Perceptions of online education at the King Faisal University: A case study

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By
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Abstract

There is a trend in Saudi universities to benefit from Internet penetration and online technologies that offer off-campus-based education. This includes creating online access to course resources and communication media. As a contribution to this movement, this thesis draws on case-study data of an online education programme offered at the King Faisal University (KFU) in the eastern region of the Kingdom of Saudi Arabia (KSA). The overarching purpose of this study is to determine the performance of this programme against the stated objectives of online education from students' and faculty members’ perspectives. A mixed method approach was applied with two types of questionnaires and 16 semi-structured interviews. Ultimately 551 students and 32 faculty members involved in this programme participated in the study. The study concludes that the KFU succeeds in offering accessible and flexible education, but some issues need to be addressed in order to improve the effectiveness of the online learning environment. The thesis concludes with a variety of solutions and recommendations that will result in better adoption and quality of online education in the KSA.
Acknowledgments

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I would like to take this opportunity to express my gratitude to the dean of e-learning and distance education at the King Faisal University, Dr. Abdullah Al-Najjar, for supporting my study. He provided me with valuable and clear advice on collecting the data. I am grateful to all of the study participants for their time and willingness to share their views.
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Chapter One: Introduction

1.1 Overview

It is undeniable that the growth of distance education has offered, on the one hand, tremendous opportunities for learning (Moore & Kearsley, 2005), and on the other hand, expanded responsibilities and challenges for institutions providing this pattern of education (Glahn & Gen, 2002; Levy, 2003; Evans, 2008). Along with this, researchers place more emphasis on the need to use special techniques and ways in delivering distance education that differ from those used in the conventional classroom (Evans, 1994; Harasim, 2000; Moore & Kearsley, 2005; Huang, 2002). There has to be a practice and policy alignment for distance education to be effective. In essence, it needs to be accomplished with a well-developed strategy in order to ensure that the institutional policies and objectives about online education are being attained (Wolcott, 1997; Simonson & Bauck, 2003; Murgatroyd, 2008).

Arab universities have witnessed a constant increase in the number of student enrolments in distance education over the last few years, specifically between 2002 and 2006. This increase in enrolment appears to be due to the availability of online technologies (Matar, Hunaiti, Halling & Matar, 2011). Similarly elsewhere, Jung (2008) points out that the number of distance learners in the Asia and Pacific region is estimated to be 500 million, distributed among various distance education institutions. Distance education models are imported to many countries within these regions from some western countries, including the USA and the UK. Additionally, some of the importing countries, such as India, China and Malaysia, have also transferred their experiences in this field to other countries in their region. Relatively speaking, it is difficult to identify a country, around the world, that does not somehow embrace distance education.

The Kingdom of Saudi Arabia (KSA) is one of those countries that have been influenced by globalization and recent shifts toward online education, although the history of distance education in the KSA stretches over several decades. “Correspondence” or print-based education has been offered by KSA universities, namely the King Saud University, King
Abdulaziz University and the Imam Mohammad Bin Saud University (Al Rawaf & Simmons, 1992) since the 1960s, under the name of “Intesab”, which is an Arabic synonym for distance education. Intesab includes any process of education that enables students to pursue their higher education without a need to attend lectures.

Over the past few years, however, efforts have been made within the country towards education that is delivered online. This effort can be largely attributed to the availability of the Internet as well as the extraordinary growth in the use of modern technologies for obtaining and sharing information. As a consequence of this movement, distance education programmes offering online courses have started to flourish and grow steadily as a new, flexible, and cost-effective means of education. As noted by Mitchel and O'Rourke (2008) distance education has become part of mainstream provision and a driving force of higher education in many places.

More recently, the educational system of the KSA has encountered an increase in the number of higher education institutions supported by huge revenue from the sale of oil. This revenue has been used to develop higher education in the KSA by enabling the government to use the surplus of the budget to meet the costs of education. This includes expanding the existing universities, building new ones and increasing learning resources (Almogbel, 2002). Because of this support, many higher education institutions in the KSA are able to expand their capacities and efficiencies to meet the diverse needs of their students. Some of these universities have shown an interest and commitment in offering online educational programmes and have already established deanships\(^1\) for e-learning and distance education. For example, deanships for e-learning and distance education have been established at King Abdul-Aziz University in Jeddah since 2004, King Faisal University since 2008, and more recently the Open Saudi University, opened in 2012. In total, 15 of the 25 public universities clearly articulate a vision, mission and core values for e-learning and distance education under their deanships’ websites. These deanships aim to facilitate e-learning as well as distance learning and ensure that education is accessible to students from a variety of locations, circumstances and backgrounds. Online educational programmes that are being offered in KSA universities are mostly for undergraduate degrees and in popular majors

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\(^1\) A deanship is a common term used in most Arab universities to describe an administration office that is in charge of a college, faculty, or division in a university.
such as Islam, social science, business or Arabic language. It is worth indicating that all Saudi educational institutions that wish to embrace distance education must be licensed, and thereby achieve accreditation for their programmes. In other words, an educational institution that intends to provide distance education must achieve and maintain a list of conditions articulated by the Ministry of Higher Education under the name of “Regulations of Distance Education in the Higher Education Institutions in the KSA” (Mohe, 2010b).

Very broadly, using information and communication technologies such as web-based instruction, discussion boards or interactive multimedia in distance education programmes in the country is a relatively new approach. Several universities in the KSA have taken advantage of the Internet penetration and the availability of technology to offer online education programmes. In doing so, these programmes need to be developed with a well-structured plan that corresponds to the institutional values and goals, in order to ensure that this education accommodates and addresses learners’ needs (Garrison, 2000; Cohen, 2003; Jung, 2008).

1.2 The definition of distance education

There are many accounts in the literature of what distance education is. In most cases, it involves a process of teaching and learning that delivers the lesson content while the teachers and students are separated (Wedemeyer, 1981; Holmberg, 1986). More specifically, Moore and Kearsley (2005) define distance education as “planned learning that normally occurs in a different place from teaching, requiring special course design and instruction techniques, communication through various technology, and special organizational and administrative arrangements” (p. 2). For the purpose of this study, the researcher will use the term “online education” as a form of distance education in which access to online resources is readily available (Anderson & Simpson, 2007). That is, using the term “online education” narrows the focus of discussion to only the sort of distance education that is being offered via the Internet and wide range of technology (e.g., Blackboard and virtual classrooms). In this view, distance learners learn, interact, and communicate with their peers and teachers in an electronic learning environment. What follows is an account of the research problem, including statement of the problem, purpose and significance of study and research question.
1.3 Statement of the problem

The benefits of offering online education for learners and faculty, male and female, have been acknowledged by previous studies (e.g., Alaugab, 2007; Ziyadah, 2012). More specifically, the nature of distance education is well known to be an appropriate approach to education in the Arab world, in terms of widening access to higher education, lifelong and independent learning (e.g., Abouchedid & Eid, 2004; Alsunbul, 2002). However, the KSA and the Arabic region in general lack adequate research about the implementation of online education due to the short history of this mode of education (Al-Jarf, 2007; Matar et al., 2011).

