THE ATTITUDES OF MIDDLE EASTERN FACULTY TOWARD THE USE OF

DISTANCE EDUCATION IN THE MIDDLE EASTERN STATE

UNIVERSITIES: A COMPARATIVE STUDY BETWEEN

THE MIDDLE EASTERN FACULTY AND USA FACULTY

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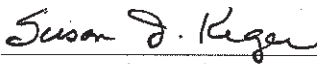
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ABSTRACT

Although distance education is offered in many academic institutions, specifically
universities, in most of the developed countries, utilizing it as a part of the educational system in
the Middle East is still in the development stage and not at the same stage as Western and
European countries. Of the institutions in the Middle East that have started utilizing distance
education, many face difficulties, an example of which is that these distance programs are not
accredited by the educational system in the country. In turn, this leads to other problems for
graduates of these distance programs, such as inability to find a job or inability to go for a higher
education degree.

As the faculty members of the universities in the Middle East represent a strong and an
effective part of the education stake holders in the Middle East, this study investigates their
attitudes toward the use of distance education in Middle Eastern universities. A comparison
between the attitudes of the faculty members in the Middle East and faculty members in the
United States was conducted.

The study involved 139 faculty members from the Middle East, who live and work in
Yemen, Kuwait, Saudi Arabia, United Arab Emirates, and Bahrain; and 126 participants from
the United States, who work at various universities. To investigate their attitudes toward the use
of distance education, a web-based survey was created in two versions, Arabic and English, and
a link to it was sent out to participants via email.

The study results showed negative attitudes of Middle Eastern faculty members in the use of technology, culture and social, economic, location, policies, educational, academic achievement and availability of distance education tools factors. When compared to the faculty members in the USA, Middle Eastern faculty members showed more negative attitudes toward the use of distance education.

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I would like to thank all the faculty members, in the Middle East and in the United States, who without knowing me spared 15 to 20 minutes of their valuable time to fill in the survey and help me conduct this study. Some of these went the extra mile to even send the survey out to their colleagues to help increase the responses. I am so grateful to them.

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Chapter 1

INTRODUCTION

Education in the Middle East began more than 1,400 years ago (Shamsaary, Saqeb, &

Halstead, as cited in Halstead, 2004) with circles of students surrounding their teacher in what

was called Halqha (circle) in the mosque. The main purpose of these circle lessons was to teach

students the Quran and moral values. These were very popular; "at least 3,000 of them existed in

the 10th century in Baghdad alone" (Hilgendorf, 2003, p. 66). With the growing number of

students, these mosque schools were moved in location to make a separate institution called

madrasa (school). The madrasa was not much different from mosque schools where the focus

was on "advanc[ing] the student through the Quran to give a complete understanding of the

fundamental issues of value and morality; [and not to] challenge the student in pursuits of higher

analytic thinking" (Hilgendorf, 2003, p. 66). The teacher was the carrier and deliverer of

knowledge and the role model for the students' behavior.

The focus of the madrasa on teaching the Quran and fundamental moral values was still

the case when the Middle Eastern countries gained their independence in the 1960s. When they

became independent, Middle Eastern countries were faced with multiple changes and reforms in

fields like education, health, and economics that needed to take place so that these countries

could catch up with other more developed countries. Although some of the Middle Eastern

countries, like the Gulf States, were more fortunate than others in having the financial resources that would help in making quick changes, priorities were still given to the basics. In education, "the main interest in the Middle East revolved around basic and to some extent higher education" (Hilgendorf, 2003, p. 68). This led to more K-12 and higher education institutions, but there were still very few education institutions that focused on fields like special needs, gifted students, and distance education.

Reporting about education in the Middle East during the three last decades, the Christian Science Monitor (2002) referred to the growing number of educational institutions but also pointed out that despite the fact that there were many quantitative achievements, they were undermined by poor quality which "has become the Achilles heel of education in the Middle East" (Christian Science Monitor, 2002, para. 3).

Wheeler (2002) is in agreement with these difficulties. However, he believes that with the new millennium, many Arab countries "are beginning to invest heavily in flexible and open forms of education to raise the standards of knowledge production and equip their workforces to face the challenges of the new millennium" (p. 453). Although many of these open forms of education represented by open universities or some distance education can be found at the present time, they are still unaccepted or at least unaccredited by the education system in the Middle East.

Statement of the Problem

In an age with fast advancing information technology and increasing use of distance education in many countries, distance education in the Middle East is lingering behind with a gap in education that gets wider every year. While online material and the most advanced information technology is used in developed countries, printed material sent to students via mail

or prepared for students to pick up at local offices is very commonly used in distance institutions in the Middle East (Shaker, 2000).

Creating such a new distance educational system in the Middle East is "a daunting, perhaps impossible task" (Cook, 1999, p. 339) because many in the Middle East believe that it is Western-based with its secularist approaches that are "doing immeasurable damage to the moral, spiritual and ethical values of Islamic culture and heritage" (Ali as cited in Cook, 1999, p. 341). This belief stems from the point of view that western education does not represent the values of Islam and that it adopts liberal perspectives according to which there is much focus on principles like "individualism and the freedom of the individual choice", or "encourage[ing] people to align their religious beliefs with rational principles" (Ali as cited in Cook, 1999, pp. 349-350). Cook fails to explain, however, why these countries still send hundreds of their students to the USA for their undergraduate and graduate education every year with no fear of damaging their moral or spiritual values. In the fall of 2005, for example, 5,000 Saudi students were enrolled in American universities, which was more than double the number of the year before (Brinkley, 2005). In the fall of 2006, the number of Saudi students increased even more with the initiation of a new exchange program proposed by both the American and Saudi government. This program planned to quintuple the number of Saudi students in the United States by the end of the 2006 (Conroy, 2006).

A different point of view of the effect of American education on the Middle East was also presented by Bubtana (2003). He believed that the effect and co-operation between Arab and American institutions was very significant and important. He believed that "in this era of globalization … this co-operation needs to be developed and expanded even further, particularly for research, knowledge generation, and staff and student mobility and exchanges" (pp. 57-58).

Although this co-operation is undoubtedly very important, and it works toward the development of education in the Middle East, the problem of brain drain seems to cause a negative effect on the development of higher education and improvement of education systems like distance education. It drained, for example, "between 40 and 50 percent of the academics and professionals" in countries like "Egypt, Jordan, and all the Maghreb countries" (Bubtana, 2003, p. 59). To solve this problem, Bubtana suggested a reversing of the brain drain by either establishing "joint graduate programs" by which, even if students take courses in a foreign institution they should go home to receive their degrees from national institutions, or through the foreign universities support by building "full-fledged graduate and research programs at Arab Universities" (p. 59).

There is a challenge in providing education to a diverse and increasing number of populations in the Middle East especially with the fast development in all aspects of life, including education and using technology in education, at the present time. Nicks-McCaleb (2005) referred to Coffman's (2003) report of an annual growth rate of about 3% in the Gulf States region. In the Middle East, the challenge is critical as there is still a huge difficulty in eradicating illiteracy for a large number of people. According to Alsunbul (2002), illiteracy ranges from 30% to 70% in the Middle East in general and about 30% of school age students are not enrolled in schools.

The challenges of providing education helped in shaping the objectives of the open and distance institutions in the Middle East presented by the Arab Ministers of higher education in a conference that took place in Beirut in September 2000. These objectives included making education, vocational and technical training available to a large portion of the population.

Education was also to be provided to the rural and geographically isolated regions and to those who cannot attend regular classes in conventional institutions (Alsunbul, 2002).

Although the Beirut conference considered distance education "a strategic option for the provision of higher education in the Arab countries, most of the countries concerned have only limited capacities, experience, and expertise in this non-conventional form of education" (Bubtana, 2003, p. 59). Nasser and Abouchedid (2000) also think that "most education decision-makers remain militate against distance education [and that] strategic thinking is counter weighted by negative attitudes towards the workability of distance education" (Introduction section, para. 3).

From what has been explained before, one can see that there is a noticeable attempt to use distance education. However, there are only a few distance education institutions in the Middle East, and they do not function as completely accepted academic institutions. For example, these institutions are not accredited, and their graduates cannot find jobs especially in the public sector. These students cannot also go for graduate education in their state universities as their certificates are not accepted (Shaker, 2000). The problem, also, affects Middle Eastern students who are taking their graduate education programs outside their countries. These students cannot, most of the time, register for more than two distance classes during their whole program. They also must present strong legitimate reasons that are approved by their academic advisors or chair of the departments, to their cultural attachés, for enrollment in these classes (Stephanie Ko, personal communication, March 21, 2007). This issue creates a critical situation for students when not enough face-to-face classes are offered for a specific semester as they find it hard to accommodate the rules imposed by the education system, i.e. by not taking distance

(here online) classes, and the immigration rules that require them to maintain full-time student status.

To address this problem, this study sought to understand the reasons that distance education is undervalued and that distance education institutions in the Middle East are not accredited. As the decision making comes from the policies and regulations established by the state universities (this includes policies in connection with students sent abroad for higher education), this study investigated whether the cause of the problem is the negative attitudes of state university faculty toward distance education.

Research Questions

The main purpose of the study was to investigate the attitudes of Middle Eastern faculty toward the use of distance education in the Middle Eastern universities. A comparison was made between the Middle Eastern state university faculty and USA state university faculty. The following questions were addressed:

1. Are there statistically significant differences between the attitudes of university faculty in the Middle Eastern state universities and the attitudes of university faculty in the USA state universities toward distance education?

2. Are there statistically significant differences between the attitudes of the male and female university faculty toward distance education?

3. Are there statistically significant differences in attitudes among the level of the experience (little, average, much) of state university faculty toward distance education.

4. In reference to attitudes toward distance education, is there a statistically significant interaction:

a.   Between faculty nationality (Middle Eastern faculty or American faculty) and the
    faculty gender?

b. Between faculty nationality (Middle Eastern faculty or American faculty) and the
    faculty experience (little, average, much)?

c. Between faculty gender and faculty experience (little, average, much)?

d. Among faculty nationality (Middle Eastern faculty or American faculty), faculty
    gender and the faculty experience (little, average, much)?

5. Is there a statistically significant correlation between the attitudes of faculty toward
    distance education and the availability of the required tools to integrate the distance
    education system in both USA and Middle Eastern state universities?

Hypotheses

1. There are statistically significant differences between the attitudes of university faculty in
    the Middle Eastern state universities and the attitudes of university faculty in the USA
    state universities toward distance education.

2. There are statistically significant differences between the attitudes of the male and female
    university faculty toward distance education.

3. There are statistically significant differences in attitudes among the level of the
    experience (little, average, much) of state university faculty toward distance education?

4. In reference to attitudes toward distance education, there is a statistically significant
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faculty experience (little, average, much).

c. Between faculty gender and faculty experience (little, average, much).

d. Among faculty nationality (Middle Eastern faculty or American faculty), faculty

gender and the faculty experience (little, average, much).

5. There is a statistically significant correlation between the attitudes of faculty toward

distance education and the availability of the required tools to integrate the distance

education system in both USA and Middle Eastern state universities.

Significance of the Study

The change toward distance education in the Middle East is very slow when compared to

the rapid advancements taking place in different parts of the world. Alsunbul (2002) attributes

this to "change does not come about easily in traditional higher education systems that are deeply

rooted in certain beliefs, cultures and ways of teaching on campus" (p. 68).

Turning toward more open education systems will liberate many old, closed systems and

take education to a higher level that may compete with education systems in the developed

countries (Castillo, 2002). By taking education to a higher level, some Middle Eastern academic

officials, who are advocates of distance education like Hassan Risheh, the Syrian Minister of

Higher Education, wish that the education systems may not only target Arab but also foreign

students who are "hungry … for knowledge about Islam and Islamic culture" (para. 4).

Although a lot of distance education institutions in the Middle East have opened their

doors for Arab students, there are still many difficulties to making the certificates that students

obtain valued. Shaker (2000) points out that "Officially [the certificates] are not considered to be

at a higher education level [and thus they] have a very low economic and educational value for people seeking jobs or further higher education" (pp. 63, 65).

When accredited and accepted by the education policy makers and the public, distance education institutions will offer education to a large sector of the population in the Middle East, especially those who cannot be provided with enough educational opportunities in conventional universities like housewives, people living in rural and remote areas and also adult people with jobs, families and other social commitments (Kailani as cited in Alsunbul, 2002). A high percentage of young adults in the Gulf area are married by the time they finish high school. Shaker (2000) found that, according to the Central Statistics Organization, in Bahrain alone about 85.1% of the males and 80.4% of the females who married in 1995 had a secondary school education or less.

The availability of qualified distance education institutions will encourage more students to complete their higher education due to the lower cost of distant courses. According to Shaker's (2000) study of the status and needs of distance education in Bahrain, the average cost of the study via distance education in the undergraduate level is only $1,350 while it is $2,650 for conventional education. This will offer great opportunities to students who cannot afford the conventional universities or travelling abroad for their higher education.

The flexibility distance education offers can "materialize the dreams of thousands and thousands of [the Middle Eastern high school graduates by] giving them the opportunity to enroll in a university" (Alsunbul 2002, p. 61). Alsunbul cited data from the United Nations Educational, Scientific and Cultural Organization (UNESCO), which states that "only twenty-five percent of the total students desiring to obtain higher education can be admitted to the universities and colleges, despite the fact there exist more than 184 higher academic institutions

with various fields and programmes" (p. 61). This can be due to the failure in meeting the requirements of admission of these institutions or due to economic and social factors like inability to pay the high cost of school or the requirement of leaving one's job for education (as this will affect the family's source of income).

Accepting and accrediting distance education institutions will not only be to the good of the Middle Eastern students taking their education in the Middle East. In addition, it will solve the problem of students from the region taking their higher education abroad in countries like the United States. These students can only take a very limited number of distance classes during their study programs.

Purpose of the Study

This study investigated the attitudes of Middle Eastern faculty toward the use of distance education in the Middle Eastern universities. A comparison was made between faculty in the Middle Eastern state universities and faculty in USA state universities. The study also investigated whether the faculty attitudes were related to the availability of the required tools for fully utilizing distance education in their universities or universities in general. The results provide a clearer idea of the reasons behind lack of use of distance education in the Middle East.

Definition of Terms

Distance Education: According to Schlosser and Simonson (2006), distance education can be 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" (p. 4). Schlosser and Simonson pointed out four conceptual components to this definition:

1. Institutionally-based which means that although students may not meet with the instructors; they are not studying on their own. This implies that the same institution can offer traditional or distance classes or it can be a completely separate institution that offers distance education.

2. Separation, which does not only refer to separation in place but also in time. Students and instructors can either meet asynchronously or synchronously.

3. Interaction, which refers to the interaction between students with each other on one hand and students and the instructors on the other.

4. Telecommunication systems which refer to either the tradition tools of communication at distance like correspondence or to the more advanced electronic media like the Internet.

Open Education: According to Edwards (as cited in Schlosser & Simonson, 2006), the researcher defines open education as an education system in which the learners not only have the opportunity to study at distance (like in distance education), but they also can adapt the system to accommodate their specific needs and requirements.

Middle East: The Middle East is an historical and cultural subregion of Africa-Eurasia traditionally held to be countries or regions in Southwest Asia together with Egypt. In other contexts, the region can include other parts of North Africa and/or Central Asia.

Limitations

1. The study covered only five countries in the Middle East. These are Yemen, Kuwait, Bahrain, Saudi Arabia, and the United Arab Emirates (UAE). The researcher faced some difficulty in finding channels of connection to recruit participants for the study from the other countries in the region.

2. Only state universities were covered in the study and not private universities or two and three year institutions.

3. The survey was distributed to faculty across various academic disciplines, and each discipline was not necessarily inclined to view distance education favorably; however, no effort was made to control for this variance. For instance, some disciplines have a practical application component that is part of the curriculum that cannot be appropriately simulated in a distance environment. Faculty from these disciplines may tend not to view distance education favorably. However, because the survey is written in a general sense, rather than being guided by academic constraints, it was hoped that faculty responded in general.

4. The results of the study reflect the current and previous status of distance education in the Middle East. This may change in the coming few years due to the many current calls for reform in several aspects of life in many Arab countries.

Delimitations

1. Similarity in language, social structure, and education systems among the Middle East countries makes the study a good foundation for other researchers who intend to go further on the research for the other Arab countries.

2. Due to the similarity in language, social structure, and education systems among the Middle East countries, the results of the study can be generalized to other Arab countries.

3. The researcher is a native speaker of Arabic which helps in sending the questionnaire in Arabic to as many participants as possible. This helped in the analysis of the results.

Assumptions

1. The participants from the countries in the Middle East participating in the study truly represented the population of the university faculty in the Middle East.

2. The participants from the countries in the Middle East participating in the study were familiar with both modes of teaching, i.e., traditional face-to-face and distance education.

3. The participants from the universities in the United States participating in the study represented the population of the university faculty in the United States.

Conclusion

Chapter one gave an overview of education and distance education in the Middle East. This overview covered the roots of education which started over 1,400 years ago in addition to the current status of education after the independence of these countries in the 1960s. The study points out the problem of increasing population and a sharp need for more institutions that reach all those hoping to complete their higher education. While distance education institutions represent a great solution for the problem, difficulties face this mode of education. The following chapter examines the literature addressing distance education and the difficulties facing it.

Chapter 2

LITERATURE REVIEW

Education in the Middle East

Although there are differences among the Middle Eastern countries, which extend from the Atlantic Ocean in the west to the Arabian Gulf in the east, key similarities exist. The most important of these are language, Arabic; and religion, mostly Islam. Akkari (2004) states that these two aspects are "key factors in the identity formation of the region" (p. 144).

In the beginning of the 20th century, education in the Arab region was provided by the local education system which was provided by the Koranic Schools, and the compulsory modern education, which was initiated by the colonial authorities (Akkari, 2004). Akkari thinks that there was a conflict between the two systems. On one hand, the formal education, which was provided by the colonial authorities, was limited in access to only the few who these authorities wanted, especially by teaching them the European languages, to "strengthen the colonial administration and weaken nationalist tendencies" (p. 144). On the other hand, the local Koranic schools defied the existence of the colonial education because of their "opposition to western cultural hegemony" (p. 144).

After gaining their independence, nearly all the new local governments in the Middle East sought to establish compulsory education, especially at the elementary school level. Akkari

(2004) points out that many Arab countries have achieved significant success in student enrollment, which jumped from 61% in 1965 to 98% in 1990 in elementary education. More progress was achieved in the oil exporting countries in the Middle East. In contrast, some other countries like Yemen, Egypt and Morocco faced more challenges in establishing their public education systems due to the large and increasing population, especially in their rural areas. Zibani, as cited in Akkari, pointed out that 41% of the Egyptians were below the age of 15 with about 11.33 million in the age group of 6-14 (which is the age range of compulsory education) in 1986. Such a huge percentage of the population makes it more challenging for these countries to make better progress in providing education to all of the people.

Since the declaration of independence of many of the Middle Eastern countries in the 1960s, literacy in the Middle East has improved significantly (more than doubled) especially in the urban areas. According to a World Bank report (1999), the fact that urban areas experienced more improvement in literacy than rural areas made countries like Yemen, Egypt and Morocco, which have more rural than urban population, experience a very low literacy improvement level, reaching 50% lower than the urban areas.

Females in the rural areas of the Middle East are at even more disadvantage. According the World Bank report (1999), the percentage of literate females is 20% lower than that of males. The report states, "Only one in ten rural women can read and write in Morocco, and only one in nine can read in Yemen" (p. 10).

