن المدرس يجد الوقت للإجابة عليه.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
2. المدرس يرد على استفساراتي بسرعة.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
3. المدرس يعطيني ملاحظات كافية حول أدائي في الواجبات.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
4. المدرس يعطيني ملاحظات كافية حول أدائي في الاختبارات.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
5. المدرس يجيب على أسئلتي بصورة وافية.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
6. المدرس يشجع مشاركتي.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
7. من السهولة الاتصال بالمدرس.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
8. المدرس يزودني بملاحظات إيجابية وسلبية حول أدائي في المقرر.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
في هذا المقرر:					
9. أعمل مع الطلبة الآخرين.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
10. أشارك الطلبة الآخرين في المصادر الخارجية.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
11. أناقش أفكاري في المقرر مع الطلبة الآخرين.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
12. أتعاون مع الطلبة الآخرين.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً

العبارة	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
13.العمل الجماعي جزء من الأنشطة التي أقوم بها.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
14.التفاعل مع الطلبة يساعدني على زيادة التعلم.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
في هذا المقرر:					
15.أتخذ قرارات تتعلق بتعلمي بنفسي.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
16.أدرس في الأوقات التي أجدها مناسبة لي.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
17.أتحكم في عملية تعلمي.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
18.ألعب دوراً مهماً في عملية تعلمي.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
19.أباشر عملية تعلمي بطريقتي الخاصة.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
20.أدير عملية تعلمي بنفسي.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
21.أحصل بنفسي على المصادر الخارجية التي تساعدني في تعلمي.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
22.أكمل واجباتي في الوقت المحدد.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً
23.أتعلم حسب سرعتي ووقتي المتاح.	☐ دائماً	☐ غالباً	☐ أحياناً	☐ نادراً	☐ أبداً

العبارة	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
في هذا المقرر:					
24.المادة التعليمية دقيقة وليس فيها أخطاء.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
25.المادة التعليمية معروضة بشكل واضح.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
26.المادة التعليمية معروضة بتنسيق موحد وثابت.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
27.المادة التعليمية مصممة بمستوى مناسب.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
28.المواد التعليمية للمقرر كافية لمساعدتي على التعلم .	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
29.خطة المقرر معروضة بشكل واضح وجيد.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
30.دليل المقرر مكتوب بشكل واضح ومنظم.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
31.دليل المقرر يوفر معلومات كافية تساعدني على عملية التعلم الذاتي.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
في هذا المقرر:					
32.الواجبات مأخوذة من تطبيقات وأمثلة واقعية من الحياة.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
33.الواجبات مرتبطة ارتباطا جيدا بمحتوى المقرر.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
34.معايير تصحيح الاختبارات واضحة.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة

العبارة	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
35.معايير تصحيح الواجبات واضحة.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
36.محتوى الاختبارات يغطي الجوانب التي تمت دراستها في المقرر.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
37.محتوى الواجبات يغطي الجوانب التي تمت دراستها في المقرر.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
38.عدد الاختبارات والواجبات المعطاة مناسب.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
في هذا المقرر:					
39.الأمثلة التي أعمل عليها في هذا المقرر أمثلة مستمدة من تطبيقات واقعية.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
40.في هذا المقرر أكتشف طرقي الخاصة للتعلم.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
41.أحدد الجوانب غير الواضحة لي في هذا المقرر وأحل هذه المشكلات بنفسي.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
42.هذا المقرر يحثني على حل المشكلات واتخاذ القرارات.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
43.هذا المقرر يزيد من قدرتي على التفكير بصورة منطقية.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
44.هذا المقرر يشجعني على تطوير ذاتي كعضو في فريق.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
45.هذا المقرر يحسن مهاراتي في المناقشة والتفاعل.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
46.هذا المقرر يجعلني أشعر أنني متفاعل ومتواصل بشكل أكبر مع بقية المجموعة.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة

العبارة	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
47.هذا المقرر يعطيني الفرصة لربط خبرتي الشخصية بما أدرسه في المادة.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
48.هذا المقرر يزيد من قدرتي على التفكير الناقد.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
في هذا المقرر:					
49.أستطيع الوصول إلى المادة التعليمية في ACES أي وقت.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
50.أستطيع المشاركة بصورة فعالة في عملية التعلم من خلال برنامج ACES.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
51.واجهة برنامج ACES مرضية وسهلة الاستخدام.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
52.برنامج ACES يمكنني من التفاعل مع المعلم.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
53.برنامج ACES يمكنني من التفاعل مع زملائي في المقرر.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
54.برنامج ACES يمكنني من التفاعل مع المادة العلمية.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
55.واجهة وأدوات برنامجACES مرتبة بشكل منظم.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
56.برنامج ACES يزيد من اهتمامي بالتعلم.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
57.برنامج ACES يوفر بيئة تعلم جيدة.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
58.احصل على الدعم الفني بسهولة في أي إشكالية تواجهني عند العمل على برنامج ACES.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة

العبارة	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
العبارات التالية تتعلق بمدى رضاك عن التعلم المدمج.					
59.التعلم المدمج طريقة محفزة للتعلم.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
60.أفضل التعلم المدمج على التعلم التقليدي.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
61.التعلم المدمج عملية مثيرة.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
62.التعلم المدمج يستحق الوقت الذي أقضيه فيه.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
63.أستمتع بالتعلم المدمج.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
64.أتطلع إلى الدراسة باستخدام التعلم المدمج مستقبلاً.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
65.سأستمتع بتعلمي أكثر لو كانت دراسة جميع المقررات تتم باستخدام التعلم المدمج.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة
66.أشعر بالرضا عند دراسة هذا المقرر بطريقة التعلم المدمج.	❐ موافق بشدة	❐ موافق	❐ لا أدري	❐ غير موافق	❐ غير موافق بشدة

مع خالص شكري لك على المشاركة،،،،

Appendix 2

Scott Walker's Permission

DELES Permission Letter

Samya Ali Juma Shehab has been granted permission to use the Distance Education Learning Environments Survey (DELES) for the purpose of conducting a study with the working title of UNDERGRADUATE LEARNERS' PERCEPTIONS OF BLENDED LEARNING & ITS RELATIONSHIP WITH SOME DEMOGRAPHIC VARIABLES AT THE ARAB OPEN UNIVERSITY with the following usage rights being granted.

☒ One time worldwide rights for hard copy distribution of the Preferred, Actual, and Instructor forms of the DELES in English and/or Arabic as translated by Samya Ali Juma Shehab.

☐ ~~One time U.S. rights for e-mail distribution of the Preferred, Actual, and Instructor forms of the DELES~~

☐ ~~One time worldwide rights for e-mail distribution of the Preferred, Actual, and Instructor forms of the DELES~~

☐ ~~One time U.S. rights for Web posting of the Preferred, Actual, and Instructor forms of the DELES to be removed from the Web after date~~

☐ ~~One time worldwide rights for Web posting of the Preferred, Actual, and Instructor forms of the DELES to be removed from the Web after date~~

Scott L. Walker, ScEdD

June 16, 2006
Date

Appendix 3

Panel Experts Questionnaire

Investigating content validity of an instrument to measure

UNDERGRADUATE LEARNERS' PERCEPTIONS OF BLENDED LEARNING & ITS RELATIONSHIP WITH SOME DEMOGRAPHIC AND EXPERIENTIAL VARIABLES AT THE ARAB OPEN UNIVERSITY- BAHRAIN BRANCH

***Instructions**:*

Dear Panel Experts,

For each Item, kindly give a mark from 1 to 5 in each of the columns Relevance and clarity. Note that 5 indicates high clarity, appropriateness or relevance, while 1 indicates low level of these attributes.