The purpose of this research is to describe and analyze the perspectives of faculty members and students involved in the online education programme at the KFU, and compare these findings with the stated institutional objectives. This study strives to explore whether there is a gap between KFU policy and objectives for this programme and the reality perceived by those most closely involved – students and teaching staff. Specifically, it aims to investigate whether or not faculty members and students see the institutional objectives of online education are being attained.

1.4 Significance of the study

Online education is in its infancy in the KSA, but it is widely expected to be an important feature of higher education in the future. Online education holds the promise of assisting the Saudi educational system to meet the national vision, mission and objectives. The significant expansion in both the number of institutions and individuals involved in online education programmes imposes a constant demand to expand understanding in this area.

Relatively, few studies that have been published in the KSA have considered and discussed the common trend of online education and agreed issues, including exploring learners’ perceptions, teachers’ attitudes, online courses, and institutional support (Alhawiit, 2011; Albalawi, 2007; Alebaikan, 2010; Bendania, 2011). Numerous studies have been also carried out to examine the extent to which online education is suitable for females (Mogbel, 2002; Alaugab, 2007; Ziyadah, 2012). Yet, there is an absence of research investigating institutional design and structure, promoting quality assurance, and reviewing the national
goals of applying online education. This is especially true if we consider that institutions in the Arabic nations generally rate their success based on the learner’s satisfaction and outcomes, whereas less attention is being paid to the assessment of institutional performance in online education (Matar et al., 2011).

It is important to explore the critical, ongoing, and unexplored issues in online education in the KSA to further promote the development and success in meeting the objectives of online education that are designed by the Ministry of Higher Education. To this end, this study aims to examine the performance of the KFU online education programme in terms of the institutional objectives according to students’ and staff’s perspectives. This study is significant because it explores and reviews institutional goals from the perspective of students and faculty members based on a mixed-methods approach.

This study will be helpful to the KSA universities by assisting them to conduct a comparison between what they are doing and what they could be doing to enhance their progress in adopting online education. Although this research was conducted at one university, many of the recommendations would be also of great value for other online education programmes within the KSA. More specifically, findings from this study can shed some light on strengths and weaknesses that could make a difference to programme implementation. This project can be used by administrators involved in the KFU online education programme to better understand what has been achieved in terms of teachers’ participation, students’ learning and the effectiveness of online resources being used or developed. It also puts forward recommendations for developing an online education programme.

1.5 Research question

The aim of this project is to explore the online education programme at the KFU by answering the following question:

➢ To what extent are the institutional goals for online education being achieved from the perspectives of students and faculty members?
As mentioned earlier, there are many universities within the country that embrace online education, but for the purpose of this study only one was selected, namely the King Faisal University (KFU). One of the main reasons for selecting this University was the high number of student enrolments in its online education programme. Also, this University is located in an area that is accessible to the researcher. Finally, it has a relatively short history in offering online education, thereby the present study could shed some light on the online educational practices and the performance of this programme.

1.6 Overview of online education programme at the KFU

The King Faisal University is located in Al-Ahssa city. It was opened in 1975 to serve a very large geographic area in the eastern part of the Kingdom of Saudi Arabia (see Appendix A). KFU offers degrees in Education, Sciences, Medicine, Engineering, Business Administration, Dentistry, Arts, Veterinary Medicine and Animal Resources, Agricultural and Food Sciences, Computer Science and Information Technology, Clinical Pharmacy, Applied Studies and Community Service, Applied Medical Sciences, Law, Community Studies, and Community Studies for Female Students.

In 2008, the University became a dual-mode institution when it commenced a distance education programme via distance courses under the name of “The developed education of Intesab” or “Distance Education”. Currently, there are 30,873 male and female students enrolled in face-to-face education and 1,401 staff members distributed across 16 faculties. In the distance education programme, however, there are around 67,000 students, more than double the number of the University’s on-campus students. Male students comprise 60% of the distance students (KFU, 2012). The KFU’s rationale was intended to establish lifelong learning, and support independent as well as collaborative educational practices. It is worth noting here that this programme, in the first year, was quite similar to the previous correspondence or print-based education programmes that were dominant in the country. The use of online technologies in lesson activities (e.g., electronic quizzes, discussion forums) was not compulsory for students. They had the right to opt out of online activities such as discussion or group work. In 2009, an online delivery mode was integrated into the programme and applied as the primary instructional method. Since then all papers included in the “Intesab” programme have been delivered online via the Internet and online
technologies. The KFU aims to develop its educational processes by creating an integrated learning environment that is well managed, employs the latest technologies, and that corresponds with its policies (KFU, 2012).

The adoption of an electronic learning environment as a new medium for education at the KFU could be attributed to the growth of distance education programmes within the KSA and around the Arabic region. Furthermore, there has been a remarkable movement towards, and public demand for, this type of education, and thus the University responded in establishing a timely initiative. The online education programme of the KFU is based on Blackboard, a medium that delivers course content and contains the main instructional materials. Blackboard is designed to be the interactive basis of the course work by offering a communication and interaction platform (e.g., discussion forums and synchronous/asynchronous lectures). In all online courses the total paper mark is divided into two parts: 70% for the final exam and 30% for internal assessment. The latter is also divided equally into three parts: answering content-related questions, participating in a forum discussion, and downloading the lectures. This assessment regime is used for all papers and across all faculties included in the KFU’s online education programme. Besides, each online paper is divided into 14 themes and sets of online activities that occur over one semester. This programme uses multiple media to enable group interaction and exchanges at any time and place convenient to students. It can be fairly stated that such a structure potentially ensures students’ interaction with their study and teachers throughout the semester. This programme also provides distance learners with an opportunity to choose the nearest place to sit exams among more than 100 exam centres in and outside the KSA, where male and female students are separated. It is recognized that most of the students who are enrolled in this programme have been away from formal education for some time and thus an orientation programme has been organized for them. This preparation session includes a short lecture that covers the critical components of each paper, such as lesson activities, assignments, expectations of workload and exam information. The orientation lecture is available on Blackboard at the beginning of each semester to ensure that students are on the right track.

Despite the short history of this programme compared with the online education programmes in other universities in the KSA, the KFU has encountered a huge number of
enrolments that reflects the growth in demand for flexible online education. The KFU is open to all interested learners who have already graduated from the high school regardless of their age, gender or location. This accessibility has created an online learning environment that motivates students within the KSA and beyond the Kingdom, including learners from Kuwait and Qatar to join this programme. Moreover, this programme has offered extended opportunities of young people who have not been accepted into formal education due to their low grades in high school or the limited places in Saudi universities. Also, this programme attracts those students who live in rural areas, working people who seek work-related skills, or people interested in expanding their knowledge and obtaining another degree. So far, this programme is being offered only in three faculties: the College of Education, which includes a bachelor’s degree in teaching students with special needs and impairments; the College of Arts which offers a basic bachelor’s degree in six majors, Social Science, Arabic language, English language, Islamic, Geography and History; and the College of Management, which offers a bachelor’s degree in business administration.