Although one may assume better literacy rates in some countries in the Middle East due to the high income and better economy, i.e., in the Gulf countries, it does not seem to be the case. According to the Oxford Committee for Famine Relief's (OXFAM, 2000) Education Performance Index (EPI), some rich countries in the Middle East performed lower in the three

areas the index used: school enrollment, school completion, and gender equity. In Table 1, when comparing the EPI rank to income rank in countries like Tunisia, Syria or Egypt to wealthier countries like Oman, Kuwait and Saudi Arabia, one finds that these wealthier countries are not doing enough to perform better in the three criteria of school enrollment, school completion, and gender equity. The researcher believes that the apparent contradiction between well-off countries and their lower performance in the index, pointed out by OXFAM, may be better understood when looking at the recent history of these countries.

Table 1

Educational Performance Index and Income Rankings

EPI Rank	Country	EP Index	Income P.P.P ($)	Income Rank	Difference in Ranking
1	Bahrain	0.55	15.321	7	6
3	UAE	0.94	16.000	5	2
8	Tunisia	4.03	5.319	33	25
20	Syria	7.30	5.397	30	10
34	Egypt	13.52	3.846	39	5
42	Qatar	17.92	18.403	4	-38
47	Oman	19.08	10.078	11	-36
56	Kuwait	24.95	21.875	2	-54
60	Saudi Arabia	26.19	9.338	12	-48

Note: Extracted from OXAM's Media Report: Educational Performance
Index and Income Rankings

As has been mentioned before, it was the colonial authorities that initiated compulsory education in many Middle Eastern countries. According to the The World Fact Book (2007), countries like Tunisia and Egypt were colonized in 1881 and 1882 respectively. Syria was under the administration of Britain from World War I until its independence in 1946. On the other hand, Oman was only on a British military and political advisory till the current Sultan Qaboos "overthrew the restrictive rule of his father" (The World Fact Book, 2007, para. 1) in 1970. Similarly, only the foreign relations and defense of Kuwait was overseen by Britain until its independence in 1961. Saudi Arabia was never under any kind of foreign colonization. In fact, the modern kingdom of Saudi Arabia was founded in 1932 after "a 30-year campaign to unify most of the Arabian Peninsula" (The World Fact Book, 2007, para. 1), which means a long time was needed before modern education actually took place in Saudi Arabia. In other words, there was not a complete colonial authority where there would be a clear effect on education like in Tunisia and Egypt.

At the University level, drastic changes took place in the field of education in the Middle East during the last century and the first years of the 21st century. While there were only 10 universities prior to the World War II, there were "some 132 universities (half founded in the period 1980-1993), 136 university-level colleges or institutes, and 437 community colleges or diploma-granting technical institutes" (UNESCO as cited in Mazawi, 1999, para. 2) half a century later. Mazawi, also pointed out that the number of postsecondary students grew rapidly from only 0.3 million out of 96 million in the mid-1960s to 2.5 million out of 220 million in the mid-1990s. This growth differs among the Middle Eastern countries. For example, in 1995, countries like Jordan and Kuwait had over 2,300 postsecondary students, while other countries like Sudan and Yemen had less than 450 (Mazawi, 1999).

According to Mohamed (2005), by 2003, the number of universities in the Middle East had jumped to 200 universities. Although this growing number of universities seems promising, according to Mohamed, the Arab countries are still unable to meet the needs of increasing numbers of people who seek to obtain their higher education in the Middle East. This challenge was addressed in 1999, in the Arab Regional Conference on Higher Education in Beirut, which came out with a call to utilize information and communication technologies to "contribute in the provision of courses and degree-awarding programs through multiple and advanced means, thus breaking through the traditional barriers of space and time" (UNESCO, as cited in Mohamed, 2005, p. 4).

In order to fill this need for more higher education institutions, many countries in the Middle East have opened doors for the private sector to invest in higher education or they allowed overseas universities to open local branches of their campuses in the past few years. One of the best examples of that is the UAE which, since the establishment of the state in 1971, has only two state universities, i.e., the UAE University in Al-Ain which was founded in 1977 and Zayed University, founded in 1998 with two campuses in Dubai and Abu Dhabi (Nicks-McCaleb, 2005). With a population of 2,563,212 (The World Fact Book, 2007) and with four-fold growth in higher education enrollment only in the past 10 years (Nicks-McCaleb, 2005), there was a need for more than the two universities especially with the growing number of students seeking higher education. This need led to the opening of 23 private higher education institutions, "mostly from the United States and primarily based in Dubai and Sharjah" (Nicks-McCaleb, 2005, p. 326). In addition to their independent work in the country, these overseas institutions "develop affiliations with existing private colleges" (Nicks-McCaleb, 2005, p. 324). This affiliation plays a vital role in strengthening the education standards in the country

especially as "Higher education credentials from the United States and other Western countries continue to be highly desirable" and degrees carry "great kudos in the community and are an indication of a positive future career" (Nicks-McCaleb, 2005, p. 324).

Distance Education

Technology invades all aspects of life at the present time. Westera and Sloep (2001) indicated that the last few decades witnessed significant advancement in technology represented in information technology and "the boom of the Internet, connecting people via world-wide networks of computers [which] seems to mark a new era of human communication" (Technological Change section, para. 1). The following are three of the technological developments Westera and Sloep expected to take place.

First, full accessibility to the Internet and information will be for all. This will not be limited only to the developed world but will extend to cover the third world, too. Westera and Sloep (2001) believed that "decreasing prices of personal computers and the development of various kinds of productivity software" (Technological Change section, para. 1) are indications of this accessibility. Second, there will be large bandwidths so that the transfer of data will be easier. Westera and Sloep predicted "truncated ways of mediated communication like chat, news (NNTP) or even (internet) telephony may soon become obsolete remnants of immature technologies" (Large Bandwidth section, para. 1). Third, virtual reality "not only present(s) sweeping experiences over distance and time, but also hold(s) the promise of supplanting our present reality" (Virtual Reality section, para. 1). This is because Westera and Sloep predict that high technological devices like "surround-sound systems", "olfactory devices" and "electromechanical devices" will "provide users with breath-taking experiences measuring up to or even surpassing the experiences of real life" (Virtual Reality section, para. 1).

This development in the field of technology, and the boom of information technology and the Internet, calls for implementing these advancements in education. These calls are highly supported by the needs of learners for new educational systems that fit their busy schedules and meet their needs for a flexible, financially suitable, and yet very high quality programs. According to Gerrity (as cited in Nasseh, 1997), the opening of New York State's Empire State (NYSES) College was mainly to respond to the need of many students who cannot attend regular, on-campus classes. Although the classes were not different from the courses offered via traditional classes, there was "a greater flexibility regarding degree requirements and time limitations than was characteristic of tradition-based degree programs" (Gerrity as cited in Nasseh, 1997).

Nasseh (1997) pointed out several reasons that helped the adoption of these changes toward non-traditional education. These included

rapidly escalating costs of traditional resident education, interest in informal and nontraditional education, an increasingly mobile American population, the growth of career-oriented activities, necessity of learning new competencies, public dissatisfaction with educational institutions in general and the early success of Britain's Open University. (Gerrity, as cited in Nasseh, 1997, p. 8)

A Brief History

According to Matthews (1999), the first distance education courses were offered in Great Britain in 1840. Matthews explained that it could be traced back to shorthand instructions that Sir Isaac Pitman, the English inventor of shorthand, used to send by mail to his learners. Perhaps it did not involve the technology that is used today; however, it had the same philosophy of any time, any where education.

About three decades later, in 1873, this kind of correspondence education appeared in the United States for the first time when Anna Ticknor established a society that offered correspondence courses to women to study at their homes without a need to attend the education institution. Teaching and communication between students and their teachers took place via printed materials through the mail. In the course of 24 years, this society had provided education through correspondence to more than 10,000 students (Nasseh, 1997). Although the first officially recognized correspondence classes were offered by Chautauqua Institute in New York in 1883, the International Correspondence Schools (ICS) was the most famous at the time (Ewing, n.d.).

It was not until 1915 that correspondence education started to broaden and had its own frame. This took place when the National University Extension Association (NUEA) started to address issues like "necessity of new pedagogical models and new national level guidelines, such as university policies regarding acceptance of credit from correspondence courses, credit transferal, and standard quality for correspondence educators" (Nasseh, 1997, para. 4).

A new technology began to take place by the introduction of instruction through radio between the World War I and II. Nasseh (1997) pointed out that although 220 colleges, universities and school boards had been given licenses to use radio instruction, "only one college-level credit course offered by radio and that course failed to attract any enrollments" (Atkins, as cited in Nasseh, 1997, p. 6). Televised instruction started to be another new option for correspondence education right after the World War II.

More instruction delivery tools like "videotape, programmed instruction, television, telephone, and other multimedia teaching and learning" (Nasseh, 1997, para. 11) were introduced later in the 1960s, especially after the Correspondence Study division became the Division of

Independent Study. Some of main changes that took place in the 1960s, according to the National University Extension Association website (2002), involved radio in activities like "the Educational Telephone Network, the Subsidiary Communications Authorization (SCA) signal, and the National Center for Audio Experimentation" (n.d.), and it was in 1969 that WHA-TV became the first educational television station to win an Emmy award (National University Extension Association, n.d.).

A great step in distance education was made in Britain by the establishment of the Open University in 1970. In fact, the idea behind the Open University had been planted in 1926 in the BBC by the educationalist J. C. Stobart who, in a memo for a program on the BBC, talked about a "wireless university." Several proposals had been written through the years until the first actual preparation for the Open University took place in 1969 (Open University website, 2006). It was nearly around the same time when the first Open University in the United States, the New York State's Empire State (NYSES) College started functioning in 1971. The courses offered were not much different from the courses offered via traditional classes.

Cable and satellite television were introduced into distance education at the end of the 1970s and the beginning of the 1980s. Some of the educational centers that conducted experimentation with cable television were "Pennsylvania State University's Pennarama Network, the for-profit Mind Extension University, the University of Missouri CLAs system, and the Electronic University network, and the International University Consortium based at the University of Maryland" (Wright as cited in Moore, 2003, p.11).

The 1990s witnessed computer-based distance education and the appearance of complete online programs with a separate independent administration. An example of this was the Online Campus of the New York Institute of Technology (Moore, 2003). Although computer-based

education appeared as a phenomenon in the 1990s, the origins go back to 1969, Moore argues, when university, military and defense contractors were linked via network set up by the US Department of State. In the 1970s, the PLATO project at the University of Illinois appeared, more of an example of computer-assisted instruction than online teaching, and allowed a number of sites to communicate via dial-up and dedicated connections, giving credence to the idea of an electronic network form of instruction (Moore, 2003).

The new millennium brought and is bringing advancement in the field of education technology and distance education. High-speed Internet (Internet 2) brought a lot to the field of education and universities. In 2001, it connected "180 US universities; 78 corporate partners, sponsors, and members; some 50 affiliates; 10 U.S. government agencies; and over 30 organizations outside the United States" (Moore, 2003, p. 17). According to Moore, the appearance of such high-speed Internet came along with emerging virtual universities like "Jones International University, Western Governors University, University Phoenix Online and Capella University" (p. 18). Related to the virtual universities, there is an innovative idea of "Virtual Learning Company," which was introduced by Westera and Sloep (2001). While students in either conventional or non-conventional classes learn and get educated to be ready for work that will come afterwards, the Virtual Learning Company presents a real work environment in which the educator is an in-company training coordinator and the students are employees that "take up professional roles and run the business" (Westera & Sloep, 2001, The Virtual Learning Company section, para. 1). The new idea of a virtual learning company shortens the gap between academic learning and the real work environment that "closely resembles the students' future workplace" (Westera & Sloep, 2001, The Virtual Learning Company section, para. 1).

Face-to-Face vs Distance Education

There are different points of view regarding whether traditional face-to-face education is the kind of education that should be used or whether distance education will add to or even do a better job than traditional education. Shank (2005) argues that one should not be better than the other as it is "primarily course design and teaching quality that make instruction good or less good, not the medium used for teaching and learning" (p. 5). He also pointed out that educational institutions make use of the unique features each has to make them both more effective. For example, as it is easier in an online course for students to contribute in giving responses due to time constraints in face-to-face classes, departments make use of some online components with their face-to-face classes.

There are many studies that focus on how distance education is perceived and compare that to traditional face-to-face education. In a study on university professors in Israel, Kurtz, Beaudoin, and Sagee (2004) studied the self-perception of faculty who started integrating online teaching, and they compared the findings to a previous study conducted by Beaudoin (2002). The study was conducted on professors in Bar-Ilan University, the third largest university in Israel and Levinsky College (the largest teacher training college in Israel). In the Kurtz et al.'s study, the teaching experience of 19 participants measured by years of teaching experience was investigated. The study showed that 74 % of the participants had more than 10 years of experience in classroom teaching but only 2-5 years experience in online teaching. Only one of the participants had online teaching experience of more than 10 years. According to the study, 42% of the participants found the integration of both (face-to-face and online) very "helpful for a successful teaching-learning process" (p. 5).

In a similar study on faculty members from the State University of West Georgia conducted in 1999, McKenzie, Mims, Bennett, and Waugh (2000) found that 40% of the 70 participants, who were mainly faculty members and a few administrators and staff members, prefer a combination of both environments.

Thirty-two percent of the participants in Kurtz et al.'s (2004) study claimed that they had a very high enrollment (more than 100 students) in each of their online classes while 42% stated that they had fewer than 25 students in each of their online classes. Among the study findings, more than 50% of the participants found more communication between them and their students was achieved through online courses than face-to-face courses. This is because of the *any where any time* feature of the online classes, which makes it convenient to meet at different times. On the other hand, it was found in the study that faculty spent more time when teaching online. This finding, that time could be an obstacle too, was also found in a study conducted by Rockwell, Schauer, Fritz, and Marx (1999), where 69% of the participants (207 faculty members and 30 administrators) categorized the time requirement as an obstacle to teaching via distance.

In Kurtz et al.'s (2004) study, more than 50% of the faculty participating in the study showed more satisfaction in online teaching, while less than 30% of the participants showed more satisfaction with classroom teaching. On the part of the students in the study, percentages were different. The number of students who were satisfied with online learning was equal to the number of students who were equally satisfied with both modes (online and face-to-face), 35% percent each. The remaining 30% of students were more satisfied with the classroom face-to-face mode.

Among the factors leading to the satisfaction of the faculty who teach online in Kurtz et al.'s (2004) study is "the positive impact on the self-directed learning of students, multiple

interactions and intensive dialogue with students" (p. 9). However, the faculty members think their colleagues perceive online teaching as somewhat low. Thirty-five percent of the participants think that most of their colleagues consider online teaching less important, 30% think that their colleagues consider it equal to face-to-face learning and 29% think their colleagues are indifferent to online classes. Only one participant thought that colleagues consider online teaching more important than face-to-face teaching.

In Kurtz et al.'s (2004) study, 33% of the faculty members believe that their students are satisfied more with their online classes. A similar percentage of faculty members think that their students are equally satisfied with their online and face-to-face classes. Twenty-nine percent think that their students preferred face-to-face classes. Students who preferred online classes liked the flexibility it has and continuous feedback they get from the professors. On the other hand, students who preferred the face-to-face format did not like "the lack of personal interaction with faculty, [and the] poor technical support" (p. 11).

Kurtz et al.'s (2004) study also investigated the achievability of learning outcomes of online and face-to-face courses. Fifty-two percent of the faculty believed that the achievability of learning outcomes is the same in online and face-to-face modes and only 5.9% of them think this achievability is lower in the online mode. Forty-one percent believe it is higher in the online mode.

There is a more positive attitude toward the online mode of teaching among the participants Kurtz et al.'s (2004) study. Kurtz et al. ascribe this to the familiarity and experience of the participants in teaching in online mode. In a question about whether changes have occurred with the more experience and familiarity with online teaching, 53% agreed to the positive change.

Difficulties of Applying Distance Education

There are many difficulties that face distance education.   Miller and Lu's (2002) study targeted the non-traditional students who take online courses for the first time. This study focused on college students aged 18-24, who are new to the university, multi ethnic, or students who have some kind of disability. Miller and Lu thought these students were more likely to face problems with their online courses. The study, which covered 100 members of an on-line teaching support network, identified several barriers that students faced with their online courses. Among these is the unfamiliarity with technology. This was accompanied by the fact that the students had never taken an on-line course before. The absence of resources, online support and social support systems are more barriers that made it even harder for students to make it through successfully.

While these are serious problematic issues for a lot of new students, there is the barrier of teaching staff expecting students not to have such problems. This expectation led to many problems in instruction delivery because the professors may have misjudged the technical knowledge the students bring to the class. On the other hand, being busy with family, work and other commitments, many of these students taking online courses did not have the time to discover technology on their own by "playing around with technology and with the subtext of on-line classes" (Miller & Lu 2002, p. 10). Finally, the study found that many of the online courses were not made to accommodate many of the students with special needs. For example, some visually impaired students had to deal with online courses that were designed for those who have no problems with vision, and no audio recordings of lectures were available.

There are other challenges that are not as much related to issues with technology like those Miller and Lu (2002) addressed. Shank (2005) pointed out five of these challenges. The

first is the quite common idea that online courses are not as good as traditional face-to-face courses. The second is that instructors worry that some of their courses cannot be taught online. The third is a common concern about how much interaction among students or between students and the instructor can be established in an online class. The fourth is the worry about the difficulty of the system and technology part of online courses. The last challenge is the preparation for teaching online which seems more difficult than traditional face-to-face teaching to many instructors.

<div align="center">**Attitudes toward Distance Education**</div>

Attitudes toward distance education take different directions. The following is an overview that covers as many of these directions as possible. Addressing the issue of teachers' adjustment to technology and overcoming cultural mindsets, Baker and Baker (2005) believe that the cultural mindsets (i.e., fixed attitudes that people have) predetermine their response and their ideas about new changes. Speaking of the involvement of technology in education, the authors pointed out some of the questions that had been raised when the concept of using the Internet as a teaching tool started. Some of the responses include "How can one create a classroom without a physical classroom?" or "How can students work together as a group when some of them may not even reside in the same time zones?" (p. 153). Thus in societies where traditional face-to-face education is the norm, it has been hard to accept the new concept of distance education.

This inclination of many educators not to believe that distance education works was addressed by Connor (1989), who pointed out that one of the challenges facing distance education is working with faculty and administrators who are campus-based and do not have very positive attitudes toward teaching online as they are in "doubt that distance education really does, or even can, work" (p. 3). The reasons behind this doubt lay in the fact that they either are

not sure about the validity of distance education as educational methodology, or they do not believe that the advantages, if there are any, are significant.

Some educators have attitudes that are not completely resistant to the idea of using distance education. They believe in the benefit of utilizing distance education. Yet, they also believe that there are many negative consequences that should be taken in consideration. Westera and Sloep (2001) believe that the involvement of technology in education will lead to many positive changes. However, they also predict some problems in the future. One of these problems is the decrease of the human's function in education. According to Westera and Sloep, using distance education will "affect the intake, monitoring and competence assessment, the validities of which are essential" (Clipped Human Functioning section, para. 1).

The second problem, identified by Westera and Sloep (2001) lies in the high abundance of information and knowledge offered through technology when education is offered online. While this seems positive, it also threatens the "educational need for knowledge reproduction" (The Overwhelming Abundance of Facts section, para. 1). Educators may make use of this abundant availability of knowledge so that much focus is to be put on skills and competence instead of completely focusing on the reproduction of knowledge. However, the abundance of available knowledge leads to very little of it at the individual's disposal, which is really needed to "act as a conceptual frame of reference" (The Overwhelming Abundance of Fact section, para. 2).