In addition, please rank the items within each dimension by giving 1 to the most relevant item, 2 to the second most relevant, and so on.

Please note that:

Clarity:	Identify the clarity of each item to the reader. تحديد مدى وضوح كل بند وسهولة فهم القارئ له.
Relevance:	Identify the appropriateness of each item as an indicator of its dimension. تحديد مدى ملائمة كل بند من بنود الاستبانة للبعد الذي ينتمي له.
Rank:	Rank the items within each dimension according to its Relevance in order to reduce the number of items in the questionnaire. ترتيب البنود في كل بعد وفق علاقته بالبعد وذلك لتقليل عدد البنود الموجودة في الاستبانة.

PERCEPTION DIMENSION 1:

INTERACTION: the two-way communication between the learner and the instructor and among learners, which can take the form of asynchronous and/or synchronous conversation (Huang, 2002; Chen & Willits, 1999).

COMPONENTS:

- Learner to Instructor interaction: Providing learners with motivation feedback and support.(Huang,2002)
- Learner to Learner interaction: Exchange of information, ideas and interaction that occurs between learners with or without the presence of an instructor. (Huang, 2002).

Dimension	Items - Source	Arabic Items	Clarity	Relevance	Rank according to Relevance
1- Learner to Instructor interaction	**In this class…**	**في هذا المقرر:**			
	1. If I have an inquiry, the instructor finds time to respond. – Walker, Item # 1	1. إذا كان لدي استفسار فإن المدرس يجد الوقت للإجابة عليه.			
	2. The instructor helps me identify problem areas in my study. – Walker, Item # 2	2. المدرس يساعدني في تحديد الجوانب الصعبة التي تواجهني في دراستي.			
	3. The instructor responds promptly to my questions. – Walker, Item # 3	3. المدرس يرد بسرعة على استفساراتي.			
	4. The instructor gives me valuable feedback on my assignments. – Walker, Item # 4	4. المدرس يعطيني ملاحظات كافية حول أدائي في الواجبات والاختبارات.			

Dimension	Items - Source	Arabic Items	Clarity	Relevance	Rank according to Relevance
	5. The instructor adequately addresses my questions. – Walker, Item # 5	5. المدرس يتناول أسئلتي بصورة وافية.			
	6. The instructor encourages my participation. – Walker, Item # 6	6. المدرس يشجع مشاركتي.			
	7. It is easy to contact the instructor. – Walker, Item # 7	7. من السهولة الاتصال بالمدرس.			
	8. The instructor provides me positive and negative feedback on my work. – Walker, Item # 8	8. المدرس يزودني بملاحظات إيجابية وسلبية حول أدائي.			
2 - Learner to Learner interaction	**In this class…**	**في هذا المقرر:**			
	9. I work with others. – Walker, Item # 9	9. أعمل مع الطلبة الآخرين.			
	10. I relate my work to other's work. – Walker, Item # 10	10. أقيم علاقة بين عملي وعمل الطلبة الآخرين.			
	11. I share information with other students. – Walker, Item # 11	11. أشارك الطلبة الآخرين في المعلومات.			
	12. I discuss my ideas with other students. – Walker, Item # 12	12. أناقش أفكاري في المقرر مع الطلبة الآخرين.			
	13. I collaborate with other students in the class. – Walker, Item # 13	13. أتعاون مع الطلبة الآخرين.			
	14. Group work is a part of my activities. – Walker, Item # 14	14. العمل الجماعي جزء من الأنشطة التي أقوم بها.			

Dimension	Items - Source	Arabic Items	Clarity	Relevance	Rank according to Relevance
	15. Interacting with others helps me learn more. – Huang, Item # 6	15. التفاعل مع الطلبة يساعدني على زيادة التعلم.			

PERCEPTION DIMENSION 2:

LAERNER AUTONOMY: Learners responsibility for the conduct of their learning. (Huang,2002).

COMPONENTS: ONE COMPONENT

Dimension	Items - Source	Arabic Items	Clarity	Relevance	Rank according to relevance
Learner Autonomy	**In this class…**	**في هذا المقرر:**			
	16. I make decisions about my learning. – Walker, Item # 30	16. أتخذ قرارات تتعلق بتعلمي.			
	17. I work during times I find convenient. – Walker, Item # 31	17. أعمل في الأوقات التي أجدها مناسبة لي.			
	18. I am in control of my learning. – Walker, Item # 32	18. أتحكم في عملية تعلمي.			
	19. I play an important role in my learning. – Walker, Item # 33	19. ألعب دوراً مهماً في عملية تعلمي.			
	20. I approach learning in my own way. – Walker, Item # 34	20. أباشر عملية تعلمي بطريقتي الخاصة.			
	21. I am able to direct my own learning. – Huang, Item # 16	21. أستطيع أن أوجه تعلمي بنفسي.			
	22. I am able to find library resources for my study. – Huang, Item # 17	22. أستطيع الحصول على مصادرالمكتبة التي تساعدني في تعلمي.			
	23. I am able to complete assignments on time. – Huang, Item # 18	23. أستطيع إكمال واجباتي في الوقت المحدد.			

Dimension	Items - Source	Arabic Items	Clarity	Relevance	Rank according to relevance
	24. I like to learn at my own pace. – Huang, Item # 19	24. أحب أن أتعلم حسب سرعتي ووقتي المتاح.			

PERCEPTION DIMENSION 3:

COURSE STRUCTURE: refers to the course organization and course delivery within the Learning Management System (Moore & Kearsley, 2005)

COMPONENTS:

1- Course Content and design**.**

2- Course Assessment**.**

Dimension	Items - Source	Arabic Items	Clarity	Relevance	Rank according to relevance
1- Course Content and design	**In this class…**	**في هذا المقرر:**			
	25. Course materials were relevant for me. – Laanpere , Item # 1.1.1	25. المادة التعليمية ملائمة لاحتياجاتي (في العمل، المقررات الأخرى، حياتي، ...).			
	26. Course materials were accurate, containing no mistakes. – Laanpere , Item # 1.1.2	26. المادة التعليمية دقيقة وليس فيها أخطاء.			
	27. Course materials were clearly presented. – Laanpere , Item # 1.1.3	27. المادة التعليمية معروضة بشكل واضح.			
	28. Course materials were designed in a consistent style. – Laanpere , Item # 1.1.4	28. المادة التعليمية معروضة بتنسيق موحد وثابت.			
	29. Course materials were designed at an appropriate level. – Laanpere , Item # 1.1.5	29. المادة التعليمية مصممة بمستوى مناسب.			
	30. Course materials meet my needs. – Huang, Item # 15	30. . مواد المقرر تفي باحتياجاتي			