Furthermore, while there are a huge number of distance learners in this programme, it appears from the University’s website that only 133 lecturers are involved in teaching its courses. The lecturers are from a wide range of nationalities, backgrounds and cultures (e.g., Egypt and Jordan). They are teaching online instead of, or in addition to, teaching face-to-face classes. They are all given cell phones and email accounts so distance students can contact them within specified hours during the semester. Lecturers’ numbers and a timetable of their virtual office hours can be found on the university website. In addition, each paper in this programme has three online lectures in which the teacher can meet his/her students and answer their questions on the subject matter in a virtual classroom that offers synchronous communication opportunities. These online lectures enable synchronous interaction and discussion between students and teacher. They are announced in advance so students can prepare themselves to participate online during the lecture broadcast.

In essence, considering the KFU’s strategic plan of implementing an online educational programme, it is clear that it seeks an educational learning environment that is supported by online technology. Furthermore, the KFU plans to apply the highest international standards of excellence and quality (KFU, 2012). Along with this strategic plan, the KFU has
announced its vision, mission and objectives for this new pattern of education under the deanship of e-learning and distance learning’s website.

For the purpose of this study, the researcher will review the main objectives of the online education programme at the KFU in order to determine the extent to which these objectives are attained. The deanship of e-learning and distance education at the KFU has formulated 20 objectives in harmony with the context of its policy. These objectives are elaborated in Arabic statements and can be retrieved easily from the deanship website (see Appendix B). These statements were retrieved and carefully translated into English (see Appendix C). It is observed that there is some overlap and replication among these statements. Specifically, some of these statements can be combined because they offer the same details but in a different formulation. Thus, the researcher strived to maintain the main objectives and discard the repeated statements. As a result, these statements were reviewed and summarized into a new set of objectives that contains 15 objectives. This reduced set covers and represents all institutional objectives stated in the KFU website. These objectives were classified into three main themes based on commonality and intersections found among them as represented in Table 1. This technique of classifying the institutional objectives help in organizing the research structure and make it easy to follow as each theme contains related objectives. It will help in presenting the findings from the collected data in a logical order and then to discuss them in relation to the relevant literature.

Table 1

The summarized objectives of online education at the KFU

<table>
<thead>
<tr>
<th>No.</th>
<th>Theme One: Accessible and flexible online education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Widening the access to higher education and responding to the growing social demand for this type of education.</td>
</tr>
<tr>
<td>2</td>
<td>Creating an electronic learning environment that motivates students off campus and from all over the KSA to study at the University.</td>
</tr>
<tr>
<td>3</td>
<td>Promoting flexible learning, and liberating it from conventional constraints, including time and place.</td>
</tr>
<tr>
<td>4</td>
<td>Reducing the cost of education and making it accessible to every member of the community according to his/her abilities and interests.</td>
</tr>
<tr>
<td>5</td>
<td>Designing a variety of educational resources and using multiple media in order to capture students' interest and increase their engagement and interaction.</td>
</tr>
</tbody>
</table>
1.7 Chapter summary

This chapter provided an overview of the research problem. It pointed out the trend of increasing online education programmes in the KSA but with little attention given to the performance and success of these programmes about institutional objectives. Specifically, it included a brief description of distance education, statement of the problem, the significance of the study, and the main research question. The final section of this chapter provided an overview of the online education programme at the KFU and the main objectives of this programme. The following chapter will examine the literature that considers the implementation of online education both worldwide and in the Arabic region.
Chapter Two: Literature Review

2.0 Introduction

This chapter explores the literature on the use of the Internet and online technologies used in distance education. The first section provides an overview of distance education. The terms *e-learning* and *online education* are briefly discussed in the second section. The third section reviews the literature related to online education worldwide. The fourth section describes the context of online education in the Arab region and particularly in the Kingdom of Saudi Arabia (KSA). On the one hand, it highlights some of the possible reasons behind the increase in online education programmes, and on the other, shows the main factors hindering the development and success of these programmes.

2.1 Overview of distance education

Distance education was introduced in the mid-nineteenth century as a means to overcome the geographic separation between the learner and teacher. It developed from correspondence learning via post to the second generation in which radio and television were used to broadcast the lessons. The third generation was characterized by the open universities of the late 1960s. Then in the 1980s, technologies were introduced to provide two-way interactive communications including audio conferencing and video conferencing (Matthews, 2002; Onay, 2002; Bates, 2008). More recently, however, distance education has involved intensive use of the Internet and other digital technologies that offer unprecedented learning opportunities at reasonable cost (Moore & Kearsley, 2005). Throughout these developmental stages, several definitions of distance education have emerged, each reflecting the means of teaching. Haughey, Murphy and Muirhead (2008) define the general trend of distance education as “involving mediated learning opportunities, whether available in synchronous or asynchronous time, individually or in groups, but involving a formal system of student support” (p. 147).

Historically, distance education has been linked to “anytime and anywhere education” (Harasim, 2000), though many researchers were quick to note that the significant difference
between distance and face-to-face education should not only be attributed to the physical separation between the learner and teacher. Rather, the pedagogical distance that implies a fundamental shift in the educational paradigm should be considered as well (Wedemeyer, 1981; Hongmei, 2002; Moore & Kearsley, 2005). The use of the Internet in distance education has somewhat bridged geographical distance and diminished isolation within the learning environment. The availability of the new technologies and the use of the Internet make distance education more reliable, concrete and compatible to the traditional pattern of education (Burge & Polec, 2008; Anderson, 2008; Bates, 2005). As Hana (2003) indicates, “the development and deployment of the Internet has radically alerted the technological environment for distance learning, opening up many possibilities for connecting learners and teachers” (p. 73). Based on an extensive literature review, Bernard et al. (2004) and Means, Toyama, Murphy, Bakia, and Jones (2009) demonstrate that in most cases distance learners achieve the same as learners in the traditional classroom, if not better. Networked classrooms, online access to course materials and knowledge networks, and computer conferencing are seen as both a benefit and enhancement in instructional quality (Harasim, 1996). In turn, distance education with online technologies attracts adults with limited time, individuals of all ages, and individuals from different cultures and nationalities (Palloff & Pratt, 2003).

2.2 E-learning and online education

E-learning is a very broad term that is used interchangeably with the term online learning in which asynchronous and synchronous learning activities are based on ICT tools and software (Naidu, 2003). Specifically, Stokes (1999) proposes that e-learning is “a means of becoming literate involving new mechanisms for communication: computer networks, multimedia, content portals, search engines, electronic libraries, distance learning, and Web-enabled classrooms” (p. 56). Various definitions have been assigned to the term online education in the literature. These definitions normally reflect the practices and the technologies used to create an online learning environment (Ally, 2008). These definitions include web-based instruction, technology-mediated learning or network learning. In other words, online education is commonly described as a form of distance education in which access to online resources is available (Anderson & Simpson, 2007; Bates, 2005). Another perspective in defining online education comes from Harasim (2000):
Online education is not the same as distance education, although it shares some of the same attributes. Both are any place, any time, and largely text-based. However, the critical differentiating factor is that online education is fundamentally a group communication phenomenon. In this respect, it is far closer to face-to-face seminar-type courses. (p. 49)

Online education, therefore, includes a variety of media and applications that provide the learner with feedback, interaction and access to course materials. As such, and before discussing some implications of online education, it is perhaps worth noting again that the term *online education* is primarily used in this study to illustrate a distance education programme in which the bulk of learning takes place in an electronic learning environment. That is, distance learners use the Internet and interactive technological software to complete learning activities and achieve learning outcomes.