Westera and Sloep (2001) offer that the abundance of facts and information in an educational environment in which the students are given control over their own learning leads to another problem in which students are "disorient[ed] within an inconceivable sea of facts" (Freedom Against Quality section, para. 1). Westera and Sloep believe that educators in the age

of information technology should find a balance between giving students control over their learning and their involvement when needed to guide the students. They also believe that the Virtual Learning Company is a sufficient example of such balance because students get involved in a real work environment in which they choose the roles that are suitable for them. Yet, they are still supervised and coordinated by the educator. Westera and Sloep also believe that fast growing knowledge will make it difficult for education institutions to create all the programs that meet the also growing various needs of students.

History of Distance Education in the Middle East

Distance education in the Middle East can be categorized into four stages (Alsunbul, 2002). In the first, distance education institutions used to send study materials to the students by mail. This sort of correspondence was used through the 1960s. A good example of this mode is the Arab University of Beirut, which still uses this mode in some departments even at the present time.

The second stage was marked by the use of radio and television in addition to the printed material. This mode of education was and is still used in Arab countries like Sudan, Egypt, Syria, and Saudi Arabia. This mode of teaching had the most effect in countries like Saudi Arabia, where it provides a great opportunity for thousands of female students who, according to the law in Saudi Arabia, are not allowed to be taught by male teachers in face-to-face courses.

In addition to the use of radio and television, in the third stage, which started with Al-Quds Open University in 1998, there was the use of more kinds of multimedia tools like computers, CD-Rom and the audio-cassettes. It is in this stage that the notion of distance education started to gain popularity in the Middle East. Many other open universities opened in Kuwait (Arab Open University), Egypt, Libya, and Algeria. Even though these were opened in

the age of the World Wide Web, "the internet, computer, mediated communications, video conferencing and virtual classroom, is somewhat limited" (Alsunbul, 2002, p. 66).

Alsunbul (2002) believes that the fourth stage is the creation of the Arab Network for Distance Education, which was established in 1997. This network, which has gained the "membership of sixty institutions working directly or indirectly in distance education", is a non government organization that is limited to "conduct[ing] some training and conferences and has a long way to go to stand solidly on its feet" (Alsunbul, 2002, p. 67).

Overview of Current Distance Education Institutions in the Middle East

Distance education institutions in the Middle East can be divided into three groups: traditional universities that offer distance education in addition to the traditional courses they offer, distance or open education institutions, and finally a virtual university (Mohamed, 2005). Cairo, Alexandria, Assiut, and Ain Shams universities in Egypt, Juba University in Sudan, and Al-baath University in Syria are examples of the institutions that offer both traditional and distance education (Mohamed, 2005).

Examples of the education institutions that are solely dedicated to distance education include: the Higher Institute for Continuing Education, in Tunisia; Open University in Libya, Al-Quds Open University in Palestine and the Arab Open University in Kuwait, which was established in Kuwait in 1999 (Mohamed, 2005). The only virtual university in the Middle East is the Syrian Virtual University which was established in 2002 (Mohamed, 2005).

Al-Quds Open University in Jerusalem, Palestine, which was established in 1991, grants Bachelor's degrees in Arts and Sciences in fields like humanities, social sciences and sciences. Mazawi (2000) pointed out that this university offers its services to nine different regions around the country including West Bank and Gaza Strip, in which people have no other access to higher

education. Not only can people at home benefit from the education offered by the Open University, "some Palestinian and Arab security prisoners held in Israeli prisons, especially those sentenced for longer periods of confinement [can benefit too] " (Mazawi, 2000, under Marginalized Groups, para. 2).

The limitation of the programs being mainly directed to the Palestinian cities put some limitation to the functionality of Al-Quds Open University (QOU). However, it is considered a very good model for the single-mode distance education universities in the Middle East as it took distinctive steps to improve its distance education services. In addition to the production center in Amman, Jordan, two branches of the university were established in United Arab Emirates (in 1995) and in Saudi Arabia (in 2002) (Al-Quds Open University Website, a).

The QOU provides consultation to many other Arab distance education institutions as it also has taken many steps toward more advanced distance technologies (Mohamed, 2005). For example, it has its own studio center in which "it produces interactive videodisks, computer software, as well as traditional audio-visual materials like transparencies, slides, wall pictures, maps and three-dimensional objects [as it] also includes a complete animation unit" (under A Glimpse of Distance Higher Education Unit, para. 4). The Arab Open University in Kuwait is another model for a more qualified distance education institution in the Arab region as it adopts "broad educational goals, [and as it] was established under the Arab Gulf Program for United Nations Development Organizations (AGFUND) (Mohamed, 2005, under A Glimpse of Distance Higher Education Unit, para. 5).

In other cases of distance education in the Middle East, foreign distance education institutions are involved. An example of this involvement is pointed out in a study in which Shaker (2000) investigated the status and needs of distance education in Bahrain. Although the

information can be outdated somehow as the study focused on the situation and needs of distance education in the Bahrain for the year 1997/1998, it still gives a picture of distance education that has not much changed in the region at the present time.

In 1997/1998, about 36 institutions from 10 foreign countries provided distance education to about 800 Bahraini students (Shaker, 2000). Programs are given through a local representative, which is either the Education Services Office or a private education institute. Education Service Offices facilitate the registration and admission process, provide the educational, and study materials, help students in the process of travelling for the test to either the foreign institution or to the examination center assigned by that institution. Private Education Institutes seem a little different regarding what they do and they also differ among one another depending on the agreement with the foreign institutions they represented. Some of these private education institutions only make educational and learning materials available and the students have to "study by themselves or hire teachers to help them understand difficult areas of their subjects" (Shaker, 2000, p. 5).

Attitudes toward Distance Education (Middle Eastern Faculty)

In a study on the motivation and inhibiting factors affecting the use of web-based instruction at the University of Qassim in Saudi Arabia, Al Saif (2005) found out that the faculty (213 faculty members in both University of Qassim campuses) generally showed positive attitudes toward the use of technology. They believed that in addition to the flexibility and solving the problem of scheduling, technology provides effective teaching strategies.

One of the findings of Al Saif's (2005) study was that age and rank of the faculty members, access to the computer and Internet, administrative and technical support have influenced their motivation to use web-based instruction. Some of the hindrances facing the use

of web-based instruction were the weak Internet infrastructure, unavailability of support and distance education training, and concern for the quality of the web-based instruction courses.

In Bahrain, there is a similar concern about the quality of distance education courses. Despite the fact that there are hundreds of foreign university programs that are offered at a distance through local education service offices or private education institutes, the certificates the students obtain are not officially considered to be at a higher education level. They are usually issued to certify that someone had attended a certain program; therefore, most of these certificates have a very low economic and educational value for people seeking jobs or further higher education (Shaker, 2000).

Alsunbul (2002) pointed this out as a serious problem that also faces students who obtain their distance education degrees from countries outside the Middle East. These certificates "are not recognized or accepted either by their government or the private sector, and in most cases universities do not allow entry to these students in order to pursue their graduate level studies" (p. 70).

Shaker's (2000) study pointed out several reasons that encourage students to decide to study at a distance despite the fact that these students know that their certificates will not be considered for a higher degree or a future job. One strong reason is the limited number of the graduates of high school who are accepted to study in conventional Bahraini Universities. Those who graduate from high schools with low scores find it easier to study via distance especially as the admission conditions in general are more flexible in institutions offering distance education.

Another reason is the high cost of conventional learning. About 54.7 % of the students interviewed strongly agreed and 24.5 % agreed that "the students cannot afford the high cost of conventional (face-to-face learning)" (Shaker, 2000, p. 65). This fact, combined with the fact

that students cannot keep their jobs and still go for their traditional education, explains why most of the employees who want a university degree choose distance education. Shaker (2000) pointed out that 87.5 % of those who study at a distance are employed. This is why the University of Bahrain "has offered some of its programmes on a part-time basis, although at much higher prices" (Shaker, 2000, p. 67) so that students do not need to take a leave from their jobs to complete their education.

A high percentage of those interviewed in Alsunbul's (2002) study considered the openness of distance education a very important factor for them to choose distance education. By openness, the study refers to flexibility in admission and other procedures. For instance, Bahraini students in the distance education institutions were accepted into their programs even if their high school certificates were more than two years old (conventional universities accept high school certificate only within two years after graduation from high school). They were also allowed an unlimited number of years to finish their degrees (Alsunbul, 2002).

Difficulties Relating to Distance Education in the Middle East

Establishing distance education in the Middle East has not progressed fast enough to meet the quick advancement in other developed countries. Alsunbul (2002) presented five problematic issues that face distance education improvement in the Middle East. The first, Alsunbul believes, is a problem of vision. In other words, it is hard for the policy maker and those who are responsible for education in the Middle East to consider distance education while their focus is all on the basics. This becomes even more difficult as "the traditional philosophy of education is reigning, unrivaled and there is no clear vision about the philosophy, functions, and *how to* of distance education" (p. 69).

The second issue is a governmental one. This includes factors like licensure, accreditation, and subsidy. In most Arab countries, education, like many other fields, is governed and controlled by the state. As has been mentioned before, many countries do not recognize, then do not accredit, or agree to give licensure to, distance education institutions. Governmental agencies that permit the opening of distance education institutions, offer only very few state subsidies. The third issue is related to the use of information technology in distance education. Open and distance educations in the Middle East, even at the present time, still do not utilize information technology tools like multimedia, hypermedia, e-mail, on-line discussions, virtual classrooms, etc. The only forms of technology they are using are printed materials (these are the ones developed by and used for traditional universities), radio broadcasting, television, overhead projectors, or audio/video tapes. This absence of the new information technology is connected to the absence of infrastructure that is needed to operate the distance education delivery smoothly.

The lack of information and communication technologies used in distance education institutions is an important issue. Bubtana (2003) believes that attempts to develop non-conventional institutions like the open universities help improve such institutions. However, the absence of information and communication technologies made these open universities "easily be described as conventional correspondence universities." (Bubtana, 2003, p. 59). The same idea was adopted by Nasser and Abouchedid (2000), who studied the attitudes of schoolteachers and directors toward the value of implementation of distance education using Roger's diffusion model. They believe that change toward distance education is hindered by the fact that "telecommunication and distance education have not found their way into the remotest areas of many Arab countries" (Nasser & Abouchedid, 2000, para. 8).

The fourth issue is quality assurance. This is a crucial issue for the distance education institutions in the Middle East because these institutions do not have "national standards to assure the academic quality of all processes conducted by the university [and instead they] often achieve quality standards for their academic activities such as course production, evaluation and delivery by a trial and error procedure" (Alsunbul, 2002, p. 73).

Realizing the need for assuring the quality of their distance programs, some distance education institutions try to create cooperation and affiliate their programs with some international institutions. For example, the Arab Open University (AOU) has established affiliation with United Kingdom Open University and the Syrian Virtual University (SVU) has signed agreements with many western Online Universities in the USA, Canada, Europe and Australia. Affiliation with these international institutions covers aspects like validation of the materials or licensure and accreditation of the programs (Mohamed, 2005). Yet, Mohamed thinks that by creating these agreements and affiliations, AOU and SVU try to "avoid developing their own programs and their recognition and validation [because they will need] to invest a great deal of effort to become equivalent to its counterpart in the developed countries" (The Quality of Distance Higher Education in the Arab Region section, 2005, para. 1).

By establishing a Quality Control Department, Al-Quds Open University (QOU) has made distinctive steps toward more quality in its education. Some of the objectives of the department are:

- Competing with other international distance education institutions which have achieved very high quality in education they offer.

- Encouraging more student enrollment in a time when there is an urgent need for more higher education institutions and very low trust of distance education institutions (Al-Quds Open University, b).

Mohamed (2005) thinks that, although the Quality Control Department makes the QOU the only distance education institution in the Arab region with such a department, it is still "in development stages, [and it will face many difficulties as] the Arab societies are skeptical of the practices of distance education programs believing that it may be a process of teaching and learning by correspondence and not an innovative approach to instruction" (The Quality of Distance Higher Education in the Arab Region section, 2005, para. 6) .

Some educators think that creating a successful distance education can be achieved through improving the distance education quality rather than justifying or discussing how important it is. Addressing the issue of the importance of creating new learning environments especially in the less developed countries, UNESCO's (1998) report focused on the importance of building distance education facilities that are "capable of bridging distances and developing high-quality systems of education, thus serving social and economic advancement and democratization as well as other relevant priorities of society" (Under The potential and the challenge of technology, para. 3).

According to Alsunbul (2002), most of the teaching staff at the distance education institutions in the Middle East is part-time teachers who work in the conventional institutions and have not been trained for the distance teaching experience. They bring their face-to-face experience and apply it without considering the new teaching environment where students do not attend class regularly or take classes at different times or days of the week. Many of these students could also be in different sites or states and the teaching staff needs to find new ways of

connecting them. In addition to this, Alsunbul thinks, these teachers are not different from other people in the society who believe that distance education is "a second class form of education" (2002, p. 73).

Lack of preparation for distance education is an issue that could face students, too. Students in the Middle East live in Freire's "banking concept" environment where they have to rely on the teacher, as he/she is the controller and knowledge carrier. Students only receive the knowledge, commit it to memory, and rarely question it. Eickelman (as cited in Hilgendorf, 2003) ascribed this phenomenon to the deep-rooted Islamic education where "impeccable recitation became the benchmark for success, and the spirit of questioning (even among the students themselves) became not only unnecessary but a hindrance to successful memorization" (p. 65). With the teachers and students unprepared, it will be difficult for them to adopt and deal with the new distance education effectively.

The cost of distance education is the last issue Alsunbul (2002) pointed out. Since the technology must be kept up to date, many Arab states see distance education as not cost effective. As it is the state that controls education in the Middle East, it is still very hard for the private sector to start distance education institutions as the state sees education as not "an arena for business" (Alsunbul, 2002, p. 75).

Looking at some of the dual mode universities in the Arab region (like Ain-Shams University Open Education Center and Cairo University Open Education Center in Egypt, Al-Baath University Open Learning Center in Syria, and Center of Distance Education in Juba University in Sudan), Mohamed (2005) points out the following problems:

- The universities only offer credits that are usually offered in the traditional face to face system and not fully "up-graded courses for professionals [which means that the

openness] in terms of access has been somewhat limited in so far as the courses require traditional entry qualifications" (Glimpse of Distance Higher Education section, para. 1).

- There is no obvious use of new communication technologies, and traditional printed materials and regular meetings with the professors are commonly used.

- For assessment, students are asked to come for a summative paper-based test at the end of the semester, which is the kind of assessment used in face-to-face programs in traditional universities. No formative assessment is used.

- Theoretically these distance education centers are available to all the Arab students who can register for classes from whatever country they are in. However, in practice this is not possible due to lack of distance education technologies like the Internet.

These problems also apply for many of the single mode universities in the Middle East. Mohamed (2005), giving examples of three distance education (single mode) universities in Tunisia, Libya, and Algeria, pointed out that they are still relying primarily on printed material and correspondence in their delivery method. Their objectives are also very much nationally oriented and do not suit applicants from other Arab countries.

Although the Arab Open University in Kuwait represents a better model for distance education institution in the Arab region, it has very limited enrollment due to the English language proficiency requirement and the high registration and study fees (Mohamed, 2005). In addition to that, more limitations were pointed out by the UNESCO (2003a) report which states

Although the AOU promises in its mandates to "promote an open system of learning … that provides … opportunities for … professional development and lifelong learning", it still requires the students enrolled to have completed secondary education. This being the pre-requisite for enrollment at all

universities in the region, it is still to be seen if the AOU does significantly increase access. Furthermore, the AOU relies heavily in its programs and instruction materials on the UK Open University, contributing a little to the production of genuine material and the development of Arab Expertise in new technologies. (p. 8)

With the same policies, the Syrian Virtual University (the first virtual university in the Middle East which was established in 2002) faces the same problems of low enrollment (Mohamed, 2005). In addition, the agreements the university has with Western online universities to provide their programs to the Arab students creates a constraint by making "no contribution to the development of Arab Expertise in using new technologies for the development of genuine instruction materials" (UNESCO, 2003a, p. 8).

Some of the solutions for low quality assurance were suggested by Mohamed (2005), who thinks that there are four possible parties whose participation in the solution can be effective. The first are international organizations with educational activities in the Middle East, such as UNESCO and the World Bank who can offer these distance education institutions direct consultation or provide training for their staff.

The second are regional organizations like Arab Gulf Program for United Nations Development organizations (AGFUND), the Arab Bureau of Education for the Gulf States (ABEGS), and the Association of Arab Universities. Mohamed (2005) believes that these organizations can create "a pan-Arab agency that would have the responsibility of securing the quality of distance education region wide [and should have] active roles in sustaining the Arab Network for Open and Distance Education (ANODED)" (under A Vision for Ensuring the Quality of Distance Higher Education in the Arab Countries section, para. 4).

The third is a leading role that can be played by the Arab Open University and the Syrian Virtual Library. The direct help and consultations they receive from distance and open universities outside the Arab region should enable them to start their own quality assurance systems that can also reflect and benefit other distance education institutions in the region.

The fourth is the academics in the Arab region that should devote more time in researching the field of quality assurance. Mohamed (2005) thinks that quality assurance and accreditations are still untouched topics in the Middle East. Conducting research studies in these fields will provide "important developments in distance education quality assurance around the world to extend our knowledge and understanding of various quality assurance issues" (under A Vision for Ensuring the Quality of Distance Higher Education in the Arab Countries section,para. 6).

The absence of sufficient infrastructure was a main hindrance facing Syria when it opened the first Virtual University in the country. Castillo (2002) pointed out that it was an ambitious project in which Syria tried to liberate education from "a Soviet-style closed society to a more open, Western-oriented model" (para. 1) and in which the targeted students were not only Syrian or Arab students from other Arab countries but also foreign students who were "hungry … for knowledge about Islam and Islamic culture" (Minister of Higher education Hassan Risheh, as cited in Castillo, 2000, para. 4). The objectives of the virtual university were not achieved due to the weak infrastructure, represented by the limited use of Internet, which started to be used in 2000, and was only provided via two providers to 40,000 subscribers out of the 17 million people (Castillo, 2000).

Effective Distance Education for Middle Eastern Students

Applying distance education in the Middle East will expand the opportunities for students to complete their education especially for the disadvantaged who cannot join regular face-to-face classes. These will include high school graduates who cannot afford to join regular face-to-face classes, students from very remote and rural areas and those who have families and are obliged to work to support them and still want to finish their education.

Distance education can be utilized for training professionals in the field whether they are in-service teachers or company employees. This is especially vital to "meet national demands since the traditional system of training is falling far behind the needs dedicated by the rapid expansion of economic activities and social services" (Alsunbul 2002, p. 64). In addition to the academic progress these professionals and employees achieve, they have the opportunity to do it without having to leave their careers.

Distance education in the Middle East and especially in the Arabian Peninsula is very important to respond to the growing population of female students who have to follow "a set of legal and social controls imposed on women's mobility and opportunities" (Mazawi, 1999, para. 3). Male students are more able to go abroad for their education while female students are confined to the local education institutions. Mazawi (1999) pointed out that this has led to a high female student ratio in distance classes compared to that of male students. In 1996, for example, there were 1.18 women in Saudi Arabia for each man, 1.35 women in Kuwait, and 1.87 in Bahrain. The highest ratio in the same year was for UAE with 6.08 women for each man. What makes distance education critical in these countries is that many local institutions in the Middle East are still gender specific. Thus, female students do not have the same opportunities in taking many of the fields that can be taken by men such as engineering.