Dimension	Items - Source	Arabic Items	Clarity	Relevance	Rank according to relevance
	31. Course syllabus is well presented. – Huang, Item # 10	31. خطة المقرر معروضة بشكل واضح وجيد.			
	32. Course guides were clearly written and structured. – Laanpere, Item # 1.4.1	32. دليل المقرر مكتوب بشكل واضح ومنظم.			
	33. Course guides provided enough support for independent learning. – Laanpere, Item # 1.4.2	33. دليل المقرر وفر معلومات كافية تساعد على عملية التعلم الذاتي.			
2- Course Assessment	**In this Class…**	**في هذا المقرر:**			
	34. Assignments were authentic and close to real life. – Laanpere, Item # 1.2.1	34. الواجبات مأخوذة من تطبيقات حقيقية من الحياة.			
	35. The complexity of the assignments was appropriate. – Laanpere, Item # 1.2.2	35. درجة صعوبة الواجبات مناسبة.			
	36. Assignments matched the content of the course well. – Laanpere, Item # 1.2.3	36. الواجبات مرتبطة ارتباطا جيدا بمحتوى المقرر.			
	37. Grading criteria are clear. – Huang, Item # 12	37. معايير تصحيح الواجبات والاختبارات واضحة.			
	38. The assessment covered all the aspects, taught during the course. – Laanpere, Item # 1.3.2	38. الاختبارات والواجبات غطت الجوانب التي تم تدريسها في المقرر.			
	39. There was enough assessment during the course. – Laanpere , Item # 1.3.1	39. عدد الاختبارات والواجبات كاف.			

PERCEPTION DIMENSION 4:

QUALITY OF INSTRUCTIONAL METHODS: the extent to which the pedagogy for adult learning was considered (Koohang & Durante, 2003).

1- Promotion of Authentic Learning: Inclusion of real-world and real-work problems that complement the learning content. (Koohang & Durante, 2003).

2- Promotion of Active Learning: Encouragement of decision-making, problem-solving, evaluating viewpoints and critical thinking. (Koohang & Durante, 2003).

Dimension	Items - Source	Arabic Items	Clarity	Relevance	Rank according to relevance
1- Authentic Learning.	**In this class…**	**في هذا المقرر:**			
	40. I study real cases related to the class. – Walker, Item # 22	40. أدرس نماذج (حالات) واقعية أو حقيقية تتعلق بالمقرر.			
	41. I use real facts in class activities. – Walker, Item # 23	41. أستخدم حقائق وتطبيقات واقعية في الأنشطة الصفية.			
	42. I work on assignments that deal with real-world information. – Walker, Item # 24	42. واجبات المقرر تتعامل مع معلومات مستمدة من تطبيقات واقعية.			
	43. I work with real examples. – Walker, Item # 25	43. الأمثلة التي أعمل عليها في المقرر أمثلة مستمدة من تطبيقات واقعية.			

Dimension	Items - Source	Arabic Items	Clarity	Relevance	Rank according to relevance
	44. Make me understand the importance of learning from sharing real-world experience. – Koohang, Item # 2	44. يجعلني أدرك أهمية التعلم من خلال مشاركة الآخرين في عرض خبرات حقيقية.			
2- Active learning.	**In this class…**	**في هذا المقرر:**			
	45. I explore my own strategies for learning. – Walker, Item # 27	45. أكتشف طرقي الخاصة للتعلم في المقرر.			
	46. I seek my own answers. – Walker, Item # 28	46. أبحث عن إجاباتي الشخصية خلال تعلمي.			
	47. I solve my own problems. – Walker, Item # 29	47. أحدد الجوانب غير الواضحة لي وأحل هذه المشكلات بنفسي.			
	This class…	**هذا المقرر:**			
	48. Contribute positively to my learning. – Koohang Item # 1	48. يساهم بصورة إيجابية في عملية تعلمي.			
	49. Enhanced my ability to understand and evaluate viewpoints. – Koohang Item # 2	49. يزيد من قدرتي على فهم وتقويم وجهات النظر المختلفة.			

Dimension	Items - Source	Arabic Items	Clarity	Relevance	Rank according to relevance
	50. Encourage my decision making and problem solving. – Koohang Item # 3	50. يحثني على حل المشكلات واتخاذ القرارات.			
	51. Enhanced my ability to think logically. – Koohang Item # 4	51. يزيد من قدرتي على التفكير بصورة منطقية.			
	52. Encourage me to develop myself as a team member. – Koohang Item # 5	52. يشجعني على تطوير ذاتي كعضو في فريق.			
	53. Sharpen my discussion/interaction skills. – Koohang Item # 6	53. يحسن مهاراتي في المناقشة والتفاعل.			
	54. Make me feel more involved with the class. – Koohang Item # 7	54. يجعلني أشعر أنني متفاعل ومتواصل بشكل أكبر مع بقية المجموعة.			
	55. Give me the opportunity to relate my own experience to the topic covered in the course. – Koohang Item # 8	55. يعطيني الفرصة لربط خبرتي الشخصية بما أدرسه في المادة.			
	56. Enhanced my ability to think critically. – Koohang Item # 9	56. يزيد من قدرتي على التفكير الناقد.			

PERCEPTION DIMENSION 5:

COURSE INTERFACE: refers to online computer-mediated communication using a learning management system (Huang, 2002).

COMPONENTS: One Component

Dimension	Items - Source	Arabic Items	Clarity	Relevance	Rank according to relevance
Course Interface	**In this class…**	**في هذا المقرر:**			
	57. I am able to access course materials at any time. Huang, Item #13*	57. أستطيع الوصول إلى المادة التعليمية في أي وقت.			
	58. I can actively participate in the learning process. Huang, Item #14*	58. أستطيع المشاركة بصورة فعالة في عملية التعلم من خلال برنامجACES.			
	59. The ACES interface is pleasant and easy to use. – Laanpere , Item # 1.3.1*	59. واجهة برنامج ACES مرضية وسهلة الاستخدام.			
	60. ACES interface in this course is efficient for interactive learning. - Huang, Item #23*.	60. تمكنني من التفاعل مع زملائي واجهة برنامجACES والمادة والمعلم بغير جهد كبير.			
	61. ACES interface and tools are well-structured. – Huang, Item # 24*	61. واجهة وأدوات برنامجACES مرتبة بشكل منظم.			
	62. ACES enhance my interest in learning. – Huang, Item # 25*	62. برنامجACES يزيد من اهتمامي بالتعلم.			

Dimension	Items - Source	Arabic Items	Clarity	Relevance	Rank according to relevance
	63. ACES provides a good learning environment. – Huang, Item # 26*	63. برنامجACES يوفر بيئة تعلم جيدة.			
	64. I am able to access technical support easily. – Huang, Item # 27*	64. أستطيع الحصول على الدعم الفني بسهولة في أي إشكالية تواجهني عند العمل على برنامجACES.			

- These items were adopted with modification to be relative to AOU-Bahrain Branch LMS (ACES).