**2.3 Selected aspects of online education**

Online education is a very broad field and has several aspects and implications. Thus, the researcher has classified this section into three different categories. This is in relation to the institutional objectives of online education at the King Faisal University (KFU) and the proposed themes outlined in the previous chapter: accessibility and flexibility in online education, the effectiveness of online education, and quality assurance of online education.

It is noteworthy that since the emergence of online education in the Arabic region it has received little attention in the literature. Therefore, this section reviews the literature related to international contexts. The few studies pertinent to online education in the Arab world that do exist will be examined later in this chapter.

**2.3.1 Accessibility and flexibility in online education**

In reviewing the literature, many reasons have been associated with the need for accessible and flexible learning opportunities. To begin with, the increasing demands for lifelong learning, the growth in education consumers, and the need to offer educational opportunities for quality of life alert the need for addressing the flexibility aspect in education (Mitchel & O'Rourke, 2008; Kearsley, 1985; Cavanaugh, 2002). To the distance learner, education beyond the traditional age of learning could mean new opportunities for employment, professional development or simply finishing a degree (Dalziel, 2003; Granger & Benke,
Further, it is appropriate for employees with little extra time, people in rural areas, international students, and those with home responsibilities. As Moore and Kearsley (2005) acknowledge, “more people are obtaining access more easily to more and better learning resources than they could in the past, when they had to accept only what was locally provided” (p. 19).

In addition to these reasons, designing an online educational programme seems to be appropriate to programme providers as an efficient method of widening access to learning. Typically, higher educational institutions regard it as a practical solution to overcome funding constraints and to meet the growth in student populations (Garrison, 1993; Haughey et al. 2008; Naidu, 2003). Online education has become an acceptable and commonplace form of learning (Kearsley, 2002). Besides, online education programmes could be an important revenue source for educational institutions (Hongmei, 2002) in a competitive environment. However, other researchers point out that institutions providing online education need to address the issue of study tuition fees to maximize student recruitment and retention. The cost of distance education needs to be affordable to target students and at acceptable expense. Therefore, for institutions there is a trade-off between maximizing revenue and attracting students (Evans, 1994; Palloff & Pratt, 2003).

As this is the case, what makes online education more accessible and flexible than ever? The availability of technology enables online education to accommodate and serve a wide range of student groups, including part-time, professionals, university graduates, adults who are time-strapped, and those who wish to secure their future (Matthews, 2002). Networked classrooms, web-based content, and synchronous or asynchronous learning contribute to efficient content delivery. These online activities expand the learning opportunities and provide students with a parallel or alternative learning environment to the traditional one. Campbell and Gibson (2008) argue that an online education environment can “support diverse cultures, languages, work contexts, learning needs and styles, prior experience, generations, economic circumstances, social context, and geographical location” (p. 342). Moreover, the availability of different types of communication could increase the learner’s engagement, interaction and collaboration in online courses. Anderson (2003) comments that the use of text-based communication “places a premium on quality student-student interaction that is supported in a format that allows for asynchronous reflection and
scholarly expression” (p. 8). On the same point, Bates (2008) adds that web-based learning has the ability to offer “a better opportunity to achieve academic goals such as creative and critical thinking, knowledge construction, problem solving, and collaborative learning than printed-based distance education” (p. 225). Further, online education can increase communication channels, overcome geographical distance and make the learner feel less isolated (Evans, 1994; Moore & Kearsley, 2005).

Distance education with online technologies becomes more flexible and promotes different ways of learning and knowing. As articulated by Jonassen (2000), technology transforms the role of student from merely a receiver of knowledge to a knowledge generator. He suggests that learners use technology as an intellectual partnership to illustrate what they know, reflect on their experiences, promote group discussion, demonstrate personal constructions of meaning, and support mindful thinking. However, this does not necessarily mean that online education based on advanced technologies can accommodate all segments of society, or meet the diverse competencies and learning styles of students (Kearsley, 1998; Palloff & Pratt, 2003). A number of researchers have explored online education accessibility and flexibility and have suggested ways to maximize the benefits of this form of education. Students who enroll in online education must be well-oriented towards the course objectives and provided with the needed learning strategies, although they have the choice of where, when, and how to learn (Granger & Benke, 1998; Cohen, 2003; Palloff & Pratt, 2003). Online learners need to be independent, motivated, and self-organized (Hongmei, 2002; Dillon & Greene, 2003; Moore & Kearsley, 2005). In this respect, learners are responsible for controlling their own learning and seeking the appropriate time, place, type of information and resources required (Kearsley, 2002; Moore, 1994). More specifically, Cohen (2003) highlights that distance learners would have to “construct their knowledge without an instructor ever present to guide their learning” (p. 106). Essentially, they need a control over their learning as well as directed choices (Cohen, 2003; Ally, 2004).

The flexibility of an online course is found to be a critical element when offering distance education. Online education providers should offer the learners a space of autonomy and flexibility with adequate support services (Anderson & Garrison, 1998; Jung, 2012). Wheeler (2003) notes that, “Flexibility can be measured not only in terms of the student’s choice of where to study and when to study, but also by personal control over the study
regime” (p. 179). Students in continuing education normally have a job, family responsibilities, or social or work-related obligations. This suggests that institutions should address the diversity in backgrounds and contexts of learners to enable them to benefit from the availability of the online education environment (Palloff & Pratt, 2003; Sun, Tsai, Finger, Chen & Yeh, 2008). That means alternative activities (e.g., working in groups) and flexible modes of the online environment are essential in order to accommodate the differences within learners, help them to feel less isolated, and also to maximize their retention (Ally, 2004).

2.3.2 The effectiveness of online education

The adoption of online education and factors influencing the success of such adoption has drawn the attention of many researchers. Findings in this respect suggest that higher education institutions that intend to offer an online education programme need to address many aspects. These include providing satisfactory guidelines for students to enhance their participation in online courses (Moore & Kearsley, 2005), structuring communication and interaction domains (Holmberg, 1986; Bates, 2008), and engaging students in active learning opportunities (Palloff & Pratt 2003).

Throughout the reviewed literature, it is recommended to include an orientation session in any online education. Students need to be informed of what is expected of them and how the online course works in order to increase their satisfaction, retention, and to further enhance the effectiveness of online courses (Granger & Benke, 1998; Cooper, 2002; Cohen, 2003; Moore & Kearsley, 2005). More specifically, Buchanan (2002) highlights that distance learners should be provided with course access at least three weeks ahead of course commencement, as well as reading materials and other resources. Students need to be guided into a new educational approach and explicitly exposed to what they are supposed to do and attain (Mason, 2008; Ally, 2004). Furthermore, exposing online learners to a course that is irrelevant to their work or interests needs considerable time and effort, provides ambiguous instructions or feedback, and involves insufficient interaction with fellows or teachers that could negatively impact on students’ performance in this course (Kearsley 1985; Granger & Benke, 1998; Sproke, 2008). It is, therefore, imperative for programme providers to consider
those learners who will never come to campus by designing adequate services that facilitate the processes of learning and teaching (Palloff & Pratt, 2003).