The same idea was stressed by Mazawi (2000) who believes that studying at a distance will be the perfect way to " accommodate increased access for women and respect for Islamic customs regarding segregation of the sexes and woman's traditional role as a wife and a mother" (para. 4). Perhaps this is really needed as the Intisab, a system in which students in some programs may be allowed to register for classes without a need to attend classes, "has not successfully met the increasing demand for higher education opportunities" (para. 4).

Summary

This chapter discussed education in general and distance education specifically in the Middle East. In addition to that, the chapter presented a brief history of distance education from the early beginnings to the current years in the new millennium. This chapter specifically addressed the following main aspects: education in the Middle East, a brief history of distance education, challenges facing distance education, a comparison between face-to-face and distance education, distance education in the Middle East and stages of its development, difficulties relating to distance education in the Middle East, and the potential effectiveness of distance education for Middle Eastern students.

Chapter 3

RESEARCH METHODOLOGY

Introduction

The main objective of this research was to investigate the attitudes of Middle Eastern faculty toward the application of distance education in the Middle Eastern universities. A comparison was conducted between faculty of state universities in the Middle East and in the United States. The research design was composed of a survey in English that was used with the participants from the United States. An Arabic translation of the survey was used with the participants from the Middle East.

Participants

The survey sample was composed of 139 participants (faculty members) from the Middle East and 126 participants (faculty members) from the United States. The sample participants from the Middle East were from Saudi Arabia, Kuwait, United Arab Emirates, Bahrain, and Yemen. Participants from the United States came from different state universities around the United States. For the Middle East, a list of the state universities was made for each of the five countries under the study. This was obtained from the Internet. In the same way, a list of the state universities in the United States was obtained from the Internet. The researcher sent the Arabic version of the survey to a large number of faculty members of the Middle Eastern state

universities in the five Middle Eastern countries. The researcher used only the surveys from the participants who met the study participants' criteria. The participants were represented by both male and female faculty members. The English version was sent to a large number of the faculty members at state universities in the USA. The researcher used only the surveys of the participants who met the study participants' criteria. In the US sample, the participants were both males and females, too.

Table 2

Distribution of Participants on the Study Area

	Level of Experience	Middle Eastern						USA	
		Yemen	Kuwait	Bahrain	Saudi Arabia	UAE	Total	USA	Total
elaM	elttiL	11	9	3	7	4	34	5	5
	egarevA	5	3	2	6	5	21	20	20
	hcuM	2	0	5	3	4	14	51	51
	Total	18	12	10	16	13	69	76	76
elameF	elttiL	6	11	8	3	7	35	9	9
	egarevA	5	6	5	6	3	25	14	14
	Much	2	2	1	3	2	10	27	27
	Total	13	19	14	12	12	70	50	50

Participants' Criteria

The participants from both the Middle East and the United States met the following criteria:

1. The participants from each of the five Middle Eastern countries and the USA participating in the study were a mixture of males and females.

2. All participants were randomly selected.

3. All participants have taught at the university level for a minimum of one year.

4. Participants in the sample from the Middle East were Middle Eastern faculty members who have never taught in an overseas country.

Study Instrument

To achieve the goals of this study, a survey was created. The survey consisted of three main parts. In the first part, the participants answered demographic questions about their gender, country of birth, nationality, university they are teaching in, number of years of experience, and their first language. There were also four questions to investigate their background familiarity with distance education. The data collected from the second part was used to measure the attitudes of the participants (i.e. state university faculty in the Middle East and in the United States) toward distance education. This part of the survey consisted of seven sections. It was composed of 42 items. A 5-level Likert-scale was used for each of these items. These levels were strongly agree, agree, neither agree nor disagree, disagree and strongly disagree. The list of items was put in a random order to guarantee the participants' attention while answering each item. The seven sections included in the survey were:

1. Attitudes toward the use of technology

This section consisted of nine items that were created to measure the attitudes of the faculty members in the state universities toward the use of technology in education and what difficulties could confront the faculty or the students.

2. Attitudes toward cultural and social factors

This section consisted of seven items that were designed to measure the attitudes of the faculty members toward the cultural and social factors that may have an effect on using distance education.

3. Attitudes toward economic factors

This section consisted of six items that aimed at measuring the attitudes of the faculty toward the costs related to the use of the distance education and whether this cost has an effect on either using or not using distance education.

4. Attitudes toward location

This section consisted of five items that measured the attitudes of the faculty toward the location, i.e., country, in which distance education is used.

5. Attitudes toward educational factors

This section consisted of four items that were designed to measure the faculty member's attitudes toward the effect of using distance education on some of the hidden curriculum educational values like punctuality, respect and the effect on students' ability to speak in front of others or the techniques they use in dealing with their assignments, etc.

6. Attitudes toward academic achievement

This section consisted of six items that aimed at measuring the attitudes of the faculty toward the academic achievement of the students in distance education and whether the students' academic achievement is better in a traditional face-to-face environment.

7. Attitudes toward policies

There were five items in this section which aimed at investigating the faculty attitudes toward the state policies related to distance education or to hiring policies related to applicants who have their degrees from distance education programs.

The third part of the survey was composed of 15 items that aimed at measuring the availability of distance education tools in the universities under study.

Field Test of the Study Instrument

The researcher conducted a field test of the instrument to determine the reliability and validity of the instrument. All those who participated in the field test of the instrument were excluded from the actual final study.

Reliability

To determine the reliability of the instrument, the researcher conducted a Cronbach's Alpha Coefficient on a sample of 51 faculty members representing all the countries covered by the study. Results showed that all the factors demonstrate very high reliability that range between 0.607 and 0.859 and the total Cronbach's Alpha Coefficient for the instrument was very high (0.976). Table 3 shows Cronbach's Alpha Coefficient for the total and for each of the instruments factors.

Validity

The researcher sent the survey to a group of faculty members in the United States and in the Middle East for suggestions on the items used. Twenty-one responses came back with comments and suggestions. Feedback from the faculty helped the researcher spot weaknesses in the questions used and identify questions that were not clear enough or caused some misunderstanding for the participants.

The researcher also used the internal consistency to determine the validity of the instrument. This was done on the same sample of 51 faculty members who were used in testing the reliability. Results showed that internal consistency was very high. It ranged between 0.529 and 0.918. See Table 4.

Table 3

The Reliability for the Study Instruments

Attitudes	Cronbach's Alpha Coefficient
Attitudes toward the use of technology	0.858
Attitudes toward cultural and social factors	0.690
Attitudes toward economic factors	0.607
Attitudes toward location	0.748
Attitudes toward educational factors	0.676
Attitudes toward academic achievement	0.698
Attitudes toward policies	0.859
Attitudes toward the availability of distance education tools	0.799
Total	0.976

Table 4

The Internal Consistency for the Study Instruments

Attitudes	Pearson's Correlation
Attitudes toward the use of technology	0.707
Attitudes toward cultural and social factors	0.529
Attitudes toward economic factors	0.678
Attitudes toward location	0.593
Attitudes toward educational factors	0.718
Attitudes toward academic achievement	0.816
Attitudes toward policies	0.579
Attitudes toward the availability of distance education tools	0.799
Total	0.918

Research Design

This study used a comparative study using survey. A random sample of state university faculty was taken from the Middle East population and was compared to another random sample of state university faculty in the United States. The comparison aimed at first describing the attitudes of faculty in the Middle East toward distance education and comparing it to that of faculty in the United States. The second was to investigate whether the lack or availability of distance education tools is related to the faculty attitudes toward the application of distance education. Gender and years of experience were considered in this study. In each of the two main groups, i.e. faculty in the Middle East and faculty in the United States, participants were

divided into subgroups according to gender and years of experience. This helped the researcher do a deeper analysis of the data.

Hypotheses

1. There are statistically significant differences between the attitudes of university faculty in the Middle Eastern state universities and the attitudes of university faculty in the USA state universities toward distance education.

2. There are statistically significant differences between the attitudes of the male and female university faculty toward distance education.

3. There are statistically significant differences in attitudes among the level of the experience (little, average, much) of state university faculty toward distance education.

4. In reference to attitudes toward distance education, there is a statistically significant interaction

    a. Between faculty country of work (Middle Eastern faculty or American faculty) and the faculty gender.

    b. Between faculty country of work (Middle Eastern faculty or American faculty) and the faculty experience (little, average, much).

    c. Between faculty gender and faculty experience (little, average, much).

    d. Among faculty country of work (Middle Eastern faculty or American faculty), faculty gender and the faculty experience (little, average, much).

5. There is a statistically significant correlation between the attitudes of faculty toward distance education and the availability of the required tools to integrate the distance education system in both USA and Middle Eastern state universities.

Data Collection

The researcher created a web version of the survey using SNAP software available at Indiana State University. A link to the Arabic version of the survey was e-mailed to the e-mail accounts of the faculty in the Middle Eastern state universities. In the same way, a link to the English version of the survey was e-mailed to the e-mail accounts of state university faculty in the USA.

Procedures

The researcher obtained approval of Indiana State University to conduct the study by completing the Institutional Review Board (IRB) forms. Information about universities and the university faculty in the Middle Eastern Countries that participated in the study was obtained from the Internet. Information about the universities and the university faculty in the United States was obtained from the Internet. On the top of the first page of the survey, the main purpose of the study was provided. A link to the Arabic version of the survey was sent via e-mail to the Middle Eastern faculty participating in the study and another link to the English version was sent via e-mail to the US faculty. While there was no known risk associated with participating in this study and the risk of any identifiable information being obtained by the researcher had been minimized, the data collected was secured with a user name and a password to which only the researcher had access.

Statistical Analysis

The data that was collected by the second part of the survey, i.e., about attitudes, was used for the hypothesis 1 through 4. These hypotheses included eight dependent variables (i.e., attitudes toward the use of technology, cultural and social factors, economic factors, location, educational factors, academic achievement, policies, and availability of distance education tools

in the universities) and three independent variables: country of work (Middle Eastern or American), gender (male or female), and level of experience (little, average, much), which was decided by calculating the mean and standard deviation for the participants' years of experience so that little is the mean minus 1 standard deviation, much is the mean plus 1 standard deviation, and the average is what comes in between. This was done for the whole group and then was applied for the different levels of experience.

Table 5

Determination of Standard Deviation for the Whole Group

Experience Group	N	Minimum	Maximum	M	SD
Years of Experience	265	1.00	51.00	11.37	3.60

Table 6

Determination of Experience Levels

Experience Group	N	Minimum	Maximum	M	SD
Little (Years of Experience)	83	1.00	7.00	4.67	1.41
Average (Years of Experience)	80	8.00	14.00	10.89	2.05
Much (Years of Experience)	102	15.00	51.00	25.22	8.29

The proper statistical analysis was the MANOVA 2 X 2 X 3 analyses. The comparison among the groups was collected based on the means and standard deviations that were obtained for all the groups. The higher score referred to more positive attitudes.

As for the fifth hypothesis, the researcher tested the relationship between the total score of the faculty attitudes (the second part of the survey) and the total score of the availability of

distance education tools in the universities (the third part of the survey) by conducting a Pearson correlation test. This test was conducted twice, one for the faculty in the Middle East group and the other for the faculty in the United States group.

Summary

This chapter addressed the research methodology of this study. The researcher presented a description of the demographics of the participants and their distribution on the study area and the criteria that determined their participation in the study. The researcher presented a description of the study instrument and the field test that was conducted to determine the reliability and validity of the instrument. This chapter also included the research design and statistical tests used to analyze the data.

Chapter 4

RESULTS

Overview

This study investigated the attitudes of Middle Eastern faculty toward the application of distance education in the Middle Eastern universities as compared with the attitudes of faculty members of USA state universities. Through an online survey, faculty members from the five Middle Eastern countries (Yemen, Kuwait, Bahrain, Saudi Arabia, and the United Arab Emirates (UAE) and faculty members from the USA participated in the study in the spring semester of 2009.

Demographics of the Participants

The demographics of this study showed that 139 faculty members participated from the Middle East. Thirty-one of these participated from Yemen, 31 from Kuwait, 24 from Bahrain, 28 from Saudi Arabia, and finally 25 from United Arab Emirates. Among the Middle East participants, 70 were female faculty members and 69 were male faculty members. As for the faculty members participating from the United States, 126 participated in the study, 50 of whom were female faculty members and 76 were male faculty members (See Table 7).

Table 7

Demographics of the Participants

	Level of Experience	Middle Eastern						USA	
		Yemen	Kuwait	Bahrain	Saudi Arabia	UAE	Total	USA	Total
elaM	elttiL	11	9	3	7	4	34	5	5
	egarevA	5	3	2	6	5	21	20	20
	hcuM	2	0	5	3	4	14	51	51
	Total	18	12	10	16	13	69	76	76
elameF	elttiL	6	11	8	3	7	35	9	9
	egarevA	5	6	5	6	3	25	14	14
	Much	2	2	1	3	2	10	27	27
	Total	13	19	14	12	12	70	50	50

Test of Homogeneity of Variance

In order to make valid statistical comparisons between groups, it is important to first assure that the homogeneity of the groups takes place. In other words, there must be an assurance that the variance in one group reasonably approximates the variance in the comparison group. Levene's test of homogeneity of variance was used in this study to assess this assumption as a function of the SPSS program used to analyze this study's data. Levene's test was selected as it does not rely on the assumption that the underlying data is normally distributed. In Levene's test, a significant result will mean there is a violation of the assumption and that the variances for the samples are not equal. In that case, there will be a need to use other procedures that do not assume similarity of the variance. In the current study, Levene's test verified that the

assumption of homogeneity of variance was not violated. The results showed that there was no statistical significance.

Table 8

Levene's Test of the Variance

Levene's Statistic	df1	df2	Sig
.641	5	230	.736

Analysis of Research Questions

Results of First Four Hypothesis

To investigate the first four hypotheses, a multivariate ANOVA was conducted with country of work, gender, and the level of experience as independent variables and attitudes toward the use of technology, cultural and social factors, economic factors, location, educational factors, academic achievement, policies, and availability of distance education tools in the universities as dependent variables.

This analysis created four interactions and three main effects for each of the eight dependant variables:

1. The interaction between faculty member's country of work, gender, and level of experience.

2. The interaction between faculty member's country of work and gender.

3. The interaction between faculty member's country of work and level of experience.

4. The interaction between faculty member's gender and level of experience.

5. The main effect of faculty member's country of work.

6. The main effect of faculty member's gender.

7. The main effect of faculty member's level of experience.

The interaction between faculty member's country of work, gender, and level of experience. There was no statistically significant interaction between the faculty member's country of work, gender, and level of experience in any of the eight factors that affect the faculty member's attitudes toward the use of distance education (attitudes toward the use of technology, $F(9,230)=1.33$, $p=.221$; cultural and social factors, $F(9,230)=1.61$, $p=.114$; economic factors, $F(9,230)=.49$, $p=.882$; location, $F(9,230)=1.07$, $p=.384$; educational factors, $F(9,230)=.39$, $p=.937$; academic achievement, $F(9,230)=.37$, $p=.949$; policies, $F(9,230)=1.23$, $p=.279$; and availability of distance education tools in the universities, $F(9,230)=1.84$, $p=.062$) (See Tables 21 and 22). That means none of the study's independent variables (faculty member's country of work, gender, and level of experience) affect the interaction for the other two independent variables. Therefore, no additional analyses for this stage were needed.

The interaction between faculty member's country of work and gender. There was a statistically significant interaction between faculty member's country of work and gender in attitudes toward policies, $F(5,230)=3.10$, $p=0.01$, ($\omega^2=.063$). None of the other seven factors that affect the faculty member's attitudes toward the use of distance education were significant (attitudes toward the use of technology, $F(5,230)=1.25$, $p=.287$; cultural and social factors, $F(5,230)=.79$, $p=.557$; economic factors, $F(5,230)=1.37$, $p=.237$; location, $F(5,230)=.62$, $p=.688$; educational factors, $F(5,230)=.53$, $p=.752$; academic achievement, $F(5,230)=.37$, $p=.871$; and availability of distance education tools in the universities, $F(5,230)=1.68$, $p=.140$) (See Tables 21 and 22). To test the interaction between faculty member's country of work and gender in attitudes toward policies (which was the only significant factor), tests of simple main effects were conducted in order to examine the differences between the male and female faculty

members within each country of work. The male faculty members in UAE and Yemen had significantly more negative attitudes toward policies than the female faculty members in these two countries. On the other hand, there were no significant differences in the attitudes of male and female faculty members in any of the other countries (Middle Eastern and US) (See Tables 9 and 22).

Table 9

T-Test for the Differences in Attitudes toward Policies between Males and Females in Each Country of Work

Country of Work	*t*	*df*	*Sig*
Saudi Arabia	0.17	40	.859
Bahrain	1.04	29	.306
UAE	2.24	31	.032
Kuwait	0.42	38	.678
Yemen	2.70	37	.010
USA	0.17	142	.867

Tests of simple effects, followed by post hoc comparisons using Scheffé's were also conducted to examine differences in attitudes toward policies among the countries of work for each gender. In the male faculty members' sample, the faculty members in UAE, Yemen, Kuwait and Saudi Arabia had more statistically significant negative attitudes toward the policies than the faculty members in the United States. Bahrain, on the other hand, was in between the United States and all the other Middle Eastern countries. In the female faculty members' sample, the faculty members in Bahrain, Saudi Arabia, and Kuwait had statistically more

negative attitudes toward the policies than the female faculty members in the United States. UAE and Yemen's female faculty members, on the other hand, were in between the United States and Bahrain, Saudi Arabia and Kuwait (See Tables 10 and 22).

Table 10

ANOVA for the Differences in Attitudes toward Policies among Countries of Work for Each Gender

Gender	Source	SS	df	MS	F	Sig
Male	Country of Work	437.87	5	87.57	17.09	.001
	Error	896.92	175	5.16		
	Total	38139	180			
Female	Country of Work	259.31	5	51.86	8.21	.001
	Error	897.36	142	6.32		
	Total	32071	147			

The interaction between faculty member's country of work and level of experience. There was a statistically significant interaction between faculty member's country of work and level of experience in attitudes toward cultural and social factors, $F(10,230)=2.13$, $p=0.02$, ($\omega^2=.085$) (See Tables 21 and 22). Tests of simple effects, followed by post hoc comparisons using Scheffé's, were conducted to examine differences in attitudes toward culture and social factors among the countries of work for each level of experience. In the sample of faculty with little experience, there were no statistically significant differences among faculty members in any country (Middle eastern and the US) toward the culture and social factors, $F(5,92)=2.25$, $p=0.06$. In the sample of the faculty with average experience, the faculty members in Saudi Arabia and

Yemen had more statistically significant negative attitudes toward cultural and social factors than those in the United States, the United Arab Emirates and Bahrain. Kuwait was in between these two groups. In the sample of the much experienced, Kuwait had more statistically significant negative attitudes toward culture and social factors than Yemen. All the other countries; i.e., Bahrain, Saudi Arabia, UAE and USA, were in between these two countries, i.e. Yemen and Kuwait (See Tables 11 and 22).