LEARNERS' SATISFACTION:

- The study aims also to investigate learners' general satisfaction with Blended learning**.**

Dimension	Items - Source	Arabic Items	Clear	Relevance	Rank according to relevance
Satisfaction	**The following items refer to your satisfaction with distance education.**	**العبارات التالية تتعلق بمدى رضاك عن التعلم المدمج.**			
	65. Blended learning is stimulating.	65. التعلم المدمج طريقة محفزة للتعلم.			
	66. I prefer Blended learning.	66. أفضل التعلم المدمج.			
	67. Blended learning is exciting.	67. التعلم المدمج عملية مثيرة.			
	68. Blended learning is worth my time.	68. التعلم المدمج يستحق الوقت الذي أقضيه فيه.			
	69. I enjoy studying using Blended learning.	69. أستمتع بالتعلم المدمج.			
	70. I look forward to studying using Blended learning in the future.	70. أتطلع إلى الدراسة باستخدام التعلم المدمج مستقبلاً.			
	71. I would enjoy my learning more if all my classes were blended.	71. سأستمتع بتعلمي أكثر لو كانت دراسة جميع المقررات تتم باستخدام التعلم المدمج.			
	72. I am satisfied with this class.	72. أشعر بالرضا عند دراسة هذا المقرر.			

* These items were adopted from Walker study with modification so that it focuses on Blended learning.

Please identify the extent to which the instrument covers the whole domain of factors it is intending to address.

الرجاء تحديد إلى أي مدى تستطيع هذه الاستبانة بصورة عامة تغطية جميع العوامل التي تسعى إلى قياسها.

Please give your expert opinion on the format of the questionnaire.

الرجاء إبداء رأيكم حسب خبرتكم في شكل الاستبانة وتنسيقها.

Appendix 4

The First Version of the Research Questionnaire

جامعة الخليج العربي
برامج الدراسات العليا
برنامج التعليم والتدريب عن بعد

أداة قياس
درجة إدراك المتعلمين لمكونات نظام التعلم المدمج المستخدم في الجامعة العربية المفتوحة فرع مملكة البحرين

عزيزي الطالب/ الطالبة:

لا شك أن خبرة التعلم التي تمارسها من خلال دراستك في الجامعة العربية المفتوحة مختلفة بعض الشيء عن خبرات التعلم التي مارستها في التعليم التقليدي، فالجامعة العربية المفتوحة تعتمد على نظام التعلم المدمج الذي يجمع بين التواصل الصفي مع المدرس والطلبة، والتواصل الإلكتروني عبر نظام Arab Campus E-learning System (ACES) والذي يمثل بيئة تعلم افتراضية تساعدك على متابعة التعلم عن بعد.

يهدف هذا الاستبيان إلى قياس درجة إدراك المتعلمين لمكونات نظام التعلم المدمج في الجامعة العربية المفتوحة، بهدف تقويم تجربة الجامعة العربية المفتوحة و الاستفادة من إيجابيات النظام الذي يمكن تطبيقه مستقبلاً في الجامعات الأخرى، وهو في نفس الوقت جزء من دراسة تجريها الباحثة في الموضوع.

أرجو الإجابة على الأسئلة بموضوعية تامة، مع العلم أن الإجابات ستستخدم لغرض البحث العلمي، وليست لغرض تقويم أداء الطلبة أو المعلمين.

البيانات الأساسية للطالب

الرجاء إكمال البيانات التالية بملء الفراغ أو بوضع دائرة حول رقم الإجابة التي تعبر عنك :

رمز المقرر: ..... رقم الشعبة الدراسية: .....

الاسم (اختياري):.....

العمر: .....

الجنس: (1) ذكر (2) أنثى

المستوى الدراسي:

(1) المستوى الأول (متطلبات جامعة عامة إجبارية أو اختيارية فقط)

(2) المستوى الثاني

(3) المستوى الثالث

(4) المستوى الرابع

عدد سنوات الخبرة في العمل على الإنترنت:

(1) أقل من سنة.

(2) سنة واحدة إلى سنتين.

(3) ثلاث إلى خمس سنوات

(4) أكثر من خمس سنوات

هل سبق لك أن درست مقررات باستخدام التعلم الإلكتروني؟ (1) نعم (2) لا

هل سبق لك أن درست بعد الثانوية العامة ؟ (1) نعم (2) لا

إذا كانت الإجابة بنعم: (1) خبرة جامعية سابقة (2) خبرة دبلوم تدريبي

هل أنت طالب متفرغ للدراسة؟ (1) طالب متفرغ (2) أدرس وأعمل

حدد رأيك حول كل بند بوضع علامة ✓ في المربع المناسب.

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
في هذا المقرر:					
1. إذا كان لدي استفسار فإن المدرس يجد الوقت للإجابة عليه.					
2. المدرس يساعدني في تحديد الجوانب الصعبة التي تواجهني في دراستي.					
3. المدرس يرد بسرعة على استفساراتي.					
4. المدرس يعطيني ملاحظات كافية حول أدائي في الواجبات والاختبارات.					
5. المدرس يتناول أسئلتي بصورة واضحة.					
6. المدرس يشجع مشاركتي.					
7. من السهولة الاتصال بالمدرس.					
8. المدرس يزودني بملاحظات إيجابية وسلبية حول أدائي.					
في هذا المقرر:					
9. أعمل مع الطلبة الآخرين.					
10. أقيم علاقة بين عملي وعمل الطلبة الآخرين.					
11. أشارك الطلبة الآخرين في المعلومات.					
12. أناقش أفكاري في المقرر مع الطلبة الآخرين.					

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
13.أتعاون مع الطلبة الآخرين.					
14.العمل الجماعي جزء من الأنشطة التي أقوم بها.					
15.التفاعل مع الطلبة يساعدني على زيادة التعلم.					
في هذا المقرر:					
16.أتخذ قرارات تتعلق بتعلمي.					
17.أعمل في الأوقات التي أجدها مناسبة لي.					
18.أتحكم في عملية تعلمي.					
19.ألعب دوراً مهماً في عملية تعلمي.					
20.أباشر عملية تعلمي بطريقتي الخاصة.					
21.أستطيع أن أوجه تعلمي بنفسي.					
22.أستطيع الحصول على مصادر المكتبة التي تساعدني في تعلمي.					
23.أستطيع إكمال واجباتي في الوقت المحدد.					
24.أحب أن أتعلم حسب سرعتي ووقتي المتاح.					
في هذا المقرر:					
25.المادة التعليمية ملائمة لاحتياجاتي (في العمل، المقررات الأخرى، حياتي، ...).					
26.المادة التعليمية دقيقة وليس فيها أخطاء.					