Understanding distance learners is found to be a significant element when providing an online education. Institutions should seek and address learners’ interests, capacities and styles of learning (Moore, 1994; Anderson & Garrison, 1998; Mitchel & O'Rourke, 2008; Jung, 2012). Evans (1994) stresses that the concept of open learning depends on “valuing and enhancing the openness of one’s teaching or training systems and processes to the needs, interests and contexts of learners, communities, industries or societies” (p. 19). This is especially true for online learning, where distance students are diverse in age, gender and background. As noted earlier by Gibson (1998), “Understanding of the dynamic nature of distance learner characteristics has profound implications for programme design, instruction and learner support … institutions should consider the wide range of students’ attitudes and behaviors” (p. 20). A well-structured relationship between teachers and their students can play a key role in bridging the distance gap, and such connection contributes to making students more comfortable and amenable to learn (Holmberg, 1986; Palloff & Pratt, 2003). Furthermore, students’ academic self-concept, needs and aspirations as well as the expectations of society are essential components in determining their persistence in higher education (Granger & Benke, 1998; Gibson, 1998; Sparkes, 1993; Cooper, 2002).

Increasing students’ familiarity with course activities and materials is another important aspect towards effective online education. Students need to know how and when to use the various learning materials, and they need to see a direct benefit of the course objectives (Cohen 200; Moore, 1994). More specifically, Naidu (2003) proposes that in online courses students are required to possess the skills and knowledge needed to use technology in accessing electronic libraries or bookstores, downloading or uploading online materials, and communicating with others through electronic means such as email or chat rooms. They need to be capable of finding, assessing, and judging the quality of online information. As noted earlier by Lundin (1998), distance learners need to be equipped with the skills needed to use, evaluate, and critically determine the authenticity of online sources and content. Other researchers stress the need for addressing some issues in relation to privacy, copyright and intellectual property in an online learning environment (Levy, 2003; Palloff & Pratt, 2003). At the same time, Sun, Tsai, Finger, Chen and Yeh’s (2008) findings suggest that
learning the course instruments should not be a complex or time-consuming process, or distract students from lesson activities. Instead, it should attract students’ attention and motivate their participation and interaction. Ally (2004) indicates four elements that need to be considered in order to promote online learners’ academic success: capturing attention; maintaining interest with relevant lessons; clearly stating lesson outcomes; and finally, providing effective feedback.

Another approach for enhancing distance learners’ experience is to place more emphasis on the level of interaction in the online learning environment. This is especially true with online technologies that have the potential to promote collaborative learning by creating social negotiation and reflection platforms (Mason, 2008; Huang, 2002). Online learners need to be exposed to learning opportunities in which they are able to interact and collaborate via various types of media such as email, electronic discussion forums and audio-video conferencing. The physical appearance of students and their gestures found in the conventional classroom can be replaced with ongoing comments, interaction and reflections (Harasim, 1996). The value of online education depends largely on the process of students' participation and contribution. Typically, there is a need to build a sense of community among all parties involved through one-way and two-way interaction, synchronous and asynchronous communication, as well as transient and permanent dialogue (Bates, 2008). This claim is supported by Holmberg (1986) who states, “[The] communication element is rightly considered a cornerstone of distance education” (p. 54). To this extent, individual reflections should be frequently encouraged as well as the learner being required to write in a way that is understandable to others (Campbell & Gibson, 2008; Anderson 2006).

In contrast to traditional classroom instruction, online education allows for more ongoing communication between student-student, teacher-student and student-teacher at any time and from any location (Glahn & Gen, 2002; Cooper, 2002). Collaborative work and interaction in online courses should be treated as essential to course outcomes and assessment rather than as optional activities (Anderson & Garrison, 1998; Cohen, 2003). In this sense, Moore and Kearsley (2005) propose a framework of interaction in online learning that consists of three levels: learner-content interaction; learner-instructor interaction; and learner-learner interaction. Similarly, Garrison (1993) supports a sustained two-way communication, stating that “without sustained interaction there is no way to facilitate critical learning” (p. 14).
However, Pennells (2003) warns of two downsides of an online learning environment: the instructor’s inexperience in moderating a learning process and vagaries in participation within group online interaction. Similarly, Garrison (2003) suggests that in online courses the teachers are responsible for demonstrating a balance of control among students in order to ensure that they are all offered equal learning opportunities. As such, students are able to share, exchange and seek information even though they are physically separated. Palloff and Pratt’s (2007) perspective is that, "In distance education attention needs to be paid to the developing sense of community within the group of participants in order for the learning process to be successful" (p. 29).

With this in mind, the online learning environment needs to be designed in a way that promotes students' autonomy and simultaneously involves them in group discussion with their fellows and teachers. As illustrated by Garrison (1993), “The ideal is a collaborative respectful interdependence where the student takes responsibility for personal meaning as well as creating mutual understanding in a learning community” (p. 17). Moore’s (1994) view is that distance education programmes must promote student autonomy as well as interdependent learning. The former can be achieved by promoting their ability to be self-directed and increasing the available options to learners, and the latter by applying more group activities and developing networks to sharing, consulting or discussing with others. Literature in this respect indicates that in a learner-centered setting, students’ achievements depend heavily on their contributions and engagement within the online course. Thus, there is a need for promoting active and independent learning by moving the bulk of responsibility to the student (Ally, 2004; Schrum & Benson, 2002). Online courses should promote students’ learning by organizing a space in which they are able to read, write, reflect and explore course activities (Harasim, 1996; Glahn & Gen, 2002). Students need to be challenged to critique problems, seek solutions and build on their earlier knowledge (Ally, 2004; Burge & Polec, 2008). They need to play more active roles in their learning. As Virginia, Nancy & William (2011) comment, online learners “who are open-minded and willing to share information regarding their lives, work, and educational experience are more able to connect with other students as well as apply new knowledge to their past experiences” (p. 4).
In the examined literature, much has been documented in regard to online course delivery and activities. Delivering online courses through a variety of media instead of a single medium is also observed to be a more effective and beneficial strategy that enhances learners’ performance (Moore & Kearsley, 2005; Cavanaugh, 2002; Cohen, 2003; Ally, 2004). An online education programme should offer the teacher a variety of options to actively involve students in the learning process and promote connection, group synergies, and sufficient access to learning resources. Palloff and Pratt (2003) believe that online course activities need to be presented via different approaches along with various forms of assignments in order to accommodate the learning styles of all learners. Access to a variety of learning materials as well as diverse perspectives enables learners to gain a new set of understandings, experiences and essential skills (Haughey et al. 2008; Mason, 2008). Specifically, Haughey et al., (2008) state that metacognitive skills, such as critique, analysis and synthesis, need to be promoted to encourage students to develop and convey their personal points of view. Online courses should involve relevant activities and challenges that make students more skilled, self-confident and globally competitive individuals. Granger and Benke (1998) indicate that students learn best and become more confident when knowledge is built on relevant experiences in which they have been successful. At the same time, course activities and materials must be as topical as possible and error-free (Kearsley, 2002; Feenberg, 1999; Murphy, 2008). Thus, having the latest technology does not necessarily ensure the quality of online education (Spronk, 2008; Granger & Benke, 1998; Hongmei, 2002). Rather, scholars signal the need for maintaining a quality assurance in any online education programme as explored in the following section.