Table 11

ANOVA for the Differences in Culture and Social Factor among the Levels of Experience

Experience	Source	*SS*	*df*	*MS*	*F*	*Sig*
Little	Country of Work	120.74	5	24.15	2.25	.057
	Error	935.73	87	10.76		
	Total	31441	92			
Average	Country of Work	113.87	5	22.77	2.51	.035
	Error	880.82	97	9.08		
	Total	36636	102			
Much	Country of Work	128.91	5	25.78	2.81	.020
	Error	989.34	108	9.16		
	Total	45329	114			

Tests of simple effects, followed by post hoc comparisons using Scheffé's, were also conducted to examine differences in attitudes toward culture and social factors among the level of experience for each of the countries of work. There were statistically significant differences

among the level of experience for the faculty members working in Yemen. The faculty with little or average levels of experience had more statistically significant negative attitudes toward culture and social factor than the faculty with much experience. On the other hand, there were no statistically significant differences among the level of experience in all other countries (See Tables 12 and 22).

Table 12

ANOVA for the Differences in Attitudes toward Culture and Social Factor among the Level of Experience

Country	Source	*SS*	*df*	*MS*	*F*	*Sig*
Saudi	Level of experience	33.50	2	16.75	2.35	.110
	Error	249.55	35	7.13		
	Total	11470	37			
Bahrain	Level of experience	22.21	2	11.11	1.82	.183
	Error	159.10	26	6.12		
	Total	9327	28			
UAE	Level of experience	42.30	2	21.15	2.21	.129
	Error	258.67	27	9.58		
	Total	10421	29			
Kuwait	Level of experience	11.14	2	5.57	.30	.745
	Error	733.93	39	18.82		
	Total	15567	41			

Table 12 (*continued*)

Country	Source	*SS*	*df*	*MS*	*F*	*Sig*
Yemen	Level of experience	116.47	2	58.23	4.20	.024
	Error	429.92	31	13.87		
	Total	12109	33			
USA	Level of experience	9.80	2	4.90	.67	.512
	Error	974.73	134	7.27		
	Total	54512	136			

There was also a statistically significant interaction between faculty member's country of work and level of experience in attitudes toward economic factors, $F(10,230)=2.20$, $p=0.03$, ($\omega^2=.080$) (See Table 21). Tests of simple effects, followed by post hoc comparisons using Scheffé's, were conducted to examine differences in attitudes toward economic factors among the countries of work for each level of experience. In the sample of faculty with little experience, the faculty members in Yemen, Saudi Arabia, Bahrain and Kuwait had more statistically significant negative attitudes toward economic factors than the United States and United Arab Emirates. In the sample of the faculty with average or much experience, there were no statistically significant differences in the economic factors among the countries of work (See Tables 13 and 22).

Table 13

ANOVA for the Differences in Attitudes toward the Economic Factor among the Countries of Work

Experience	Source	SS	df	MS	F	Sig
Little	Country of Work	264.77	5	52.95	3.57	.006
	Error	1291.04	87	14.84		
	Total	27623	92			
Average	Country of Work	60.95	5	12.19	1.07	.038
	Error	1104.76	97	11.39		
	Total	29688	102			
Much	Country of Work	53.69	5	10.74	.96	.45
	Error	1214.57	108	11.25		
	Total	36743	113			

Tests of simple effects, followed by post hoc comparisons using Scheffé's, were also conducted to examine differences in attitudes toward economic factors among the level of experience for each of the countries of work. There were statistically significant differences among the levels of experience for the faculty members working in Yemen. The faculty with little or average levels of experience had more statistically significant negative attitudes toward the economic factor than the faculty with much experience. On the other hand, there were no statistically significant differences among the level of experience in any other countries (See Tables 14 and 22).

Table 14

ANOVA for the Differences in Attitudes toward the Economic Factor among the Faculty

Members' Level of Experience

Country of work	Source	SS	df	MS	F	Sig
Saudi	Level of experience	38.91	2	19.45	1.24	.302
	Error	549.44	35	15.70		
	Total	10477	37			
Bahrain	Level of experience	14.14	2	7.07	.40	.67
	Error	457.31	26	17.59		
	Total	8717	28			
UAE	Level of experience	30.53	2	15.27	1.72	.198
	Error	239.33	27	8.86		
	Total	9918	29			
Kuwait	Level of experience	8.72	2	4.36	.25	.783
	Error	691.68	39	17.74		
	Total	12201	41			
Yemen	Level of experience	141.26	2	70.63	5.65	.008
	Error	387.36	31	12.50		
	Total	8947	33			
USA	Level of experience	43.47	2	21.74	2.27	.108
	Error	1285.24	134	9.59		
	Total	43794	136			

There was also a statistically significant interaction between faculty member's country of work and level of experience in attitudes toward the location factor, $F(10,230)=2.22$, $p=0.02$, ($\omega^2=.088$) (See Table 21). Tests of simple effects, followed by post hoc comparisons using Scheffé's, were conducted to examine differences in attitudes toward the location factor among the countries of work for each level of experience. In the sample of faculty with little experience, there were no statistically significant differences in the location factor among the countries of work. In the sample of the faculty with average experience, the faculty members in all the Middle Eastern countries targeted in this study had more statistically significant negative attitudes toward the location factor than the United States. In the sample of the faculty with much experience, the faculty members in Kuwait and UAE had more statistically significant negative attitudes toward the location factor than Yemen. Saudi Arabia, Bahrain, and the United States were in between the two (See Tables 15 and 22).

Tests of simple effects, followed by post hoc comparisons using Scheffé's, were also conducted to examine differences in attitudes toward the location factor among the level of experience for each of the countries of work. There were statistically significant differences among the level of experience for the faculty members working in four countries, Saudi Arabia, Bahrain, Kuwait, and the United States. All the faculty with little or average levels of experience in these countries had more statistically significant negative attitudes toward the location factor than the faculty with much experience. On the other hand, there were no statistically significant differences among the levels of experience in the other two countries, Yemen and UAE (See Tables 16 and 22).

Table 15

ANOVA for the Differences in Attitudes toward the Location Factor among Countries of Work

Experience	Source	SS	df	MS	F	Sig
Little	Country of Work	46.07	5	9.22	1.18	.328
	Error	682.06	87	7.84		
	Total	13905	92			
Average	Country of Work	225.54	5	45.11	6.72	.001
	Error	651.39	97	6.72		
	Total	16315	102			
Much	Country of Work	148.28	5	29.66	4.25	.001
	Error	754.08	108	6.98		
	Total	20771	113			

None of the other five factors that affect the faculty member's attitudes toward the use of distance education were significant (attitudes toward the use of technology, $F(10,230)=1.41$, $p=.173$; educational factors, $F(10,230)=1.41$, $p=.173$; academic achievement, $F(10,230)=.99$, $p=.447$; policies, $F(10,230)=1.40$, $p=.181$; and availability of distance education tools in the universities, $F(10,230)=1.16$, $p=.335$).

Table 16

ANOVA for the Differences in Attitudes toward Location Factor among the Faculty Members'

Level of Experience

Country	Source	SS	df	MS	F	Sig
Saudi	Level of experience	1.10	2	.10	.12	.888
	Error	294.21	35	8.41		
	Total	5162	37			
Bahrain	Level of experience	12.27	2	6.14	.53	.595
	Error	300.76	26	11.57		
	Total	4206	28			
UAE	Level of experience	30.53	2	15.27	1.72	.198
	Error	239.33	27	8.86		
	Total	9918	29			
Kuwait	Level of experience	14.30	2	7.15	.77	.469
	Error	361.34	39	9.27		
	Total	6069	41			
Yemen	Level of experience	138.83	2	69.42	7.57	.002
	Error	284.11	31	9.17		
	Total	5176	33			
USA	Level of experience	15.50	2	7.75	1.45	.238
	Error	716.52	134	5.35		
	Total	26175	136			

The interaction between faculty member's gender and level of experience. There was a statistically significant interaction between faculty member's level of experience and gender in attitudes toward the use of technology, $F(2,230)=3.04$, $p=0.05$, ($\omega^2=.026$) (See table 21). Tests of simple main effects were conducted in order to examine the differences between the male and female faculty members within each level of experience. There were no statistically significant differences between male and female faculty members in their attitudes toward the use of technology in any of the levels of faculty members' levels of experience (See Tables 17 and 22).

Table 17

 T-Test for the Differences in Attitudes toward the Use of Technology Factor Between Males and

Females

Level of experience	t	df	Sig
Little	0.71	97	.447
Average	0.85	95	.377
Much	0.11	116	.105

Tests of simple effects, followed by post hoc comparisons using Scheffé's were conducted to examine differences in attitudes toward the use of technology factor among the faculty members' level of experience for each gender. In the sample of male faculty, there were statistically significant differences in the use of technology factor among the level of experience. The average and the little levels of experience had significantly more negative attitudes toward the use of technology than the much level of experience. In the sample of female faculty, there were also statistically significant differences in the use of technology factor among the level of

experience. The average level had significantly more negative attitudes toward the use of

technology than the little and much levels of experience (See Tables 18 and 22).

Table 18

ANOVA for the Differences in Attitudes toward the Use of Technology Factor among the Faculty

Members' Levels of Experience

Gender	Source	SS	df	MS	F	Sig
Male	Level of experience	44.65	2	22.32	1.63	.199
	Error	2147.80	157	13.68		
	Total	104051	159			
Female	Level of experience	107.38	2	53.69	3.27	.041
	Error	2131.82	130	16.40		
	Total	88850	132			

There was also a statistically significant interaction between faculty member's level of

experience and gender in attitudes toward the availability of distance education tools,

$F(2.230)=4.92$, $p=0.008$, ($\omega^2=.044$). Tests of simple main effects were conducted in order to

examine the differences between the male and female faculty members within each level of

experience. There were statistically significant differences between the male and female faculty

members' in the little level of experience in their attitudes toward the availability of distance

education tools. The female faculty members had more negative attitudes toward the availability

of distance education tools than the males. There were no statistically significant differences

between male and female faculty members in their attitudes toward the availability of distance

education tools in the other two levels of experience, i.e., those with average and much

experience (See Tables 19 and 22).

Table 19

T-Test for the Differences in Attitudes toward the Availability of Distance Education Tools

Between Male and Female Faculty Members

Level of experience	*t*	*df*	*Sig*
Little	2.81	95	.006
Average	1.37	96	.174
Much	1.68	113	.096

Tests of simple effects, followed by post hoc comparisons using Scheffé's, were

conducted to examine differences in attitudes toward the availability of distance education tools

factor among the faculty members' levels of experience for each gender. In the sample of male

faculty, there were statistically significant differences in the availability of distance education

tools factor among the levels of experience. The much level of experience had significantly

more negative attitudes toward the availability of distance education tools than the average and

little level of experience. Likewise, the average level of experience had significantly more

negative attitudes toward the availability of distance education tools than the little level of

experience. In the sample of female faculty, there were also statistically significant differences

in the availability of distance education tools factor among the levels of experience. The much

level had significantly more negative attitudes toward the availability of distance education tools

than the little and average levels of experience (See Tables 20 and 22).

Table 20

ANOVA for the Differences in Attitudes toward the Availability of Distance Education Tools

Factor among the Faculty Members' Levels of Experience

Gender	Source	SS	df	MS	F	Sig
Male	Level of experience	12961.64	2	6480.82	31.17	.000
	Error	32645.80	157	207.94		
	Total	226981	159			
Female	Level of experience	1739.37	2	869.69	3.03	.052
	Error	37274.19	130	286.73		
	Total	208585	132			

None of the other six factors that affect the faculty member's attitudes toward the use of distance education were significant (cultural and social factors, $F(2,230)=.04$, $p=.959$; economic factors, $F(2,230)=.27$, $p=.761$; location, $F(2,230)=.08$, $p=.926$; educational factors, $F(2,230)=1.75$, $p=.176$; academic achievement, $F(2,230)=.20$, $p=.181$; and policies $F(2,230)=2.77$, $p=.065$) (See Table 21).

The main effect of faculty member's country of work. The main effect of faculty member's country of work was statistically significant in attitudes toward culture and social factor, $F(5, 230)=4.20$, $p=.001$ ($\omega^2=.08$), (See Table 21). Post hoc comparisons using Scheffé's, were conducted to examine differences in attitudes toward the culture and social factor among the faculty members' country of work. The faculty members in Saudi Arabia and Bahrain had

more statistically significant negative attitudes toward cultural and social factor than the United States. Yemen, the United Arab Emirates and Kuwait were in between these two groups.

The main effect of faculty member's country of work was also statistically significant on attitudes toward location, $F(5, 230)=4.03$, $p=.002$ ($\omega^2=.08$), (See Table 21). Post hoc comparisons using Scheffé's, were conducted to examine differences in attitudes toward the location factor among the faculty members' country of work. The faculty members in Bahrain, Saudi Arabia, the United Arab Emirates and Kuwait had more statistically significant negative attitudes toward the location factor than the United States. Yemen was in between these two groups.

The main effect of faculty member's country of work was also statistically significant on attitudes toward the educational factors, $F(5, 230)=2.32$, $p=.045$ ($\omega^2=.05$), (See Table 21). Post hoc comparisons using Scheffé's, were conducted to examine differences in attitudes toward the educational factor among the faculty members' country of work. The faculty members in Bahrain had more statistically significant negative attitudes toward the educational factor than the United States. Yemen, Kuwait, Saudi Arabia and the United Arab Emirates were in between these two countries.

The main effect of faculty member's country of work was also statistically significant on attitudes toward the academic achievement factor, $F(5, 230)=3.29$, $p=.007$ ($\omega^2=.07$), (See Table 21). Post hoc comparisons using Scheffé's, were conducted to examine differences in attitudes toward the academic achievement factor among the faculty members' country of work. The faculty members in the United Arab Emirates and Kuwait had more statistically significant negative attitudes toward the academic achievement factor than the United States. Yemen, Bahrain and Saudi Arabia were in between these two countries.

The main effect of faculty member's country of work was also statistically significant on attitudes toward policies, $F(5, 230)=9.89$, $p<.001$ ($\omega^2=.18$), (See Table 21). Post hoc comparisons using Scheffé's were conducted to examine differences in attitudes toward the policies factor among the faculty members' country of work. The faculty members in Kuwait and the United Arab Emirates had more statistically significant negative attitudes toward policies than the faculty members in the United States. Bahrain, Saudi Arabia and Yemen were in between these two groups.

The main effect of faculty member's country of work was also statistically significant on attitudes toward availability of distance education tools, $F(5, 230)=97.05$, $p<.001$ ($\omega^2=.69$), (See Table 21). Post hoc comparisons using Scheffé's were conducted to examine differences in attitudes toward availability of distance educational tools among the faculty members' country of work. The faculty members in Yemen and Saudi Arabia had more statistically significant negative attitudes toward the availability of the distance education tools factor than the faculty members in the United States and the United Arab Emirates. Faculty members in Bahrain and Kuwait were in between these two groups.

The main effect of faculty member's country of work was not statistically significant on attitudes toward using of technology, $F(5, 230)=0.09$, $p=.993$ and attitudes toward economic factors, $F(5, 230)=0.53$, $p=.757$ (See Table 21).

The main effect of faculty member's gender. The main effect of faculty member's gender was statistically significant on attitudes toward policies, $F(1, 230) = 11.62$, $p=.001$ ($\omega^2=.05$), (See Table 21). The male faculty members had more negative attitudes toward policies than female faculty members. None of the other main effects of faculty member's gender were significant.

The main effect of faculty member's level of experience. The main effect of faculty member's level of experience was statistically significant on attitudes toward using technology, $F(2, 230)=3.39$, $p=.036$ ($\omega^2=.03$); academic achievement, $F(2, 230)=5.37$, $p=.005$ ($\omega^2=.05$); and policies, $F(2, 230)=3.12$, $p=.046$ ($\omega^2=.03$) (See Table 21). Post hoc comparisons using Scheffé's were conducted to examine differences in attitudes toward these three factors; i.e., the use of technology, academic achievement and policies, and the faculty members' level of experience. In the above three factors, the faculty members with average or little level experience had more statistically significant negative attitudes toward these factors than the faculty members in the much level of experience. None of the other main effects of faculty member's level of experience were significant.

Table 21

Multivariate ANOVA for the Differences among the Study Independent Variables for Each of the Study Distance Education Factors

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Country	Att. toward the use of technology	6.83	5	1.37	0.09	0.993	0.00
	Att. toward cultural and social factors	196.17	5	39.23	4.20	0.001	0.08
	Att. toward economic factors	32.21	5	6.44	0.53	0.757	0.01
	Att. toward location	135.03	5	27.01	4.03	0.002	0.08
	Att. toward educational factors	59.16	5	11.83	2.32	0.045	0.05
	Att. toward academic achievement	370.33	5	74.07	3.29	0.007	0.07
	Att. toward policies	257.80	5	51.56	9.89	0	0.18
	Att. toward distance education tools	38449.78	5	7689.96	97.05	0	0.68

Table 21 (continued)

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Gender	Att. toward the use of technology	46.66	1	46.66	3.21	0.075	0.01
	Att. toward cultural and social factors	7.30	1	7.30	0.78	0.378	0.00
	Att. toward economic factors	0.00	1	0.00	0.00	0.986	0.00
	Att. toward location	3.33	1	3.33	0.50	0.482	0.00
	Att. toward educational factors	16.38	1	16.38	3.21	0.075	0.01
	Att. toward academic achievement	22.20	1	22.20	0.99	0.321	0.00
	Att. toward policies	60.59	1	60.59	11.62	0.001	0.05
	Att. toward distance education tools	143.96	1	143.96	1.82	0.179	0.01

Table 21 (continued)

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Experience	Att. toward the use of technology	98.63	2	49.32	3.39	0.036	0.03
	Att. toward cultural and social factors	35.23	2	17.62	1.88	0.154	0.02
	Att. toward economic factors	51.04	2	25.52	2.08	0.127	0.02
	Att. toward location	13.00	2	6.50	0.97	0.381	0.01
	Att. toward educational factors	27.05	2	13.53	2.65	0.073	0.02
	Att. toward academic achievement	241.48	2	120.74	5.37	0.005	0.05
	Att. toward policies	32.51	2	16.26	3.12	0.046	0.03
	Att. toward distance education tools	92.34	2	46.17	0.58	0.559	0.01

Table 21 (*continued*)

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Country * Gender	Att. toward the use of technology	90.93	5	18.19	1.25	0.287	0.03
	Att. toward cultural and social factors	36.99	5	7.40	0.79	0.557	0.02
	Att. toward economic factors	83.78	5	16.76	1.37	0.237	0.03
	Att. toward location	20.62	5	4.13	0.62	0.688	0.01
	Att. toward educational factors	13.59	5	2.72	0.53	0.752	0.01
	Att. toward academic achievement	41.18	5	8.24	0.37	0.871	0.01
	Att. toward policies	80.88	5	16.18	3.10	0.01	0.06
	Att. toward distance education tools	665.48	5	133.10	1.68	0.14	0.04

Table 21 (*continued*)

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Country * Experience	Att. toward the use of technology	206.14	10	20.61	1.42	0.174	0.06
	Att. toward cultural and social factors	199.22	10	19.92	2.13	0.023	0.09
	Att. toward economic factors	245.63	10	24.56	2.01	0.034	0.08
	Att. toward location	148.91	10	14.89	2.22	0.017	0.09
	Att. toward educational factors	72.50	10	7.25	1.42	0.173	0.06
	Att. toward academic achievement	224.10	10	22.41	1.00	0.447	0.04
	Att. toward policies	73.04	10	7.30	1.40	0.181	0.06
	Att. toward distance education tools	901.53	10	90.15	1.14	0.335	0.05