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
27.المادة التعليمية معروضة بشكل واضح.					
28.المادة التعليمية معروضة بتنسيق موحد وثابت.					
29.المادة التعليمية مصممة بمستوى مناسب.					
30.مواد المقرر تفي باحتياجاتي .					
31.خطة المقرر معروضة بشكل واضح وجيد.					
32.دليل المقرر مكتوب بشكل واضح ومنظم.					
33.دليل المقرر وفر معلومات كافية تساعد على عملية التعلم الذاتي.					
في هذا المقرر:					
34.الواجبات مأخوذة من تطبيقات حقيقية من الحياة.					
35.درجة صعوبة الواجبات مناسبة.					
36.الواجبات مرتبطة إرتباطا جيدا بمحتوى المقرر.					
37.معايير تصحيح الواجبات والاختبارات واضحة.					
38.الاختبارات والواجبات غطت الجوانب التي تم تدريسها في المقرر.					
39.عدد الاختبارات والواجبات كاف.					
في هذا المقرر:					
40.أدرس نماذج (حالات) واقعية أو حقيقية تتعلق بالمقرر.					
41.أستخدم حقائق وتطبيقات واقعية في الأنشطة الصفية.					
42.واجبات المقرر تتعامل مع معلومات مستمدة من تطبيقات واقعية.					

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
43.الأمثلة التي أعمل عليها في المقرر أمثلة مستمدة من تطبيقات واقعية.					
44.يجعلني أدرك أهمية التعلم من خلال مشاركة الآخرين في عرض خبرات حقيقية.					
في هذا المقرر:					
45.أكتشف طرقي الخاصة للتعلم في المقرر.					
46.أبحث عن إجاباتي الشخصية خلال تعلمي.					
47.أحدد الجوانب غير الواضحة لي وأحل هذه المشكلات بنفسي.					
هذا المقرر:					
48.يساهم بصورة إيجابية في عملية تعلمي.					
49.يزيد من قدرتي على فهم وتقويم وجهات النظر المختلفة.					
50.يحثني على حل المشكلات واتخاذ القرارات.					
51.يزيد من قدرتي على التفكير بصورة منطقية.					
52.يشجعني على تطوير ذاتي كعضو في فريق.					
53.يحسن مهاراتي في المناقشة والتفاعل.					
54.يجعلني أشعر أنني متفاعل ومتواصل بشكل أكبر مع بقية المجموعة.					
55.يعطيني الفرصة لربط خبرتي الشخصية بما أدرسه في المادة.					
56.يزيد من قدرتي على التفكير الناقد.					
في هذا المقرر:					
57.أستطيع الوصول إلى المادة التعليمية في أي وقت.					
58.أستطيع المشاركة بصورة فعالة في عملية التعلم من خلال					

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
برنامج ACES.					
59.واجهة برنامج ACES مرضية وسهلة الاستخدام.					
60.واجهة برنامج ACES تمكنني من التفاعل مع زملائي والمادة والمعلم بغير جهد كبير.					
61.واجهة وأدوات برنامج ACES مرتبة بشكل منظم.					
62.برنامج ACES يزيد من اهتمامي بالتعلم.					
63.برنامج ACES يوفر بيئة تعلم جيدة.					
64.أستطيع الحصول على الدعم الفني بسهولة في أي إشكالية تواجهني عند العمل على برنامج ACES.					
العبارات التالية تتعلق بهدى رضاك عن التعلم المدمج.					
65.التعلم المدمج طريقة محفزة للتعلم.					
66.أفضل التعلم المدمج.					
67.التعلم المدمج عملية مثيرة.					
68.التعلم المدمج يستحق الوقت الذي أقضيه فيه.					
69.أستمتع بالتعلم المدمج.					
70.أتطلع إلى الدراسة باستخدام التعلم المدمج مستقبلاً.					
71.سأستمتع بتعلمي أكثر لو كانت دراسة جميع المقررات تتم باستخدام التعلم المدمج.					
72.أشعر بالرضا عند دراسة هذا المقرر.					

Appendix 5

Panel Experts List

Selected Panel Experts:

1- Prof. Patrick J. Fahy, Centre for Distance Education, Athabasca University
2- Prof. Terry Anderson, Editor, International Review of Research on Open and Distance Learning, Professor and Canada Research Chair in Distance Education, Athabasca University
3- Dr. Khalid Ahmed Bugahoos, Head of E-Learning Center, University of Bahrain.
4- Dr. Mueen Al Jamlan, Education College, University of Bahrain.
5- Dr. Alan Fell, School of Computing & Technology, University of Sunderland.
6- Dr. Judith Kuit, Academic Development Coordinator, University of Sunderland.
7- Dr. Fathi Elloumi, School of Business, Athabasca University.

Participating Experts:

1- Dr. Khalid Ahmed Bugahoos, Head of E-Learning Center, University of Bahrain.
2- Dr. Alan Fell, School of Computing & Technology, University of Sunderland.
3- Dr. Judith Kuit, Academic Development Coordinator, University of Sunderland.

Appendix 6

Sample of Panel Experts Letter

Date: 17th August, 2006.

Dear Dr. Khalid Bugahoos,

Thank you very much for accepting to be one of the panel experts who will evaluate the content validity of the instrument that I will be using in my Master research on the topic 'Undergraduate Learners' perceptions of blended learning & its relationship with some demographic and experiential variables at the AOU-BH'.

I am enclosing the content validity evaluation sheet.

The purpose of investigating content validity is to:

1- Identify the extent to which the instrument covers the whole domain of factors it is intending to address.

2- Get experts' feedback on the format of the questionnaire.

3- Identify the clarity of each item to the reader.

4- Identify the appropriateness of each item as an indicator of its dimension.

5- Rank the items of each dimension according to the relevance in order to reduce the number of items in the questionnaire.

These can be achieved by filling the content validity sheet. Instructions are clarified in first page.

I will be very pleased if I can get your feedback before the end of August at which time I have to administer a pilot study.

Thank you again for your help and I look forward to get your valuable feedback soon.

Yours Sincerely,

Samya Ali Juma

Master student at

Appendix 7

The Second Version of the Research Questionnaire

جامعة الخليج العربي

برامج الدراسات العليا

برنامج التعليم والتدريب عن بعد

أداة قياس

درجة إدراك المتعلمين لمكونات نظام التعلم المدمج

المستخدم في الجامعة العربية المفتوحة

فرع مملكة البحرين

عزيزي الطالب/ الطالبة:

لا شك أن خبرة التعلم التي تمارسها من خلال دراستك في الجامعة العربية المفتوحة مختلفة بعض الشيء عن خبرات التعلم التي مارستها في التعليم التقليدي، فالجامعة العربية المفتوحة تعتمد على نظام التعلم المدمج الذي يجمع بين التواصل الصفي مع المدرس والطلبة، والتواصل الإلكتروني عبر نظام **Arab Campus E-learning System (ACES)** والذي يمثل بيئة تعلم افتراضية تساعدك على متابعة التعلم عن بعد.

يهدف هذا الاستبيان إلى قياس درجة إدراك المتعلمين لمكونات نظام التعلم المدمج في الجامعة العربية المفتوحة، بهدف تقويم تجربة الجامعة العربية المفتوحة و الاستفادة من إيجابيات النظام الذي يمكن تطبيقه مستقبلاً في الجامعات الأخرى، وهو في نفس الوقت جزء من دراسة تجريها الباحثة في الموضوع.