2.3.3 Quality assurance of online education

Numerous studies have been carried out to identify the process of quality assurance in online education. Feenberg (1999) and Kearsley (2002) stress that institutions that intend to provide online courses should develop a technology-oriented culture as well as amenable administrators and leaders who are able to get the best possible benefit from the available resources and applications. The success of online education requires accurate quality assurance and special techniques in order to serve a diverse population of online learners. As noted by Harasim (2000) that:
To meet the criterion of quality programming, a virtual university must employ top quality faculty and instructional staff, produce high-level academic curriculum and resources, use group discussion and project activities for most if not all the coursework, produce demonstrable results, and provide integrated coherent and cohesive degree/diploma programs, not just assorted courses. (p. 59)

Designing a clear strategy and policy is one of the main components towards a successful implementation of online education. Onay (2002) states, “For the university the transition to an internet-based learning environment requires restatement of institutional missions and priorities” (p. 234). Simonson and Bauck (2003) add that institutional vision and mission statements should reflect their commitment of offering online education. Institutions that are planning to design an online educational programme should develop well-structured course materials in which course information is adequately detailed (Cooper, 2002; Levy, 2003). Information should cover admission and enrolment enquiries, tuition fees, library services, access to course resources, and academic advising and training (Murgatroyd, 2008). There is a need for a long-term plan that evaluates teachers’ participation, course content and delivery, as well as the support offered to students. More specifically, Wolcott (1997) suggests three important institutional implications. First, an online programme should be consistent with the institution’s goals and aligned with the institution’s mission. Second, universities should critically review their current practices and policies of rewarding faculty members. Finally, faculty involvement in distance education programmes should go hand-in-hand with regular development and support. In addition, Anderson and Simpson’s (2007) perspective is that online education is increasingly raising ethical issues that are not encountered in face-to-face education, including “equity and diversity, surveillance and consent, identity and confidentiality” (p. 129). These issues have been a major concern to online instructors over the past ten years. Nevertheless, one should note that the expansion of the implementation of online courses could make providers more cautious and sensitive towards these issues and their influence on distance learners (Kearsley, 2002).

Conducting regular research and evaluation is observed to be influential in the quality assurance of online education (Glahn & Gen, 2002; Cohen, 2003; Moore & Kearsley, 2005). Institutions need to develop internal assessment and quality assurance in order to ensure that they are accountable to and responsible for students’ academic success (Murphy, 2008; Thorpe, 2008). Typically, online education providers need to be aware of all instructional
practices and challenges involved in the online environment so they can support learning in the best possible way. Thompson (1998) states that

The ability of educational institutions to fulfill their responsibilities of appropriately serving a diverse population of distance learners will depend on both the knowledge gained from further student-centered research and on the flexible programming and learner support system made possible by current and emerging distance education technologies. (p. 20)

Murgatroyd (2008) also contributes to the same point indicating that “Critical to the process of quality assurance are the publication standards and their interpretation, the transparency of the process of review and clear indications of whether or not an organization or program meets these standards” (p. 568). There is a need for frequent evaluation that assesses the quality of online education programme and services, either internally or externally, in order to explore programme performance and outcomes (Cavanaugh, 2002).

Some researchers document the advantages of having a partnership with other institutions that have more experience in online education. Bates (2001) observes that partnering with a well-known institution in a developed country “is a quick and less painful way for institutions with less experience in distance education in developing countries to get into it more quickly, and hence develop their own expertise … [it] can also improve an institution's competitiveness” (p. 127). Partnerships between online education programmes could facilitate importing expertise and resources and limit the duplication of cost and effort (Levy, 2003). However, this needs to be done with a very careful plan so the transmitted educational program does not differ from the educational culture of the local community (Gunawardena, Wilson & Nolla, 2003).

In addition, ensuring the quality of online education requires adequate participation of faculty members. Success in online education is strongly linked to the extent to which teachers are willing and capable of creating attractive learning environments in which students can work together towards the course objectives (Hongmei, 2002; Cohen, 2003). To begin with, teachers’ attitudes play a vital role in facilitating and promoting the quality of online courses (Glahn & Gen, 2002; Saunders, 2002). Concurring, Sun et al. (2008) suggest that teachers’ attitudes relating to the use of technology in the lesson activities significantly
affect students’ satisfaction. Dooley and Magill (2002) highlight that if faculty members are going to participate in online education they must have the competence and believe that this educational option is important and valuable. Therefore, teaching staff should be carefully selected, based on their professional expertise and commitment to teach online courses.

It is acknowledged that the role of teachers in online education is complex and potentially problematic (Hongmei, 2002; Moore & Kearsley, 2005; Mason, 2008). Teachers who are involved in teaching online courses must be well-trained to acquire the skills needed to bridge the physical gap. This could include supporting students and ensuring that course resources are available and appropriate (Husmann & Miller, 2001; Glahn & Gen, 2002). They need to be willing to deal with the high pressure in staying connected and close to students in the online environment (Feenberg, 1999; Anderson, 2006; Evans, 1994). As noted by many (e.g., Sun et al., 2008; Kearsley, 2002) a timely response to learners’ enquiries and prompt feedback significantly impacts on their success and retention. Along with that, instructors should address distance learners’ concerns and anxieties. They need to encourage their students to pursue their interests, promote their autonomy, and maintain a balance of power and authority in the learning process (Moore, 1993; Evans, 1994).

Furthermore, Dillon and Greene (2003) illustrate that, “effective learner-instructor interaction should be designed not only to help students understand the content, but also to help them to understand themselves” (p. 242). Teachers’ roles should be embodied in creating a space in which learners can control their own learning and reflect on their experiences. With this in mind, teachers should construct activities in a way that helps students to evaluate, identify and express themselves (Sanchez & Gunawardena, 1998; Moore & Kearsley, 2005). Evaluation must become an ongoing, continual and integral activity of the course, so the teacher becomes familiar with each student’s work (Schrum & Benson, 2002; Cohen, 2003).

In order to promote and enhance teachers’ participation in online education, the literature suggests that they must have more than a general familiarity with the technology being used (e.g., Sammons, 2003 and Cohen, 2003). They should be offered continuous support, pedagogical training and incentives such as awards and release time (Wolcott, 2003). Support and training need to be constant in order to expand their qualifications and understanding of the online education environment (Cavanaugh, 2002; Dooley & Magill,
Involving faculty members in designing and developing online courses is a fundamental step that results in enhancing education quality and promoting their participation in online education (Hongmei, 2002).