Table 21 (*continued*)

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Gender * Experience	Att. toward the use of technology	88.44	2	44.22	3.04	0.05	0.03
	Att. toward cultural and social factors	0.78	2	0.39	0.04	0.959	0.00
	Att. toward economic factors	6.70	2	3.35	0.27	0.761	0.00
	Att. toward location	1.04	2	0.52	0.08	0.926	0.00
	Att. toward educational factors	17.90	2	8.95	1.75	0.176	0.02
	Att. toward academic achievement	9.05	2	4.53	0.20	0.818	0.00
	Att. toward policies	28.85	2	14.43	2.77	0.065	0.02
	Att. toward distance education tools	779.09	2	389.55	4.92	0.008	0.04

Table 21 (*continued*)

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Country * Gender * Experience	Att. toward the use of technology	174.53	9	19.39	1.33	0.221	0.05
	Att. toward cultural and social factors	135.30	9	15.03	1.61	0.114	0.06
	Att. toward economic factors	53.88	9	5.99	0.49	0.882	0.02
	Att. toward location	64.73	9	7.19	1.07	0.384	0.04
	Att. toward educational factors	18.12	9	2.01	0.39	0.937	0.02
	Att. toward academic achievement	74.56	9	8.28	0.37	0.949	0.01
	Att. toward policies	57.66	9	6.41	1.23	0.279	0.05
	Att. toward distance education tools	1312.71	9	145.86	1.84	0.062	0.07

Table 21 (*continued*)

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Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Error	Att. toward the use of technology	3348.85	230	14.56			
	Att. toward cultural and social factors	2150.16	230	9.35			
	Att. toward economic factors	2818.30	230	12.25			
	Att. toward location	1541.88	230	6.70			
	Att. toward educational factors	1175.27	230	5.11			
	Att. toward academic achievement	5171.14	230	22.48			
	Att. toward policies	1199.73	230	5.22			
	Att. toward distance education tools	18223.91	230	79.23			

Table 21 (*continued*)

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Total	Att. toward the use of technology	172937.00	265				
	Att. toward cultural and social factors	97346.00	265				
	Att. toward economic factors	79848.00	265				
	Att. toward location	43954.00	265				
	Att. toward educational factors	31414.00	265				
	Att. toward academic achievement	86245.00	265				
	Att. toward policies	57317.00	265				
	Att. toward distance education tools	393076.00	265				

Table 22

Means and Standard Deviation for All Study Dependent Variables among the Study Independent Variables

Attitudes toward	Country	Little				Average				Much			
		Male		Female		Male		Female		Male		Female	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Use of technology	Saudi	22.86	4.38	25.33	6.43	23.00	4.94	24.33	3.01	27.00	1.73	29.00	7.55
	Bahrain	27.67	1.53	24.25	3.73	23.00	5.66	25.80	3.03	23.60	5.59	27.00	0.00
	UAE	23.75	3.20	27.00	3.21	24.80	3.63	21.67	3.06	26.00	0.82	28.50	0.71
	Kuwait	25.78	3.53	24.82	2.75	25.00	4.36	26.83	4.07	0.00	0.00	23.50	4.95
	Yemen	25.64	5.64	23.50	1.76	21.80	2.77	22.20	2.49	23.00	1.41	33.50	16.26
	USA	25.80	2.28	23.89	3.76	26.00	4.29	24.50	4.43	25.76	2.96	26.19	3.08

Table 22 (*continued*)

Attitudes toward	Country	Little				Average				Much			
		Male		Female		Male		Female		Male		Female	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Culture & social factors	Saudi	16.00	2.52	18.00	1.00	15.83	2.32	17.50	1.87	19.67	5.86	18.67	2.31
	Bahrain	14.33	1.53	18.25	2.05	17.00	1.41	20.20	2.59	17.80	2.05	14.00	0.00
	UAE	17.00	2.00	17.57	3.31	19.00	2.55	20.00	4.36	19.50	2.65	19.50	6.36
	Kuwait	18.89	3.62	18.82	4.31	17.00	4.58	19.00	4.98	0.00	0.00	16.50	6.36
	Yemen	18.27	3.72	16.17	2.56	19.40	1.67	17.00	1.41	20.50	3.54	26.50	12.02
	USA	21.60	3.21	19.22	3.96	20.05	2.26	18.43	2.50	19.57	2.56	20.30	2.69

Table 22 (continued)

Attitudes toward	Country	Little				Average				Much			
		Male		Female		Male		Female		Male		Female	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Economic factors	Saudi	15.14	2.85	17.67	3.79	16.00	2.19	16.17	4.22	17.00	9.54	19.00	3.61
	Bahrain	17.33	3.21	14.75	5.34	17.00	7.07	18.40	1.52	16.80	3.11	18.00	0.00
	UAE	20.50	5.45	18.00	2.24	16.60	1.14	16.67	3.51	17.50	1.29	16.00	1.41
	Kuwait	17.11	4.08	14.91	4.06	18.67	3.06	15.00	5.22	0.00	0.00	18.50	6.36
	Yemen	14.64	3.61	14.33	1.97	15.20	3.70	16.40	2.07	19.50	4.95	22.50	10.61
	USA	18.40	2.97	19.67	3.46	16.60	3.17	18.14	3.32	17.41	2.84	17.33	2.94

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Table 22 (continued)

Attitudes toward	Country	Little				Average				Much			
		Male		Female		Male		Female		Male		Female	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Location factors	Saudi	10.86	2.73	12.67	3.51	10.83	1.17	12.17	1.94	12.00	7.00	11.00	1.00
	Bahrain	12.00	1.00	10.88	2.85	12.00	2.83	11.40	5.37	11.20	1.30	13.00	0.00
	UAE	12.00	3.37	13.00	1.29	10.20	1.64	12.00	4.00	11.25	1.71	10.50	2.12
	Kuwait	12.33	2.24	12.18	4.42	13.33	2.52	10.67	1.97	0.00	0.00	9.50	6.36
	Yemen	12.00	3.22	10.33	1.97	10.80	1.30	11.60	2.07	15.00	2.83	19.50	7.78
	USA	12.40	2.07	13.67	1.73	13.70	2.23	13.64	1.65	13.57	2.35	13.44	1.83

Table 22 (*continued*)

Attitudes toward Educational factors	Country	Little				Average				Much			
		Male		Female		Male		Female		Male		Female	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
	Saudi	11.14	2.12	9.67	2.52	10.17	1.60	9.67	3.27	9.67	5.51	10.00	1.00
	Bahrain	9.00	1.00	9.00	3.38	9.00	2.83	9.60	2.61	9.80	1.10	12.00	0.00
	UAE	11.75	2.06	11.43	1.40	8.60	0.89	10.67	2.08	9.50	0.58	11.50	0.71
	Kuwait	10.67	2.50	9.55	2.42	9.33	2.08	10.67	3.01	0.00	0.00	9.50	4.95
	Yemen	9.82	3.06	10.17	1.72	8.60	1.34	9.20	1.92	12.00	2.83	15.00	7.07
	USA	10.60	1.95	11.78	0.67	10.85	1.87	11.14	2.28	11.10	2.10	11.93	1.94

Table 22 (*continued*)

Attitudes toward	Country	Little				Average				Much			
		Male		Female		Male		Female		Male		Female	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Academic	Saudi	15.14	3.44	15.67	5.13	17.50	3.89	16.67	2.88	18.33	6.66	20.00	4.58
achievement	Bahrain	15.67	1.53	15.88	6.10	14.00	8.49	15.00	3.32	19.80	5.26	23.00	0.00
	UAE	14.25	6.70	16.43	5.35	12.00	4.64	15.00	6.93	15.50	1.73	14.50	0.71
	Kuwait	18.33	3.57	14.64	4.43	14.00	2.00	14.33	3.67	0.00	0.00	15.50	13.44
	Yemen	15.82	4.35	15.33	6.22	15.40	4.10	14.40	2.07	20.00	0.00	24.00	8.49
	USA	17.60	6.73	20.33	2.60	17.90	4.72	18.36	3.56	18.24	4.98	20.56	5.00

Table 22 (continued)

Attitudes toward Policies	Little				Average				Much			
	Male		Female		Male		Female		Male		Female	
Country	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Saudi	13.71	0.95	12.33	3.06	13.50	1.64	13.00	3.35	12.00	3.00	15.67	2.52
Bahrain	10.33	4.16	11.50	2.07	14.00	1.41	14.60	3.05	15.20	2.28	15.00	0.00
UAE	11.50	1.73	14.14	1.95	11.80	3.56	14.00	4.36	12.50	2.08	14.00	1.41
Kuwait	13.00	3.24	12.73	2.10	12.00	3.61	13.33	3.78	0.00	0.00	12.00	2.83
Yemen	12.27	2.45	13.83	2.32	13.80	1.30	15.00	1.22	10.50	0.71	19.50	7.78
USA	15.60	0.55	15.22	2.64	15.50	1.32	14.57	1.45	16.00	1.81	16.70	2.32

Table 22 (continued)

Attitudes toward	Country	Little				Average				Much			
		Male		Female		Male		Female		Male		Female	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Tools	Saudi	47.86	10.32	52.67	19.66	50.17	14.73	58.00	9.17	39.67	12.22	60.67	13.01
	Bahrain	40.33	5.13	31.00	7.84	26.50	12.02	41.20	17.40	35.20	3.35	19.00	0.00
	UAE	28.50	5.92	25.71	6.90	23.00	7.58	36.67	12.66	34.50	5.07	26.00	8.49
	Kuwait	44.00	11.28	37.91	9.22	30.67	13.32	39.67	15.47	0.00	0.00	29.00	1.41
	Yemen	67.55	7.08	66.33	7.94	62.60	9.71	61.60	5.41	66.00	9.90	74.00	1.41
	USA	22.80	7.82	23.44	9.07	24.20	6.68	25.93	7.75	22.02	6.41	23.07	9.36

Results of Fifth Hypothesis

To investigate the fifth hypothesis, a Pearson Correlation was conducted with availability of distance education tools in the universities as independent variables and attitudes toward the use of technology, cultural and social factors, economic factors, location, educational factors, academic achievement, and policies, as dependent variables.

There were statistically significant negative and weak correlations between the availability of distance education tools in the universities and all distant education factors, which means the availability of distance education tools in the universities does not affect the faculty attitudes toward distant education (See Table 23).

Table 23

Pearson Correlation

Factor	Pearson Correlation	Sig
using technology	-.107	.047
cultural and social	-.196	.001
economic	-.183	.001
location	-.207	.001
educational	-.212	.001
academic achievement	-.174	.002
policies	-.312	.001

Summary

This chapter presented a statistical analysis of the study results. Participants were faculty members from Middle Eastern and United States' state universities. One hundred thirty-nine faculty members participated from the Middle East. Thirty-one of these participated from Yemen, 31 from Kuwait, 24 from Bahrain, 28 from Saudi Arabia, and finally 25 from United

Arab Emirates. Among the Middle East participants, 70 were female, and 69 were male. As for the faculty members participating from the United States, 126 participated in the study, 50 females and 76 males.

   To investigate the first four hypotheses, a multivariate ANOVA was conducted with country of work, gender, and the level of experience as independent variables and attitudes toward the use of technology, cultural and social factors, economic factors, location, educational factors, academic achievement, policies, and availability of distance education tools in the universities as dependent variables. To investigate the fifth hypothesis, a Pearson Correlation was conducted with availability of distance education tools in the universities as independent variables and attitudes toward the use of technology, cultural and social factors, economic factors, location, educational factors, academic achievement, and policies, as dependent variables.

Chapter 5

FINDINGS, DISCUSSION, RECOMMENDATIONS FOR FUTURE RESEARCH, AND

RECOMMENDATIONS FOR PRACTICE

This study aimed at investigating the attitudes of Middle Eastern faculty toward the application of distance education in the Middle Eastern universities. A comparison was made between the faculty members in the Middle Eastern state universities and faculty members in the USA state universities. This chapter presents the findings and discussion of the study results. In addition, the researcher addresses suggestions for future research and recommendations for practice in the field of applying distance education in the Middle Eastern universities.

Discussion of the Study Results

Study findings were based on the results obtained from the analysis of the surveys completed by the Middle Eastern and US faculty members who participated in the study.

Attitudes toward the Use of Technology

Generally the study showed that there was a statistically significant interaction between faculty member's level of experience and gender in attitudes toward the use of technology, $F(2,230)=3.04$, $p=0.05$, ($\omega^2=.026$) (See Table 21).

In each of the male and female faculty members groups, those with the most experience

have the least negative attitudes toward the use of technology. In the female group, those with average experience showed more negative attitudes toward the use of technology. Studies like Ocak (2005) and Woodrow (1992) showed a different result where younger people tend to show more positive attitudes toward the use of technology. However, these studies pointed out that such mixed results are not uncommon as in addition to age and experience, other factors like what curriculum the individual is teaching can be a part of the equation. As for the Middle Eastern faculty, based on my previous teaching experience, I believe that it is normal for the faculty with much experience to have more positive attitudes toward the use of technology due to the fact that they are usually privileged, by the institution, with more access to technology.

The finding that there were no statistically significant differences between male and female faculty members in their attitudes toward the use of technology in any level of faculty members' levels of experience (Tables 17 and 22) is very interesting. The literature concerning males' versus females' attitudes and the use of technology in the Middle East shows more males' use of technology than females'. For example, AbdAlhameed (2002) indicated that fewer females in the Middle East attend computer courses or use computers. Moreover, Speier, Morris, and Briggs (1995) found better skills and performance are reflected in more positive attitudes and vice versa. This puts my findings in opposition to previous studies. It is important here to point out that even though AbdAlhameed's study precedes this current study, it was done in 2002, and it refers to other studies that showed an increase in this tendency. For example, AbdAlhameed's study documents more males' than females' use of technology in the Middle East, during the years prior to 2002, especially of females studying in computer science departments. However, Ray, Sormunen, and Harris, (1999) provide support for this study's findings in that they pointed out the tendency of males to have more positive attitudes toward the

use of technology, yet, also explain the lack of significant differences by stating that, "At the present time, computer use in university classes has provided equal opportunities for exposure to technology for both genders; consequently one would not expect to see gender differences" (p. 7).

Attitudes toward Culture and Social Factors

The study found out that Middle Eastern faculty members have more negative attitudes toward distance education than faculty members in the United States. As has been mentioned before, physical presence of the teacher is given a high social and religious status. I believe that this status, for many faculty members and teachers, is threatened when using distance education. AlAreeni (2003) supports this point of view when she points out that many faculty members have deep rooted beliefs regarding their teaching status, and that these cannot be questioned. Among these beliefs is that the "faculty member is the only person who has the right to decide what to teach, when and how" (p. 6).

Many other social and cultural factors in the Middle East help explain the more negative attitudes toward the use of distance education. One example is that using the Internet in distance education makes it easier for students of both genders to be involved in more communications and connections, which is generally unacceptable in the Middle East. Online, such communications are still unapproved and banned especially in more religiously strict countries like Saudi Arabia. Another example is that many faculty members in the Middle East express their concern over cheating when it comes to teaching via distance where the absence of a class room setting, where a teacher is proctoring a test or a quiz, means facilitating or making it easier to cheat. AlMarefha, (2009) referred to this concern as a setback to the use of distance education. I found it interesting that, although the article pointed out technologies that can be

used to restrict plagiarism and online cheating, it referred to the "moral and religious inhibitory" (Para 22) as the main factor in solving this problem and the success of distance learning. This in itself explains a problem trusting the technology used in distance education.

Among the different levels of experience, the faculty members with little or average levels of experience had statistically more negative attitudes toward the culture and social factor than the faculty members with much experience (see Tables 12 and 22). Such findings are repeated elsewhere. I believe this is quite anticipated due to the fact that faculty members with much experience have the expertise and the long years of work to overlook issues like problems caused to females by working long hours on the Internet, or issues of electronic communication between the two genders, or the possibility of more cheating in distance education environment, etc. For these faculty members, these issues are outweighed by the benefits of using distance education.

In regard to attitudes toward cultural and social factors, the study showed also that there was a statistically significant interaction between a faculty member's country of work and level of experience, $F(10,230)=2.13$, $p=0.02$, ($\omega^2=.085$) (See Tables 21 and 22). I found this interestingly unexpected as the faculty members with much experience in Yemen had the least negative attitudes toward the use of distance education of faculty members in all countries including the United States. However, some of the literature about the status of Yemeni students in the Gulf countries may present an acceptable explanation for this tendency. As pointed out by Nijad (2005) and Alkindi (2006), some Yemeni universities open distance branches in the Gulf countries to help Yemeni students obtain their college degrees. These students are not allowed, according to these countries' laws, to obtain their college or higher education there. This probably made these faculty members overlook the cultural and social factors, when these

distance centers offer a critical solution that is needed to solve the students' dilemma. In the group of the average experience, faculty members in UAE and Bahrain, in addition to the USA, had the least negative attitudes toward the use of distance education.

Attitudes toward the Economic Factor

As shown in Chapter Four, there was also a statistically significant interaction between faculty member's country of work and level of experience in attitudes toward economic factors, $F(10,230)=2.20$, $p=0.03$, ($\omega^2=.080$) (See Table 21). The result in general agrees with one of the findings of Sumrall (2002) in his study of the factors (including equipment cost and maintenance, limited technological infrastructure, and lack of rewards and incentives on the institutions' decision on participating in distance education) that influence faculty attitudes and perceptions of distance education. Sumrall found that the majority of the participants disagreed with these (equipment cost and maintenance, limited technological infrastructure, and lack of rewards and incentives on the institutions' decision on participating in distance education) as limitations to the use of distance education. The result of this study showed that faculty members with little experience, and in the case of Yemen also average experience, expressed more negative attitudes in the economic factors which also was a finding by Sumrall, whose study pointed out that the higher the education of the faculty member (i.e., more years of experience expected) the more he/she tended to show concern toward the quality of the courses rather than the limitations mentioned above.

Attitudes toward Location

The location factor in the study brought statistically significant interaction between faculty member's country of work and level of experience in attitudes toward the use of distance education, $F(10,230)=2.22$, $p=0.02$, ($\omega^2=.088$) (See Table 21). Among the faculty members

with average level of experience, faculty members in all Middle Eastern countries showed more negative attitudes toward the use of distance education in regards to location than the faculty members in the United States. I believe such a result was expected as the Americans' experience with the application of distance education has evolved into a more stable education system, where it is well conducted via distance without consideration of where the learners, distance faculty members or institution are located. I also believe it was expected that among three levels of experience, faculty members with much experience showed less negative attitudes in regards to location.

Yet, it was unexpected to find that faculty with much experience in Yemen, the poorest, least technology oriented, and the highest in illiteracy rates, had more positive attitudes than even the United States toward the use of distance education in regard to location. A look into the literature available about distance education in Yemen provides some rational explanation. That is, in addition to the students who can join traditional public or private universities in Yemen, there are two other categories of students. First, there are those who are in Yemen and cannot join these universities due to many obstacles that include job policies that do not allow them to attend classes or due to the high cost of living in the main cities where these universities are located. Second, there are those who are outside Yemen and face the host country's laws, like in the Gulf countries which include Saudi Arabia, the United Arab Emirates, Qatar, etc., that do not allow children of Yemeni nationals to obtain their university degree in their countries. According to Nijad (2005), branches of Sana'a University, referred to as the distance education center, in Riyadh and Jeddah in Saudi Arabia has been a success and could solve the problem of Yemeni students living and working in Saudi Arabia. According to Nijad, in the first year the center was established in 2005, it helped 300 male and female students. According to Alkindi

(2006), the number of distance students jumped to 1000 students at the beginning of the second year, to include five different colleges. In spite of whether this distance system is accredited or not, or whether it is really distance, according to the standards of distance education, establishing the center in Saudi Arabia makes location a non-issue for faculty members, and that is reflected in their positive attitudes toward it.