أرجو الإجابة على الأسئلة بموضوعية تامة، مع العلم أن الإجابات ستستخدم لغرض البحث العلمي، وليست لغرض تقويم أداء الطلبة أو المعلمين.

البيانات الأساسية للطالب

الرجاء إكمال البيانات التالية بملء الفراغ أو بوضع دائرة حول رقم الإجابة التي تعبر عنك:

رمز المقرر: ..... رقم الشعبة الدراسية: .....

الاسم (اختياري):.....

العمر: .....

النوع: (1) ذكر (2) أنثى

الجنسية: (1) سعودي (2) بحريني (3) أخرى .....

المستوى الدراسي في الجامعة:

(1) سنة أولى (متطلبات جامعة عامة إجبارية أو اختيارية فقط)
(2) سنة ثانية
(3) سنة ثالثة
(4) سنة رابعة
(5) سنة خامسة

عدد سنوات الخبرة في العمل على الإنترنت:

(1) أقل من سنة.
(2) سنة واحدة إلى سنتين.
(3) ثلاث إلى خمس سنوات
(4) أكثر من خمس سنوات

هل سبق لك أن درست مقررات باستخدام التعلم الإلكتروني؟ (1) نعم (2) لا

هل سبق لك أن درست بعد الثانوية العامة ؟ (1) نعم (2) لا

إذا كانت الإجابة بنعم: (1) خبرة جامعية سابقة (2) خبرة دبلوم تدريبي

هل أنت طالب متفرغ للدراسة؟ (1) طالب متفرغ (2) أدرس وأعمل

حدد رأيك حول كل بند بوضع علامة ✓ في المربع المناسب.

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
في هذا المقرر:					
1. إذا كان لدي استفسار فإن المدرس يجد الوقت للإجابة عليه.					
2. المدرس يرد على استفساراتي بسرعة.					
3. المدرس يعطيني ملاحظات كافية حول أدائي في الواجبات.					
4. المدرس يعطيني ملاحظات كافية حول أدائي في الاختبارات.					
5. المدرس يجيب على أسئلتي بصورة وافية.					
6. المدرس يشجع مشاركتي.					
7. من السهولة الاتصال بالمدرس.					
8. المدرس يزودني بملاحظات إيجابية وسلبية حول أدائي في المقرر.					

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
في هذا المقرر:					
9. أعمل مع الطلبة الآخرين.					
10. أشارك الطلبة الآخرين في المصادر الخارجية.					
11. أناقش أفكاري في المقرر مع الطلبة الآخرين.					
12. أتعاون مع الطلبة الآخرين.					
13. العمل الجماعي جزء من الأنشطة التي أقوم بها.					
14.التفاعل مع الطلبة يساعدني على زيادة التعلم.					
في هذا المقرر:					
15. أتخذ قرارات تتعلق بتعلمي بنفسي.					
16. أدرس في الأوقات التي أجدها مناسبة لي.					
17. أتحكم في عملية تعلمي.					

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
18. ألعب دوراً مهماً في عملية تعلمي.					
19. أباشر عملية تعلمي بطريقتي الخاصة.					
20. أستطيع أن أدير عملية تعلمي بنفسي.					
21. أستطيع الحصول على المصادر الخارجية التي تساعدني في تعلمي.					
22. أستطيع إكمال واجباتي في الوقت المحدد.					
23. أحب أن أتعلم حسب سرعتي ووقتي المتاح.					
في هذا المقرر:					
24. يمكنني الاستفادة من المادة العلمية في حياتي أو في العمل أو في المقررات الأخرى.					
25. المادة التعليمية دقيقة وليس فيها أخطاء.					
26. المادة التعليمية معروضة بشكل واضح.					
27. المادة التعليمية معروضة بتنسيق موحد وثابت.					

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
28. المادة التعليمية مصممة بمستوى مناسب.					
29. المواد التعليمية للمقرر كافية لمساعدتي على التعلم .					
30. خطة المقرر معروضة بشكل واضح وجيد.					
31. دليل المقرر مكتوب بشكل واضح ومنظم.					
32. دليل المقرر يوفر معلومات كافية تساعد على عملية التعلم الذاتي.					
في هذا المقرر:					
33. الواجبات مأخوذة من تطبيقات حقيقية من الحياة.					
34.الواجبات مرتبطة ارتباطا جيدا بمحتوى المقرر.					
35.معايير تصحيح الاختبارات واضحة.					
36.معايير تصحيح الواجبات واضحة.					
37.محتوى الاختبارات يغطي الجوانب التي تمت دراستها في المقرر.					

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
38. محتوى الواجبات يغطي الجوانب التي تمت دراستها في المقرر.					
39. عدد الاختبارات والواجبات المعطاة كاف.					
هذا المقرر:					
40. الأمثلة التي أعمل عليها في هذا المقرر أمثلة مستمدة من تطبيقات واقعية.					
41. في هذا المقرر أكتشف طرقي الخاصة للتعلم.					
42. أحدد الجوانب غير الواضحة لي في هذا المقرر وأحل هذه المشكلات بنفسي.					
43. هذا المقرر يحثني على حل المشكلات واتخاذ القرارات.					
44. هذا المقرر يزيد من قدرتي على التفكير بصورة منطقية.					
45. هذا المقرر يشجعني على تطوير ذاتي كعضو في فريق.					
46. هذا المقرر يحسن مهاراتي في المناقشة والتفاعل.					
47. هذا المقرر يجعلني أشعر أنني متفاعل ومتواصل بشكل أكبر مع بقية المجموعة.					

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
48.هذا المقرر يعطيني الفرصة لربط خبرتي الشخصية بما أدرسه في المادة.					
49.هذا المقرر يزيد من قدرتي على التفكير الناقد.					
في هذا المقرر:					
50. أستطيع الوصول إلى المادة التعليمية في ACES أي وقت.					
51. أستطيع المشاركة بصورة فعالة في عملية التعلم من خلال برنامج ACES.					
52. واجهة برنامج ACES مرضية وسهلة الاستخدام.					
53. واجهة برنامج ACES تمكنني من التفاعل مع المعلم					
54. واجهة برنامج ACES تمكنني من التفاعل مع زملائي في المقرر					
55. واجهة برنامج ACES تمكنني من التفاعل مع المادة العلمية					
56. واجهة وأدوات برنامجACES مرتبة بشكل منظم.					
57. برنامج ACES يزيد من اهتمامي بالتعلم.					

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
58. برنامج ACES يوفر بيئة تعلم جيدة.					
59. أستطيع الحصول على الدعم الفني بسهولة في أي إشكالية تواجهني عند العمل على برنامج ACES.					
العبارات التالية تتعلق بمدى رضاك عن التعلم المدمج.					
60. التعلم المدمج طريقة محفزة للتعلم.					
61. أفضل التعلم المدمج على التعلم التقليدي.					
62. التعلم المدمج عملية مثيرة.					
63. التعلم المدمج يستحق الوقت الذي أقضيه فيه.					
64. أستمتع بالتعلم المدمج.					
65. أتطلع إلى الدراسة باستخدام التعلم المدمج مستقبلاً.					
66. سأستمتع بتعلمي أكثر لو كانت دراسة جميع المقررات تتم باستخدام التعلم المدمج.					
67. أشعر بالرضا عند دراسة هذا المقرر.					