Above all, accessibility and flexibility, effectiveness and quality assurance have become more visible in the context of online education programmes around the world. Considering and maintaining these aspects could be beneficial for countries that have just started offering online education. In the Arabic region, for example, online education programmes have just become an accepted educational option, particularly in the Kingdom of Saudi Arabia (KSA). As noted by many researchers, universities and colleges within the Arabic region are struggling to enhance the quality of content delivery via the Internet (Al-Fadhli, 2009; Laaser, 2006; UNESCO, 2002; Bendania, 2011). What follows is a brief description of online education in the Arab region with more attention given to the KSA, from which this study's participants were drawn.

2.4 The context of online education in the Arab region, and particularly in the KSA

Online education in the Arab world has become a key feature of educational practices, especially in higher education institutions. There has been a remarkable commitment as well as huge investment to facilitate education that is delivered via online technologies. However, most of the Arab countries are at the earlier stages of providing online education, and thus movement has been slow and not promising across these countries (Mohamed, 2005; Alsunbul, 2002; Sultan, Bunt-Kokhuis, Davidson, Sentini & Weir, 2012). Unsurprisingly, progress in implementing online education programmes in the Arab countries varies and depends on the country’s commitment and attitude, basic infrastructure, and Internet penetration (Matar et al., 2011). Consequently, some of the Arabic countries have enabled foreign investment in education (e.g., Syria and Bahrain) in order to accelerate this progress, as well as benefit from the wider experience of the developed countries. However, others have refused such assistance, among them the KSA.

Alsunbul (2002), with more than 20 years of experience and involvement in the field of distance education in the region, argues that the Arab League Educational, Cultural, and Scientific Organization (ALESCO) has played a key role in promoting distance education in
the region since the 1970s. He states that, “ALESCO threw a stone in the stagnant water of
distance education and thus managed to reactivate the movement in the Arab world” (p. 76).
Other critical factors contributing to the expansion of distance education in the region
include the country’s prosperity, national income and population size.

Online education in the KSA initially followed the common trend in the region with slow
movement, but this trend did not last too long. In fact, some of the Arab Gulf countries
including the KSA and Kuwait have applied a well-developed strategy to offer online
education. They have invested generously in e-learning and ICT infrastructure (Sultan et al.,
2012). For example, it was expected that by the end of 2009 the budget for online education
would reach $240 million in the Arab Gulf region, nearly 80% of this budget to be spent in
the KSA as well as the United Arab of Emirates (Guessoum, 2010). More specifically, the
inauguration of distance education via online courses in the KSA did not occur until
February 2003, when the Arab Open University (AOU) opened its first branch. Although it
has not been widely welcomed and accepted, it has set the tone and paved the way for other
institutions to adopt online education. This foremost ambition was followed by the second
government initiative of establishing online education in higher institutions, in 2004 by King
Abdul-Aziz University, in Jeddah. At present, there are about 15 out of 25 government
universities offering online educational programmes across the country. This is perhaps a
sign that the Ministry of Higher Education in the KSA is conducting a proactive approach to
keep pace with the fast economic growth in the region. That is, the Ministry is very keen to
benefit from advanced technologies and apply them in its educational system.

We can take this argument one step further arguing that this quantitative increase in
universities offering online education programmes in the country might affect their quality.
This could be true in a country that has a short history of online education. As Cohen (2003)
and Levy (2003) point out, a well-structured implementation of online education
programmes will ultimately determine whether or not those enrolled distance learners
receive the best education possible. In other words, it is not an end in itself to launch online
education but rather to use online education to assist the entire educational system to achieve
national goals. In that sense, the Ministry of Higher Education in the KSA addressed the
issue of expanding online education by formulating a set of regulations that must be
followed by institutions intending to offer such a pattern of education. These standards will
ensure that academic opportunities offered via online courses address society norms, core values and interests. This progress has been supported and promoted, since 2005, by establishing a National Communications and Information Technology Plan (NCITP). This multi-phase plan aims to widen the use and adoption of advanced technologies in education in the next 20 years (Ministry of Communications and Information Technology, 2005). As a result of this plan, there has been remarkable investment in e-learning and distance learning to increase student enrolments and meet the growing educational demands of society.

Furthermore, in 2006, the Ministry of Higher Education signed a contract with the Malaysian company METEOR to establish the National Centre for E-Learning and Distance Education (NCeDL) at a cost in excess of 47 million Saudi riyals (equivalent of US$12 million). According to the Ministry of Education’s strategy, the NCeDL was developed to be the nucleus of e-learning and distance education for the country’s higher education institutions. It aims to coordinate the efforts of universities seeking to embrace this type of learning, and to facilitate delivery of e-learning to Saudi students. It strives to set quality standards and foundations, disseminate educational software, and arrange workshops and conferences that will help to develop e-learning and distance education. In doing so, this centre is expected to become a cornerstone of all Saudi universities implementing e-learning and distance learning programmes. It is worth noting that eight universities have already signed an agreement with the centre in order to support their online education programmes. They will be provided with various multimedia resources to assist them to integrate online education that fits their own vision and mission (Mohe, 2010b). This would also contribute to saving the universities time, effort and money. In a similar vein, the Ministry of Higher Education has established an electronic university that provides an online learning environment based on a wide range of online technologies. It will start officially in 2013 and aims to be an effective substitute for the correspondence learning approach “Intesab” by changing the passive style of learning to a more interactive one (“The electronic university”, 2012).

Among these efforts and initiatives to disseminate online education in the KSA, one must mention the online education programme at the KFU. This programme has been successful and become a model followed locally and regionally (“The deanship of e-learning and distance education”, 2012). This ambitious programme aims to offer an educational
environment that is supported by technology and applies the highest international standards of excellence and quality (King Faisal University [KFU], 2012). More specifically, the deanship of e-learning and distance education at the KFU has distinctly articulated the vision, mission and objectives of this online programme on its website. This programme seeks to address various issues in the context of distance education in the KSA by providing accessible and flexible learning opportunities. It intends to help students learn in the best environment possible by ensuring the quality and reliability of this programme. In essence, the KFU initiative of embracing online education is in line with the increasing adoption of this form of education in the KSA and the Arabic region generally.

Looking closely at the published literature related to distance education in the Arab region, it can be assuredly stated that online education has become a focal point of interest to the higher educational institutions. Further, the accelerated progress of adopting online education can be justified and attributed to various factors. These include widening access to higher education institutions; meeting the enormous growth in population; offering flexible and lifelong learning opportunities; and meeting national social and economic demands (Alsunbul, 2002; Abdelraheem, 2006; Mohamed, 2005; Ibrahim, Rwegasira, Kami, Taher & Ahmed, 2007; Gani, 2010). The following section introduces the institutional objectives of the KFU online education programme. They are linked to the wider educational, social and economical context in order to explain how they have emerged. These objectives are divided for convenience into three categories according to their similarities and intersections.