Attitudes toward Policies

Results of the study showed a statistically significant interaction between faculty member's country of work and gender in attitudes toward policies, $F(5,230)=3.10$, $p=0.01$, ($\omega^2=.063$). As for differences between males and females, there were no statistically significant differences except for the male faculty members in Yemen and UAE, who showed more negative attitudes toward policies than females in the two countries (see Table 9). This could be a result of males dominating high administrative positions in addition to male faculty being closer to the decision and policy makers who are males in general. Generally in each of the male and female faculty groups, faculty members in the Middle Eastern universities showed more negative attitudes toward policies than the US faculty members.

As has been pointed out earlier, policies in the Middle East represent a hurdle in front of those who decide to go on with their education via distance. The UNESCO (2003b) report pointed out the sort of a mission statement by the Open University in Kuwait, which claimed to offer an open system, flexible and supportive of those who fell short of meeting the requirements of regular face-to-face education. Yet, they still have to have completed high school (i.e., no GED, Test of General Educational Development, is available or allowed), have to obtain materials from the Open University main or other offices assigned by the university, and have to go take exams in a university office whether in the headquarters of the university or in other

offices assigned by the university. Part of the policy is that students have to have the same requirements set for those planning to attend regular classes (Mohamed, 2005). These include high registration fees and study costs.

Some human rights organizations in the Middle East, like Freedom of Intellect and Expression Organization in Egypt, believe that even if there are policies that are given by law to distance education students, these policies may be ignored and completely breached with legal authorities taking no action against that (Ezat, 2009). Ezat pointed out that the High Counsel for higher education in Egypt issued a ban in September 2009 on Intisab students; those who are allowed to register for classes but are not allowed to attend classes on campuses regularly, claiming that this is a step aimed at helping the efforts to protect students from H1N1 on campuses. Although, Ezat continued to explain, item 19 of the Egyptian constitution guarantees the right of all students, across all disciplines and educational systems, to be present and to seek knowledge at the university campuses, banning Intisab students from coming to university campuses is a breach of that law and a misuse of policies. The system of Intisab is considered distance education where students may not need to come to campus anyway. Yet, in the Middle Eastern education environment, where distance education is not fully distance and where students as mentioned above have to come to campus for materials, registration, assessments, etc., not allowing them to be on campus is, according to Ezat, a step aimed at pushing students in the Intisab system to go to private sectors, thus saving significant money for the public universities and specifically face-to-face education which is free for students in the Middle East. Thus absence of policies and not enforcing them if they are available explains the negative attitudes of the Middle East faculty members toward policies.

Attitudes toward the Availability of Distance Education Tools

Results showed a statistically significant interaction between faculty member's level of experience and gender in attitudes toward the availability of distance education tools, $F(2.230)=4.92$, $p=0.008$, ($\omega^2=.044$). The result presented an interesting finding. Between both male and female faculty members, those with more experience have more negative attitudes toward the availability of distance education tools at their institutions. Out of my previous experience in teaching in the High Teacher Training Institute and the National University (both in Taiz, Yemen), and I believe this an expected finding in any country where individuals are not used to the availability of computers. Those with few years of experience, and especially those who have just gotten a teaching job in one of these two institutions would see the availability of few computer stations or a computer lab as advancement and look with admiration toward the departments having them. In contrast, teachers who have been teaching for a while would demand to be more satisfied with the technology tools available. For example, in each of the National University and the High Teacher Training Institute, there was a computer lab of 25 to 30 computers. Yet, teachers were demanding an Internet connection, a more open policy of use for students, and an integration of the technology into teaching.

Attitudes toward Educational Factors

The study showed that faculty members in the Middle Eastern state universities had more negative attitudes toward the educational factors than faculty members in the United States, $F(5, 230)=2.32$, $p=.045$ ($\omega^2=.05$), (See Table 21). AlAreeni (2003) referred to an issue of a lack of knowledge on the use of distance education tools, where the distance instructors are mostly at the learning phase, which leads to negative attitudes toward the capability of these tools in improving educational factors. AlAreeni gave the example of distance education instructors'

lack of knowledge about the interactivity available via distance tools that leads to such negative attitudes. The findings of this study go along with AlAreeni's finding. That is, the negative attitudes toward issues like the faculty members being able to represent a role model for students, or that distance education negatively affects students' ability to speak in front of an audience is a result of not knowing much or not fully understanding the distance environment where the effect of physical distance can be solved with an interactive and well-designed distance education course.

Attitudes toward Academic Achievement

The main effect of faculty member's country of work was also statistically significant on attitudes toward the academic achievement, $F(5, 230)=3.29$, $p=.007$ ($\omega^2=.07$) (See Table 21). The study showed that faculty members in the Middle Eastern state universities had more negative attitudes toward the academic achievement factors than faculty members in the United States. In addition to the issue of a lack of knowledge of the possibilities of good education offered by the use of distance education as mentioned above, there is an issue of credibility, too, where distance education is not trusted as an effective educational system. Addressing the obstacles facing distance teaching in the Middle East, Sultan (2007) pointed out the absence of good quality content materials as one of the main difficulties facing distance education in addition to the absence of teachers qualified in the field of distance education. These, in turn, lead to poor academic achievement. Furthermore, distance education being looked at as the destination of those who could not meet the requirements to join traditional face to face institutions, and being perceived as lesser than the traditional system, results in mistrust of the distance program and the possibility of good student achievement outcomes.

Limitations of the Study

In addition to the limitations identified at the beginning of this study, at the end of this study limitations are identified in order to provide clarity and to provide guidance for further research. Although the study had originally intended to use age of the participants as part of the demographics, that was eliminated before the study began because the factor did not seem to directly relate to the answers sought. Retrospectively, without that data, I was not able to determine how age might have influenced the outcomes obtained. For instance, the group with much experience tended to have more positive attitudes toward the use of technology. However, part of this finding may have been caused by the mean age of the group being relatively young and possibly falling into a category of individuals who fit into a group considered digital natives. Digital natives represent a group of individuals who grew up using technology and who are very comfortable in using technology for productivity and for social interactions. Another shortcoming of not knowing the age of the participants is that there was no way to determine the difference in age within and among groups. For instance, it is possible that there was very little difference in age among all the groups. A final limitation related to age not being used as a demographic is that, given what has already been indicated, there was no way to distinguish between U.S. and Middle Eastern faculty attitudes where age might have been a factor. For instance, it is possible that the mean age of the much experience group for Middle Eastern faculty was much younger or older or the same as that of U.S. faculty. Looking further into the example, it might have been possible that the mean age of the much experience group in the Middle East was 10 years or more younger than the mean age of the much experience group in the U.S. In this example, it might have been possible that a comparison was made between individuals in the digital native age group with those in a non-digital native age group. Without

this data, it was not possible to know if the results were skewed in any direction. If the study were conducted again, age would become a demographic factor to be included.

It is possible that another limitation to the study was using a normal curve to determine the length of time associated with each of the experience levels for the a priori brackets on experience. This strategy was used instead of simply choosing a bracket of years a priori because of the range of variables brought by each population in terms of culture, societal norms, practices of educational institutions in the various countries involved, etc. As was found in the table created to demonstrate the limits on the range for each group, the much experience group had the widest spread of years in terms of years of experience–15 to 51 years of experience. The other two categories allowed a range of six years in each category while the much experience group allowed for a range of 36 years. In terms of a limitation, using the normal curve did allow for a much wider level of experience to be represented in one group; however, such did prove to be an advantage in that one of the findings may have been explained. Within the much experience group, it is possible that individuals had witnessed more of the challenges over time to the educational opportunities of the general population who have been disadvantaged because distance education was not available. This may help explain why this group overall had more positive attitudes about distance education. An example of Yemen was pointed out earlier where the faculty members with much experience had more positive attitudes toward distance education than faculty members from other countries. That finding could be related to the wide opportunities given to Yemeni students by opening distance branches of Yemeni universities in several Gulf countries (Alkindi, 2006; Nijad, 2005). Prior to the opening of these distance branches, Yemeni students were either deprived of opportunities for completing their college degrees or the student's family had to endure the hardship of the family member leaving for an

extended period in order to attend the college back home in Yemen.

Regardless of the demarcation strategy selected, the experience any individual may have had while teaching could have differed markedly. For instance, if 1-7 years was assigned as the little experience category, and 8-14 years as the average experience category, and 15 or more years as the much experience category, it would still have been possible for a range of experiences to fall within any category that would skew the results. In this instance it may have been possible for someone in the little experience group to have taught a full course load for the entire period of experience while someone in the average group had only taught one course with the remaining academic load devoted to research. From this perspective, one bracketing strategy may have been just as useful as the other.

Another limitation of the study was in regards to the use of headers in the survey instrument. Participants were able to see the headings which may have influenced them to anticipate and answer items in a manner consistent with the heading more than their individual understanding. It would be better to modify the survey by doing a factor analysis of the items so that items that are conceptually closely related could be grouped together. Restructuring the instrument accordingly may have changed the statistical outcomes. It should also be indicated here that the structure of the survey as it was presented to the participants may account for some of the unexpected results. For instance, the headings related to culture may have influenced respondents in the Middle East to answer using a more general cultural perspective.

Recommendations for Future Research

In the light of the findings of this study, the researcher recommends the following areas for future research.

This study excludes the Middle Eastern faculty members who have taught in an overseas

country. This was meant to focus only on those who have experience within the educational system in the Middle East and thus are not affected by the other country's view of distance education. It would be very informative and interesting to look into the ideas of those who have experienced both systems. This would give the researcher an opportunity to look into three aspects. First, how much the Middle Eastern faculty member is content and comfortable utilizing the new system, assuming the faculty member has experience in teaching using distance education. Second, is understanding how this evolving or transformation into the new system took place. These two aspects will help identify ways of introducing new educational systems easily into the Middle East. Third is the extent to which these faculty members were able to take their overseas experience back home to the Middle East and what difficulties they might have encountered.

Next, focusing on the Islamic view of the issue of using distance education will present very valuable information that will inform the distance education studies in the Middle East. In a Middle Eastern society, where there is a strong tendency to apply the Islamic rules and instructions, two contradicting aspects related to distance education emerge. The first is the fact that teacher, and the physical presence to obtain knowledge from the teacher, is very important and highly valued in Islam. In the Islamic literature, Mohamed, the prophet of Muslims, is described as a teacher. In addition to this, it is common knowledge to Muslims in search of the true words of the prophet that Muslim scholars, in the era after the death of the prophet, used to travel thousands of miles so that they could hear the words from someone who heard them directly from the prophet. The idea of distance education seems to lessen and damage this image of a teacher as his/her physical availability is not important. That is because classes in a distance education setting become more student-centered than teacher-centered (Beaudoin, 1998) which

is more likely to take place in a face-to-face setting. The second contradicting idea is that in these same countries, where they strictly abide by the Islamic rules and regulations, female students can only be taught by female teachers. In countries like Yemen and Saudi Arabia, the number of female teachers may not be enough to meet the needs of increasing numbers of female students. This leads to these female students dropping out from schools. Even in a k-12 school, like in rural areas in Yemen where female students have the opportunity to go to school, these students are forced to leave school due to the fact that they will be in the same class with male students and that they will be taught by male teachers. Particularly for female college students, a very good and practical solution will be the utilization of a distance education system to solve the problem.

As distance education in countries like the USA has also gone through difficult times in the history of distance education, my next recommendation will be a study that examines such difficulties and how they were solved in the attempt to gain more acceptance and value for distance education through the years. At first glance, this idea may not seem to be of any value as we are dealing with two different environments with different educational ideologies and status. Yet, by tracing the development of distance education in the USA, one can see several similarities especially in regard to the way distance education was received. For example, Nasseh (1997) pointed out the lack of acceptance of correspondence study during the last century. Nasseh (1997) pointed out that William Rainy Harper, professor at Yale University, who was authorized to grant degrees to students who completed correspondence study stated that the new form of education would not and could not replace the regular classes. This position, held by many at the time, started to vanish some years later with the establishment of the National University Extension Association (NUEA), which brought about "necessity of new

pedagogical models and new national level guidelines, such as university policies regarding acceptance of credit from correspondence courses, credit transferral, and standard quality for correspondence educators" (Nasseh, 1997, Para 4). This example would suggest creation of such associations in the Middle East to stress the need for and create more credibility for distance education.

Next, I believe that my study should be replicated in countries like Iraq, Palestine, and Sudan. These countries, especially recently, have been politically unstable, which has had a very negative effect on education. Characterized as war zones, these countries' educational institutions have suffered many problems, including dropouts and a decrease in finances that make them unable to meet their needs properly. For example, in Iraq, the number of female students dropped from two females for each three males to only one for each four after the year 2000 (Iraq News Center, 2007). To fill the gap, some distance education institutions have opened for students. According to AlKhalidi (2009), in the Open College of Education in Iraq, which was established in 2001, very few students register for classes because, in addition to the fact that the Ministry of Higher Education has not accredited it yet, it also does not allow graduates of face-to-face universities to join it for their higher education degrees.

Finally, thorough and close studies should be conducted in the open universities in the Middle East, especially Al-Quds Open University and the Arab Open University. The reason I recommend these two is that they are relatively well- known and have established solid educational ground in the Middle East. Al-Quds Open University started its academic work in 1991 and 60,000 students have joined the university mostly from the different branches of the university in Palestine (Al-Quds Open University, c). The Arab Open University started in 2002 and was based in Kuwait, but has now started five other branches in Saudi Arabia, Oman,

Bahrain, Lebanon, Jordan, and Egypt (Arab Open University, 2009). The research in these universities should focus on the following. First, it must focus on the academic programs offered and whether these meet the needs of the community. According to the QOU, five academic programs are offered. These are Technology and Applied Sciences, Agriculture, Social and Family Development, and Administrative and Economic Sciences. Second, this research should look through the factors that lead students to choose the university. Third, the research can focus on comparing the anticipation of the students joining these universities with the extent to which graduate students could benefit from their degrees in real life; i.e., marketability of the university graduates.

<div align="center">**Recommendations for Practice**</div>

Based on the literature review of the status of distance education in the Middle East and the need to build a well-established education system that utilizes distance education tools, and the findings of this study, the following recommendations are highlighted.

First, as the study showed that faculty members with more experience have more positive attitudes toward the use of distance education, these faculty members can be a great asset to ease the negative attitudes toward distance education. The following actions can be recommended:

1. These faculty members should take practical steps in initiating the change to adopt distance education. To do that, they can, for instance, start delivering parts of their classes via distance. It is further suggested that as faculty integrate distance components, or learning activities, into a course that achievement data be gathered. Comparisons of student achievement via face-to-face and distance components will provide a substantive basis for data-driven decision making about change.

2. These faculty members can work with the younger and new faculty members to first get

them to change their negative attitudes and second to start trying distance delivery in their classes. As suggested above, if faculty members gather outcomes data on distance learning, the data may help convince younger and new faculty of the effectiveness of distance delivery.

3. For the two points raised above to succeed, collaboration with universities that have already adopted distance education, and faculty working there is needed. Without their guidance and assistance, it will be hard for the change to take place effectively.

Second, in their effort to build collaboration with universities that have already adopted distance education, faculty members, who are in favor of applying distance education, should seek assistance of the faculty members who have been teaching overseas, especially in western universities. Of course, it cannot be assured that these faculty members' previous experience in teaching overseas will mean they support the use of distance education in the Middle East because these faculty members were not covered in the study. Yet, it is likely that they have had experience teaching in educational environments that have more support and more adoption of distance education. With educational systems that look at Western education as more advanced, these faculty members will have a strong voice in introducing and leading distance education. One aspect that these faculty members can work on is facilitating collaboration between universities in the Middle East and Western universities. This collaboration can be represented in offering the opportunity to employees, especially those in the field of education, to pursue higher degrees, training, occasional training, or even lifelong education programs via distance with Western universities that offer distance courses.

Third, the study showed that negative attitudes toward economic factors tended to decrease with the faculty members who have more experience. These faculty members, as has

been pointed out above, are more concerned with the quality of education (Sumrall, 2002). I think that while seeking quality in education, ministries of education and higher education in the Middle East should not ignore and cast distance education as low quality education. Instead, they can provide laws and policies that outline and frame the structure of good distance education and then adopt, encourage, and give it the opportunity to compete with the regular traditional system. As suggested earlier, comparison data between face-to-face and online learning activities in given courses may provide a substantive basis for supporting arguments for the quality of distance delivery.

Fourth, the study showed that there were more negative attitudes toward cultural and social factors. Some of the aspects highlighted by the survey were social problems especially for females due to the need for more electronic communication with the males in a distance delivery environment, issues of cheating, and society undervaluing the degree earned via distance education. Middle Eastern society does not accept what may look like a threat to its cultural, social and religious beliefs. I believe that media, especially TV, should be utilized to assist in eradicating this misconception. Television has played a major role in dealing with cultural issues in the Middle East. One example is the introduction to Satellite TV channels about 15 to 20 years ago. Being open to uncontrolled broadcasting and offering foreign channels, Satellite TV at that time was a threat to the Middle Eastern culture so much so that it was banned, and many religious figures disapproved of it. A few years later, and with the help of some accepted satellite channels, local TV and other media channels, the negative notion was overcome. Now, we can see satellite channels that are completely devoted to religion and run by those who disapproved of them earlier. I believe these satellite TV channels, which go into almost every home in the Middle East now, can play a major role in showing the positive aspects of distance

education and pointing out the issues that implementation of distance education can solve. These aspects include promoting that one female teacher via distance can reach many female students who do not necessarily need to leave their homes. Another aspect is the opportunity distance education brings to employees who do not need to leave their work when they decide to go on with their higher education.

Fifth, efforts in the Middle East to utilize distance education should seek help from foreign organizations, like UNESCO, that work on helping education reforms in the third world. Among its efforts to put pressure on governments in the third world to conduct educational reforms, the United Nations, represented by UNESCO, can play an effective role in introducing distance education to help the education in the Middle East. The information in Chapter 2 presented by the World Bank (1999) report in regards to the status of education and the following United Nations statistics about literacy in the Middle East can help point out the need for such an action by the UNESCO. According to Roudi-Fahimi and Moghadam (2003), citing the UNESCO's literacy statistics of 2003, literacy in the Middle East experienced a remarkable growth in many Middle Eastern countries. This growth was represented in an increase of elementary school enrollment and a decrease in the gender gap in the secondary school levels. Yet, according to Roudi-Fahimi and Maghadam, a real challenge is that in many Middle Eastern countries, in the secondary school and higher levels, more people, especially females, "are still excluded from education, and many more are enrolled in school but learning too little to prepare them for 21st-century job markets" (p. 1). According to the UNESCO Institute for Statistics, as cited in (Roudi-Fahimi & Moghadam, 2003), in the UAE, enrollment of male students decreased from 99% in the elementary school to 71% in the secondary school and the females from 99% to 80%. This is even worse in countries like Kuwait and the worst in Yemen where male student

enrollment of 96 % in elementary level dropped to 69% in the secondary level. The ratio of female dropouts was staggering, moving from 61% in elementary to only 21% in secondary. This problem becomes worse with the high birth rate in the Middle Eastern countries that make governments more unable to provide services. Utilizing distance education will ease the pressure put on traditional institutions, especially teacher training institutions and thus open the doors to thousands of teachers-to-be in the near future. In addition to that, almost all the in-service teachers will have the opportunity to pursue higher degrees and be involved in literacy programs.