Appendix 8

Items correlations with sum scales:

LI-interaction	LL-interaction	Autonomy	CS-content	CS-assessment	Quality	Interface
Item 1	-0.135	0.241	0.244	0.276	0.225	0.087
Item 2	-0.077	0.163	0.274	0.17	0.059	0.126
Item 3	0.221	0.181	0.551	0.435	0.409	0.388
Item 4	0.285	0.171	0.448	0.36	0.329	0.338
Item 5	-0.219	0.193	0.38	0.362	0.266	0.425
Item 6	0.266	0.07	0.437	0.337	0.378	0.35
Item 7	0.004	-0.088	0.259	0.206	0.263	0.381
Item 8	0.216	-0.028	0.453	0.298	0.587	0.416

LL-interaction	LI-interaction	Autonomy	CS-content	CS-assessment	Quality	Interface
Item 9	0.107	0.053	0.091	0.113	0.336	-0.046
Item 10	0.202	0.018	0.069	0.129	0.366	-0.015
Item 11	0.118	0.133	0.197	0.265	0.331	-0.042
Item 12	0.226	0.134	0.2	0.251	0.375	0.059
Item 13	0.102	-0.068	0.058	0.259	0.177	0.073
Item 14	0.188	0.166	0.29	0.204	0.496	0.248

Autonomy	LI-interaction	LL-interaction	CS-content	CS-assessment	Quality	Interface
Item 15	0.079	-0.189	0.166	-0.022	0.084	0.009
Item 16	0.067	-0.05	0.173	0.173	0.202	0.158
Item 17	0.128	0.058	0.101	0.122	0.199	0.106
Item 18	0.142	-0.084	0.156	0.11	0.283	0.099
Item 19	-0.027	-0.074	0.077	-0.018	0.159	-0.025
Item 20	0.117	0.019	-0.016	0.045	0.146	-0.044
Item 21	0.319	0.288	0.178	0.43	0.305	0.091
Item 22	0.229	0.384	0.322	0.241	0.335	0.076
Item 23	-0.106	0.024	0.105	-0.146	0.053	-0.055

CS-content	LI-interaction	LL-interaction	Autonomy	CS-assessment	Quality	Interface
Item 24	0.082	0.245	0.253	0.369	0.521	0.031
Item 25	0.307	0.103	0.314	0.315	0.368	0.189
Item 26	0.36	0.199	0.213	0.453	0.539	0.355
Item 27	0.449	0.048	0.074	0.356	0.35	0.387
Item 28	0.426	0.124	0.306	0.365	0.498	0.264
Item 29	0.511	0.194	0.205	0.454	0.503	0.435

Item 30	0.418	0.006	0.113	0.457	0.354	0.457
Item 31	0.279	0.061	0.058	0.378	0.287	0.351
Item 32	0.368	0.198	0.144	0.485	0.393	0.384

CS-assessment	LI-interaction	LL-interaction	Autonomy	CS-content	Quality	Interface
Item 33	0.407	0.305	0.203	0.534	0.727	0.439
Item 34	0.374	0.185	0.149	0.465	0.452	0.431
Item 35	0.396	0.039	0.193	0.534	0.357	0.547
Item 36	0.369	0.053	0.138	0.607	0.365	0.555
Item 37	0.406	0.216	0.222	0.414	0.423	0.579
Item 38	0.263	0.257	0.264	0.359	0.492	0.415
Item 39	0.238	0.218	0.113	0.513	0.276	0.271

Quality	LI-interaction	LL-interaction	Autonomy	CS-content	CS-assessment	Interface
Item 40	0.405	0.149	0.188	0.367	0.513	0.276
Item 41	0.24	0.375	0.375	0.398	0.214	0.079
Item 42	0.137	0.081	0.39	0.259	0.159	0.273
Item 43	0.251	0.225	0.276	0.379	0.371	0.276
Item 44	0.342	0.121	0.255	0.44	0.376	0.366
Item 45	0.39	0.324	0.202	0.319	0.455	0.477
Item 46	0.369	0.397	0.199	0.492	0.379	0.356
Item 47	0.451	0.451	0.208	0.441	0.35	0.362
Item 48	0.248	0.326	0.142	0.449	0.37	0.35
Item 49	0.094	0.26	0.127	0.36	0.298	0.322

Interface	LI-interaction	LL-interaction	Autonomy	CS-content	CS-assessment	Quality
Item 50	0.098	-0.14	-0.047	0.132	0.279	0.147
Item 51	0.333	-0.112	0.176	0.271	0.377	0.193
Item 52	0.322	0.042	0.106	0.286	0.452	0.404
Item 53	0.408	-0.069	0.118	0.292	0.327	0.296
Item 54	0.339	0.171	0.104	0.215	0.268	0.272
Item 55	0.347	0.045	0.157	0.453	0.48	0.352
Item 56	0.317	0.069	-0.071	0.456	0.519	0.402
Item 57	0.286	0.023	0.075	0.376	0.394	0.389
Item 58	0.255	-0.075	-0.073	0.369	0.394	0.345
Item 59	0.292	0.156	-0.2	0.32	0.334	0.416

Appendix 9

AOU Memo to the Tutors Asking for Collaboration with the Researcher:

Arab Open University
Bahrain Branch

الجامعة العربية المفتوحة
فرع مملكة البحرين

26 نوفمبر 2006م

الأساتذة الأفاضل / أعضاء الهيئة الأكاديمية المحترمين
الجامعة العربية المفتوحة – فرع مملكة البحرين

نفيدكم علماً بأن السيدة/ سامية علي جمعة تقوم بعمل دراسة ميدانية استكمالاً لمتطلبات التخرج في برنامج الماجستير الذي تلتحق به، لذا نود منكم التعاون معها في تزويدها بالبيانات والمعلومات التي تحتاجها، علماً بأن هذه المعلومات لن تستخدم في أغراض تقييم أداء المدرسين أو الطلبة.