Summary

This chapter presented a discussion of the findings, recommendations for future research and recommendations for practice. Faculty members in the Middle Eastern countries showed significantly more negative attitudes than those in the United States toward the application of distance education in the different factors addressed by the study. As with the correlations between the availability of distance education tools in the universities and all distance education factors addressed in the study, there were statistically significant negative and weak correlations between the availability of distance education tools in the universities and these factors.

Application of distance education in the Middle East in its full form is still lagging. The need for a well-established distance education system in the Middle East is clear, and the promise of bringing education to a wider portion of the population is critical. To help reach this future, the researcher presented suggestions for future research, and recommendations for practice.

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APPENDIX A

Survey in English

Part 1

Demographic information

Please fill in the following about yourself

Gender

Male ⃝   Female ⃝

Q2   Country of Birth

USA ⃝   Middle East ⃝   Another Country ⃝

Nationality	
University you currently teach in	
Number of years of teaching Experience	
First language	

Please, select "Yes" or "No" in the following:

	Yes	No
Have you ever taught in a university in which the first language is different from the first language of the university you currently teach in?	⃝	⃝
Have you ever been a student in a distance education class?	⃝	⃝
Have you ever designed a distance education class?	⃝	⃝

Have you ever taught a distance education class?	○	○

Part 2

In the following sections, please indicate your attitude about each of the items by clicking the most appropriate level of agreement

Section 1: Attitudes toward the use of technology

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Students do not have sufficient skill to use the computer for learning purposes.	○	○	○	○	○
Faculty members can use technology well to offer their courses as distance classes.	○	○	○	○	○
Faculty members are not very familiar with using the computer.	○	○	○	○	○
Students have access to use technology in their education.	○	○	○	○	○
It is easy to have available all the computer software, programs, and platforms (like Blackboard, WebCT, etc.) needed for distance education.	○	○	○	○	○
Faculty members find difficulty in using the computer software, programs and distance education tools (like Blackboard, WebCT, etc.).	○	○	○	○	○
Students find difficulty in using the computer software, programs and distance education tools (like Blackboard, WebCT, etc.).	○	○	○	○	○
Filtering of several internet websites represents a hurdle in applying	○	○	○	○	○

successful distance education.					
Faculty members need a lot more effort and time in preparing for distance education than for traditional face to face education.	○	○	○	○	○

Section 2: Attitudes toward cultural and social factors

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Students are not autonomous enough to be responsible for their own learning.	○	○	○	○	○
Using the internet for long hours does not cause the students any social problems especially for female students.	○	○	○	○	○
Electronic communication between students of different genders does not lead to any social problems among students.	○	○	○	○	○
Distance learning makes it more difficult to control cheating.	○	○	○	○	○
The degree earned by graduates of distance education programs is undervalued by society.	○	○	○	○	○
Distance education has a negative effect on the students' ability to interact with others face to face.	○	○	○	○	○
Distance education will help increase the number of university-level female students.	○	○	○	○	○

Section 3: Attitudes toward economic factors

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Using a distance education system is too costly for the university.	○	○	○	○	○
As far as the fees are concerned, distance education will not be more expensive than traditional education for the students.	○	○	○	○	○
The university will need to hire more employees to support distance education resulting in an increase in the financial cost for the university.	○	○	○	○	○
Additional costs will be incurred to cover faculty members training to use distance education.	○	○	○	○	○
Distance education adds an indirect cost for the students (buying a computer, paying for an internet connection, buying software etc.)	○	○	○	○	○
Limited financial resources of the university pose an additional limit to adopting distance education.	○	○	○	○	○

Section 4: Attitudes toward location

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
There is no need to apply distance education in small countries. (Small geographically and/or in population.)	○	○	○	○	○
The need to apply distance education increases in countries where there are	○	○	○	○	○

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
crises or war due to the insecurity in these regions.					
The need to apply distance education is critical in countries that have many distant, rural-populated regions.	○	○	○	○	○
It is difficult to apply distance education in economically depressed countries.	○	○	○	○	○
It is difficult to apply distance education in the countries that are developing technologically.	○	○	○	○	○

Section 5: Attitudes toward educational factors

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
In distance education, a faculty member cannot represent a role model for his or her students.	○	○	○	○	○
In distance education, it is possible to convey values like respect, punctuality, and other hidden curriculum values to the students.	○	○	○	○	○
Distance education negatively affects students' ability to speak in front of an audience.	○	○	○	○	○
It is easier for distance students to use academically inappropriate ways to complete assignments and tests.	○	○	○	○	○

Section 6: Attitudes toward academic achievement

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Academic achievement for students in traditional face to face education is better than that of distance education.	○	○	○	○	○
It is difficult to teach scientific subjects like Math and Physics via distance.	○	○	○	○	○
It is impossible to teach classes that need practical laboratory sections, like chemistry, via distance education.	○	○	○	○	○
Faculty members in distance education settings are less qualified academically than faculty members in traditional face to face education settings.	○	○	○	○	○
The material presented in traditional face to face education is more academically beneficial to the students than the material in distance education.	○	○	○	○	○
Distance education makes it difficult for the faculty members to use various teaching strategies.	○	○	○	○	○

Section 7: Attitudes toward policies

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Admission policies in the university do not negatively affect the application of distance education.	○	○	○	○	○
Government (i.e., State) policies that are related to education make it difficult to apply distance education.	○	○	○	○	○
Government organizations and institutions do not hire graduates of distance education programs.	○	○	○	○	○
Policies and laws in private organizations and institutions state that graduates of distance education cannot apply for jobs in these private organizations or institutions.	○	○	○	○	○
Policies and rules in state and private universities represent an obstacle to students wishing to complete their graduate education (like Masters' or PhD).	○	○	○	○	○

Part 3

Availability of distance education tools in the universities

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Each faculty has a computer in his or her office.	○	○	○	○	○
The Internet is available in all the main university buildings.	○	○	○	○	○
The Internet available in the university is fast (for example, broadband).	○	○	○	○	○
Wireless access is available on campus.	○	○	○	○	○
The computer labs available on campus are suitable for the number of students at the university.	○	○	○	○	○
The computer labs are supplied with Internet service.	○	○	○	○	○
Students have easy access to the computer labs (for example, not limited to certain times or requiring special permission to use them).	○	○	○	○	○
Computer and technology services centers (i.e., a help desk) are available for faculty members.	○	○	○	○	○
Computer and technology services centers (i.e., a help desk) are available for students.	○	○	○	○	○
University libraries have websites that offer electronic services to help distance education students (i.e., online library search, available electronic journals etc.).	○	○	○	○	○
The university has a website that offers all services that the distance education student may need (i.e., admission information, online	◉	○	○	○	○

registration, adding and dropping classes etc.).						
A university email account is available for each of the faculty members.	○	○	○	○	○	
A university email account is available for each of the university students.	○	○	○	○	○	
The university offers distance education training courses on applying and using distance education.	○	○	○	○	○	
Distance education delivery tools, like blackboard, WebCT, etc., are available.	○	○	○	○	○	

APPENDIX B

Survey in Arabic

<div dir="rtl">

اتجاهات أعضاء هيئة التدريس في الشرق الأوسط نحو استخدام نظام التعليم عن بعد في جامعات الشرق الأوسط: مقارنة بين أعضاء هيئة التدريس في الشرق الأوسط وأعضاء هيئة التدريس في الولايات المتحدة الأمريكية

الجزء الأول

معلومات ديموغرافية:

الجنس

○ أنثى   ○ ذكر

بلد المولد

○ اليمن   ○ الكويت   ○ الإمارات   ○ البحرين   ○ السعودية   ○ بلد عربي اخر   ○ بلد غير عربي

الجنسية [____]

اسم الجامعه التي تدَرِّس فيها حالياً [____]

عدد سنوات الخبرة في التدريس [____]

اللغة الأم [____]

اختر الإجابة المناسبة

لا	نعم	
○	○	هل سبق وأن درَّستَ في جامعة لغتها الأم تختلف عن اللغة الأولى للجامعة التي تُدَرِّس فيها حالياً؟
○	○	هل سبق وأن دَرَسْتَ عن بعد؟
○	○	هل سبق وأن قُمْتَ بتصميم مادة دراسية تُدَرَّس عن بعد؟
○	○	هل سبق وأن قمت بتدريس مادة دراسية عن بعد؟

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الجزء الثاني

اختر الإجابة التي تمثل اتجاهاتك في المحاور التالية

المحور الأول: الاتجاهات نحو استخدام التكنولوجيا

	موافق بشدة	موافق	غير متأكد	غير موافق	غير موافق بشدة
الطلاب ليس لديهم المهارة الكافية لاستخدام الكمبيوتر للأغراض التعليمية	○	○	○	○	○
أعضاء هيئة التدريس لهم القدرة على استخدام التكنولوجيا بشكل جيد في تقديم موادهم الدراسية بنظام التعليم عن بعد	○	○	○	○	○
ليس لدى أعضاء هيئة التدريس إلمامٌ جيد بكيفية استخدام الكمبيوتر	○	○	○	○	○
يتيسَّر للطلاب استخدام التكنولوجيا في التعلم	○	○	○	○	○
من الممكن توفير كل برامج الكمبيوتر والوسائل الإلكترونية (مثل البلاك بورد، الويب سي تي إلخ) التي تساعد على تطبيق نظام التعليم عن بعد	○	○	○	○	○
يجد أعضاء هيئة التدريس صعوبةً في استخدام برامج الكمبيوتر والوسائل الإلكترونية (مثل البلاك بورد، الويب سي تي إلخ) التي تساعد على تطبيق نظام التعليم عن بعد	○	○	○	○	○
يجد الطلاب صعوبة في استخدام برامج الكمبيوتر والوسائل الإلكترونية (مثل البلاك بورد، الويب سي تي إلخ) التي تساعد على تطبيق نظام التعليم عن بعد	○	○	○	○	○
فلترة كثير من المواقع الإلكترونية تمثل عقبةً أمام تطبيق نظام ناجح للدراسة عن بعد	○	○	○	○	○
يحتاج أعضاء هيئة التدريس إلى وقت أطول وجهد أكبر في إعداد المادة الدراسية لنظام التعليم عن بعد- عنه في اعدادهم للمادة الدراسية التقليدية وجها لوجه	○	○	○	○	○

المحور الثاني: الاتجاهات نحو العوامل الثقافية والاجتماعية

	غير موافق بشدة	غير موافق	غير متاكد	موافق	موافق بشدة
الطلاب غير مهيئين بما فيه الكفاية للاعتماد على أنفسهم في التعلم	○	○	○	○	○
استخدام الطلاب للإنترنت لساعات طويلة لايؤدي الي خلق مشاكل اجتماعية و بالذات للطالبات	○	○	○	○	○
التواصل الإلكتروني بين الطلاب من الجنسين لايؤدي إلى حدوث أي مشاكل اجتماعية بين الطلاب	○	○	○	○	○
الدراسة عن بعد تزيد من صعوبة ضبط حالات الغش	○	○	○	○	○
المجتمع ينظر نظرة دونية للدرجة العلمية التي يحملها خريجو نظام التعليم عن بعد	○	○	○	○	○
للدراسة عن بعد تأثير سلبي على قدرة الطلاب علي الحوار مع الآخرين وجها لوجهه	○	○	○	○	○
التعليم عن بعد سوف يساعد على زيادة عدد الطالبات في المستوى الجامعي	○	○	○	○	○

المحور الثالث: الاتجاهات نحو العوامل الاقتصادية

	غير موافق بشدة	غير موافق	غير متاكد	موافق	موافق بشدة
تطبيق نظام التعليم عن بعد مكلّف جدا للجامعة	○	○	○	○	○
فيما يتعلق بالرسوم الدراسية، الدراسة عن بعد لن تكون أكثر تكلفة على الطلاب من الدراسة بالنظام التقليدي (وجها لوجه)	○	○	○	○	○
سوف تحتاج الجامعة إلي زيادة أعداد الموظفين لدعم نظام التعليم عن بعد مما يؤدي إلي زيادة الأعباء المالية على الجامعة	○	○	○	○	○
أعباء مالية إضافية سوف تتحملها الجامعه مقابل تدريب أعضاء هيئة التدريس لاستخدام الدراسة عن بعد	○	○	○	○	○
الدراسة عن بعد تضيف أعباءً مالية غير مباشرة على الطلاب مثل شراء كمبيوتر، اشتراك انترنت، شراء برامج إلخ	○	○	○	○	○

	موافق جدا	موافق	غير متاكد	غير موافق	غير موافق بشدة
محدودية الموارد المالية للجامعة تمثل عائقاً إضافياً أمام تطبيق نظام التعليم عن بعد	○	○	○	○	○

المحور الرابع: الإتجاهات نحو العوامل المكانية

	موافق جدا	موافق	غير متاكد	غير موافق	غير موافق بشدة
لاتوجد حاجة إلى تطبيق نظام التعليم عن بعد في الدول الصغيرة. (الدول الصغيرة في المساحة أوفي عدد السكان أوفي كليهما	○	○	○	○	○
يزداد الاحتياج إلى تطبيق نظام التعليم عن بعد في مناطق الكوارث أوالحروب نظراً لعدم توفر الأمان في هذه المناطق	○	○	○	○	○
توجد حاجة ماسة لتطبيق نظام التعليم عن بعد في الدول ذات المناطق النائية والريفية	○	○	○	○	○
يصعب تطبيق نظام التعليم عن بعد في الدول الفقيرة	○	○	○	○	○
يصعب تطبيق نظام التعليم عن بعد في الدول غير المتطورة تكنولوجياً	○	○	○	○	○

المحور الخامس: الاتجاهات نحو العوامل التربوية

	موافق بشدة	موافق	غير متاكد	غير موافق	غير موافق بشدة
لايستطيع عضو هيئة التدريس أن يمثِّل القدوة الحسنة لطلابه في نظام الدراسة عن بعد	○	○	○	○	○
في نظام الدراسة عن بعد يمكن نقل القيم التربويه إلي الطلبة مثل الإحترام، تقدير الوقت،وغيرها من قيم المنهاج الخفي	○	○	○	○	○
نظام الدراسة عن بعد يؤثر سلباً علي قدرة الطالب علي التحدث أمام الجمهور	○	○	○	○	○
من السهل علي الطلاب في نظام التعليم عن بعد اتباع أساليب غير مقبولة أكاديميا في حل الواجبات والامتحانات	○	○	○	○	○

المحور السادس: الإتجاهات نحو العوامل الأكاديمية

	موافق بشدة	موافق	غير متاكد	غير موافق	غير موافق بشدة
التحصيل الأكاديمي للطلاب في الدراسة التقليدية (وجها لوجه) أفضل منه في التعليم عن بعد	○	○	○	○	○
يصعب تدريس المقررات العلمية كالرياضيات والفيزياء في نظام التعليم عن بعد	○	○	○	○	○
لايمكن تدريس المقررات التي تحتاج إلى تطبيق عملي في المختبرات مثل الكيمياء في نظام التعليم عن بعد	○	○	○	○	○
أعضاء هيئة التدريس في نظام التعليم عن بعد أقل كفاءةً من الناحية الأكاديمية من أعضاء هيئة التدريس في النظام التقليدي وجها لوجه	○	○	○	○	○
المادة التعليمية المقدمة في النظام التقليدي وجها لوجه أكثر فائدةً من الناحية الأذكاديمية للطلاب من المادة التعليمية المقدمة في نظام التعليم عن بعد	○	○	○	○	○
نظام التعليم عن بعد يحد من قدرة عضو هيئة التدريس علي استخدام استراتيجيات تدريسية متنوعة	○	○	○	○	○

المحور السابع: الاتجاهات نحو القوانين

	موافق بشدة	موافق	غير متاكد	غير موافق	غير موافق بشدة
سياسات القبول في الجامعة لاتؤثر سلباً علي تطبيق نظام التعليم عن بعد	○	○	○	○	○
من الصعوبة بمكان تطبيق نظام التعليم عن بعد في ظل سياسات الدولة المتعلقة بالتربية والتعليم	○	○	○	○	○
مؤسسات الدولة الحكومية ومنشآتها لاتوظف خريجي أنظمة التعليم عن بعد	○	○	○	○	○
تنص قوانين وسياسات الشركات والمؤسسات الخاصة على عدم السماح لخريجي نظام التعليم عن بعد بالتقدم للعمل في هذه الشركات أو المؤسسات الخاصة	○	○	○	○	○
القوانين والضوابط المعمول بها في الجامعات الحكومية والخاصة تقف عائقاً أمام الطلاب الراغبين في إكمال دراستهم العليا (مثل الماجستير أوالدكتوراه	○	○	○	○	○

الجزء الثالث

توفر الأدوات اللازمة لتطبيق الدراسة عن بعد في الجامعات

	موافق بشدة	موافق	غير متاكد	غير موافق	غير موافق بشدة
يتوفر لكل عضو هيئة تدريس في الجامعة جهاز كمبيوتر في مكتبه	○	○	○	○	○
خدمة الإنترنت متوفرة في كل المباني الرئيسة في الجامعة	○	○	○	○	○
تتوفر خدمة انترنت سريع في الجامعة (برودباند على سبيل المثال	○	○	○	○	○
تتوفر خدمة الإنترنت اللاسلكي (الواير ليس) في نطاق الحرم الجامعي	○	○	○	○	○
عدد مختبرات الكمبيوتر المتوفرة في نطاق الحرم الجامعي تتناسب مع أعداد الطلاب في الجامعة	○	○	○	○	○
مختبرات الكمبيوتر مزودة بخدمة الإنترنت	○	○	○	○	○
ميسّر للطلاب استخدام اجهزة الكمبيوتر في معامل الكمبيوتر (مثلا، لاتوجد أوقات معينة للإستخدام أو يطلب من الطلاب أخذ إذن مسبق لاستخدام هذه الأجهزة	○	○	○	○	○
مراكز الدعم التقني للكمبيوتر والتكنولوجيا متوفرة لأعضاء هيئة التدريس	○	○	○	○	○
مراكز الدعم التقني للكمبيوتر والتكنولوجيا متوفرة للطلاب	○	○	○	○	○
يوجد لدى مكتبات الجامعة مواقع إلكترونية تقدم خدمات إلكترونية تساعد الطلاب في الدراسة عن بعد (مثل البحث في موقع المكتبة الإلكتروني، توفر المجلات التربوية بشكل الكتروني إلخ	○	○	○	○	○
يوجد للجامعة موقع إلكتروني يوفرجميع الخدمات التي قد يحتاجها الطالب عن بعد (مثل معلومات عن القبول، التسجيل عن طريق الموقع الالكتروني، إضافة أو حذف مواد، إلخ	○	○	○	○	○
يتوفر بريد إلكتروني من موقع الجامعة الإلكتروني لكل عضو هيئة تدريس في الجامعة	○	○	○	○	○
يتوفر بريد إلكتروني من موقع الجامعة الإلكتروني لكل طالب في الجامعة	○	○	○	○	○

توفِّر الجامعة دورات في إستخدام وتطبيق التعليم عن بعد	○	○	○	○	○
تتوفر لدى الجامعة أدوات عرض وتقديم الدراسة عن بعد (مثل البلاك بورد والويب سي تي إلخ	○	○	○	○	○