✧✧شاكرين لكم تعاونكم وتفضلوا بقبول فائق الشكر والاحترام✧✧

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Appendix 10

Section Details & Number of Valid Responses

Course Type	Course	Gender	level	sec	sec size	Day	Date	# valid Responses
GR	AR111	Males	1	12	25	Monday	27-Nov-06	0
GR	AR112	Males	1	2	22	Thursday	30-Nov-06	18
GR	AR112	Females	1	24	20	Monday	27-Nov-06	17
BAS	B200-A	Females	2	21	35	Tuesday	28-Nov-06	26
BAS	B202-B	Males	2	1	15	Thursday	30-Nov-06	10
BAS	B202-B	Females	2	20	21	Monday	27-Nov-06	12
BAS	B300-B	MF	4	1	23	Thursday	30-Nov-06	12
BAS	B631	Males	1	2	26	Monday	04-Dec-06	0
BAS	B631	Females	1	22	17	Tuesday	28-Nov-06	14
GR	EL111	Males	1	7	17	Wednesday	29-Nov-06	8
GR	EL111	Males	1	9	23	Monday	04-Dec-06	0
GR	EL112	Males	1	5	17	Thursday	30-Nov-06	17
GR	EL112	Males	1	8	21	Wednesday	29-Nov-06	17
GR	EL112	Males	1	9	26	Monday	27-Nov-06	12
GR	GR101	Males	1	3	27	Monday	27-Nov-06	0
GR	GR101	Males	1	6	17	Wednesday	29-Nov-06	13
GR	GR101	Females	1	23	22	Thursday	30-Nov-06	22
IT	M206-A	Males	2	4	24	Wednesday	29-Nov-06	18
IT	M206-A	Females	2	20	25	Thursday	30-Nov-06	0
IT	M301-A	MF	3	20	30	Thursday	30-Nov-06	15
IT	M301-A	Females	3	21	19	Tuesday	28-Nov-06	21
IT	MST121-A	Males	2	1	28	Thursday	30-Nov-06	14
IT	MST121-B	Males	2	1	25	Thursday	30-Nov-06	9
IT	MT262-A	Females	3	20	16	Thursday	30-Nov-06	10
GR	MU120-B	Males	2	2	19	Monday	27-Nov-06	6
GR	MU120-B	Females	2	20	12	Sunday	26-Nov-06	0
IT	T171-A	Males	1	2	20	Thursday	30-Nov-06	8
IT	T171-A	Females	1	21	19	Sunday	26-Nov-06	0
IT	T171-B	Males	2	2	22	Thursday	30-Nov-06	5
BAS	T172-A	Males	3	2	23	Monday	27-Nov-06	0
BAS	T172-A	Females	3	20	17	Tuesday	28-Nov-06	11
BAS	T172-A	Females	3	21	26	Sunday	26-Nov-06	0
GR	TU170	Males	1	3	23	Thursday	30-Nov-06	12
GR	TU170	Females	1	20	19	Thursday	30-Nov-06	5
GR	TU170	Males	1	9	17	Wednesday	29-Nov-06	13
GR	TU170	Males	1	15	21	Monday	27-Nov-06	15
Total					779			360

ملخص البحث

ركز هذا البحث على إدراكات طلبة البكالوريوس لنظام التعلم المدمج المطبـق فـي الجامعـة العربية المفتوحة – فرع مملكة البحرين. كما ركز على العوامل التـي تـؤثر فـي إدراكـات المتعلمين، وتناول العلاقات بين إدراكات المتعلمين وبين خصائـصهم الديموغرافيـة (الـسن، الجنس، المستوى التعليمي، الخبرة في استخدام الإنترنت، والحالة الوظيفية). إضافة إلى ذلـك، تعرض البحث للعلاقات الداخلية بين أبعاد إدراكات المتعلمين، كما درس علاقـة هـذه الأبعـاد بدرجة رضا المتعلمين عن نظام التعلم المدمج المطبق في الجامعة، علماً بأن أبعـاد إدراكـات المتعلمين التي ركز عليها البحث هي: التفاعل في المقرر، استقلالية المتعلم، بنية المقرر، جودة التعليم في المقرر، والبيئة الإلكترونية المستخدمة في عملية التفاعل.

وقد طور الباحث أداة لقياس أبعاد إدراكات المتعلمين ورضاهم عن نظام التعلم المـدمج. وقـام بتطبيق الاستبانة على عينة مكونة من ٣٤٠ طالباً وطالبة في برامج البكالوريوس في الجامعـة العربية المفتوحة- فرع ممكلة البحرين. ولتحليل النتائج تم استخدام تحليـل التبـاين المتعـدد، وتحليل التباين الأحادي، بالإضافة إلى حساب معاملات الارتباط والانحدار المتعدد.

تبين من خلال البحث أنه –بشكل عام- فإن إدراكات طلبة البكالوريوس لنظام التعلم المدمج في الجامعة العربية المفتوحة – فرع مملكة البحرين كان إيجابيا. وتبين كذلك أن السن والجـنس لا يعدان عاملين مؤثرين في إدراكات المتعلمين. أما المستوى التعليمي للمتعلم فقد كان عاملاً مؤثراً على إدراكات المتعلمين للتفاعل فيما بينهم وعلى إدراكاتهم للبيئة الإلكترونية المـستخدمة فـي عملية التفاعل. كما وجد البحث أن خبرة المتعلمين السابقة في الإنترنت تؤثر في إدراكاتهم لهذا

النظام، فلقد وجد أنه كلما زادت خبرة المتعلمين في الإنترنت كانت إدراكاتهم أكثر إيجابية لنظام التعلم المدمج وبخاصة درجة الاستقلالية المتاحة لهم خلال المقرر.

وعندما تم اختبار العلاقات بين أبعاد الإدراكات، وجد أن العلاقة بين تفاعل الطلبـة وبعـضهم البعض وبين كل من: تفاعل الطلبة مع المدرس وبنية المقرر والبيئة الإلكترونية المستخدمة غير دالة، كما وجد البحث أن هناك علاقة دالة بين تفاعل الطلبة مع المدرس وبين كـل مـن: بنيـة المقرر والبيئة الإلكترونية المستخدمة، ووجدت كذلك علاقة دالة بين بنية المقرر وبـين البيئـة الإلكترونية المستخدمة. وتبين من البحث كذلك وجود علاقة دالة بين استقلالية المتعلم وبين كـل من بعدي التفاعل (التفاعل بين الطلبة بعضهم مع بعض والتفاعل بين الطلبة والمدرس) وبنيـة المقرر. إضافة إلى ذلك، فقد وجد أن العلاقات بين جودة التعليم في المقرر وبين كل من: بنيـة المقرر، التفاعل في المقرر، والبيئة الإلكترونية المستخدمة في التفاعل هي علاقات دالة.

وقد وجد أن هناك علاقة متوسطة القوة وموجبة بين رضا المتعلمين عن نظام الـتعلم المـدمج وبين كل من: بنية المقرر، جودة التعليم في المقرر، والبيئة الإلكترونية المستخدمة في التفاعـل. كما كانت العلاقة بين درجة الرضا وبين التفاعل علاقة موجبة إلا أنها ضعيفة. كما وجد البحث أن لأبعاد الإدراكات -عندما تؤخذ مجتمعة- تأثير ملحوظ على درجة رضا المتعلمـين، إلا أن جودة التعليم في المقرر والبيئة الإلكترونية المستخدمة في التفاعل كانا البعدين الأكثر أهمية فـي تفسير درجة رضا المتعلمين عن نظام التعلم المدمج.

جامعة الخليج العربي

كلية الدراسات العليا

برنامج التعليم والتدريب عن بعد

إدراكات طلبة البكالوريوس في الجامعة العربية المفتوحة- فرع مملكة البحرين لنظام التعلم المدمج المطبق، وعلاقتها ببعض المتغيرات الديموغرافية ومتغيرات الخبرة

رسالة مقدمة كجزء من متطلبات الحصول على درجة الماجستير في
التعليم والتدريب عن بعد

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جمادى الثانية ١٤٢٨هـ

يونيو ٢٠٠٧ م