2.4.1 Category One: The need for accessible and flexible education

The number of online education programmes is growing in the KSA, and many higher education institutions are convinced of the capability of this form of education to accommodate more students. Those institutions seek flexible access to learning and to liberate them from conventional constraints such as time and place. This is especially true with the rapid increase in population in the KSA. According to the latest statistics, it is clear that between 2004 and 2010 there was a high annual population growth of 3.2% and as such the number of students graduating from high school will continue to increase (Central Department of Statistics and Information, 2012). There are currently around 900,000 active students enrolled in government universities with an annual new enrolment rate of almost
276,000 students (Mohe, 2010a). This indicates that the enrolment rates could exceed the universities’ capacity, which might place a tremendous pressure on educational system in the future. It is noted earlier by AlKhazim (2003) and Alshehri (2005) the capacity of higher educational institutions in the KSA is very limited and hence it is not guaranteed that those school graduates will be accepted into formal higher education. It should be noted that a good percentage of students are sent to study in different parts of the world. The proportion of students studying overseas compared to the total population is 3% (Mohe, 2009). The demand for higher education in the KSA is extremely high. Students, in previous years, showed their interest in pursuing their education either in public or private institutions, and formal or non-formal education. Online education is expected to play a key role in facilitating students’ enrolment in higher education institutions in the KSA (Ziyadah, 2012; Mirza & Al-Abdulkareem, 2011).

The need to offer full access to education for those who live in distant areas constitutes another factor that leads to introducing online education in the KSA. Although, the Ministry of Higher Education over the past decade has increased the number of public universities from seven to 25, they mainly serve those who live in or nearby the major cities. In other words, not all districts and communities have their own university and thus many students need to travel to where they study (Alebaikan & Troudi, 2010). One should note that establishing new universities in the Arab region is complicated and costly, in particular in rural areas where the basic infrastructure for supporting and constructing universities is inadequate. It needs commitment, funds, and most importantly, time to construct new buildings. In this respect, online education can be used as a viable option in reaching out to all Saudi students who live in rural areas (Abderaheem, 2006; Matar et al., 2011), especially in the KSA, such a large country. Hamdan’s (2011) perspective is that the demand to increase access to higher education and make it available to those students who are employed or live in rural areas has accelerated the process of implementing online education. The need for accessible online education is an essential solution for bridging the digital divide in the Arabic region (Matar et al., 2011).

Moreover, taking into our consideration that females are not allowed to drive, or travel without a guardian (e.g., father or brother), online courses could be a reliable solution to overcome the religious and cultural constraints of otherwise segregating male and female
students. Al-Shehri’s (2010) findings suggest that online education provides female students with more flexible educational opportunities. Similarly, Alebaikan (2010) indicates that online courses can play a key role in offering Saudi women educational opportunities that do not conflict with their basic responsibilities and roles in society.

It appears that the Kingdom needs to ensure educational opportunities are not limited to the fortunate by expanding access to education with adequate resources for all citizens. To that end, the KFU has formulated five objectives in order to ensure accessible and flexible online education is being offered:

1- Widening the access to higher education and responding to the growing social demand for this type of education.
2- Creating an electronic learning environment that motivates students off campus and from all over the KSA to study at the University.
3- Promoting flexible learning, and liberating it from conventional constraints, including time and place.
4- Reducing the cost of education and making it accessible to every member of the community according to his/her abilities and interests.
5- Designing a variety of educational resources and using multiple media in order to capture students’ interest and increase their engagement and interaction.

2.4.2 Category Two: Designing an effective online learning environment

One of the main driving forces behind the adoption of online education in the KSA is the need to benefit from the capacity of new technologies in educational practices. This is especially true with the high level of infrastructure and Internet penetration within the country. Saudi citizens enjoy a relatively high standard of living, as indicated by the Communication and Information Technology Commission’s (2008) report. It shows that individuals between 15 and 60 years owning a personal computer comprise 77% of the total population. At the same time, there is an increase in the number of Saudi citizens using the Internet for different purposes (e.g., browsing; communication). There are around 13,000,000 Internet users in the KSA as shown on the latest statistics (Internet World Stats, 2012). The availability and accessibility of the Internet and technology can offer a wide range of learning opportunities to students (Bates 2008; Concannon, Flynn & Campbell, 2005; Kozma, 2005). Thus, the KSA intends to embrace technology to increase the effectiveness of distance education by enhancing the quality of instruction and promoting
student engagement and interaction. Alhawiti’s (2011) findings suggest that online education has the ability to attract a new generation of Saudi students. Their familiarity with online technology might make these courses a preferable choice of education.

Another aspect that may contribute to online education adoption in the KSA is the need to provide students with new qualifications, skills and experiences that are responsive to the new knowledge economy. An effective online education programme in the KSA could be a cost-effective approach to provide students with degrees and qualifications in several vital majors, such as science, engineering, health, information technology, and nanotechnology (Abdullah, 2010). The use of educational technologies can support students in meeting the changing demands of the market place when linked to real-life settings. Al-Zoubi and Sam (2011), Guessoum (2009), and Alyahya (2011) observe that an effective online learning environment can enhance and facilitate job performance and satisfaction of employees, and promote economic growth in the Arabic region. By applying online courses, the Saudi government aims to equip its citizens with critical qualifications and skills in order to decrease the reliance on foreign workers (Sultan et al., 2012). The results from Zakari and Alkhezzi’s (2010) study demonstrates that online education has the ability to develop human resources, increase social communication among the learners and equip them with essential information technology skills.

The aim of expanding learning opportunities by exploiting relevant technology represents another influential factor in increasing online education. Online education can attract and engage students in the learning environment by providing valuable learning resources. It could also provide them with an opportunity to interact and reflect in a way that is not always found in their face-to-face education. As noted by Ibrahim et al. (2007), students’ intention to complete their distance course depends largely on the quality of education and the variety of technology. The KSA seeks to engage students in effective learning environments in which they are able to generate their own knowledge and express themselves. Al-Saggaf (2004) documents the significance of using online communities in the KSA, indicating that individuals are more likely to gain self-confidence and freedom to explicitly express their ideas and perspectives. More importantly, the online community provides them with a chance to listen to a variety of opinions and thus enhance their critical thinking. Following the same path, Hamdan’s (2011) study demonstrates that online courses
allow students to learn different writing styles and new communication skills. In brief, today’s students need to develop their skills and competencies with the revolution of technology in order to live, work and cope with the rapid changes in society. In this respect, the KFU has identified five objectives, as follows:

1- Increasing the level of interaction between academics and students and between students.
2- Creating new qualifications and degrees in sophisticated areas in order to meet the needs of the new knowledge economy.
3- Creating and disseminating knowledge through a robust educational technology infrastructure and raising the cultural, social and scientific level of all citizens.
4- Providing an environment for learners, where all support and resources needed are available.
5- Raising awareness among the community about the concept of e-learning and the need to use it to improve the level of education.

2.4.3 Category Three: Maintaining a quality assurance of the online education programme

The policy of distance education in Arab countries is ambiguous with regard to quality assurance (Gani, 2009). Although the number of online courses is growing, there are no precise national strategies to develop online education, coordinate its activities or evaluate its quality by a rigorous process of evaluation (Abouchedid & Eid, 2004; Alsunbul, 2002; Mohamed, 2005). As result of this attitude there has been low public trust and acceptance of online degrees. For example, numerous studies have been carried out in the KSA showing that teachers are not convinced or motivated to be involved in online teaching due to doubt about its effectiveness and credibility (Al-Jarf, 2007; Alhawiti, 2011).

Accordingly, the KSA in integrating online education into its system intends to develop a clear policy for this form of education compared with other Arab countries. In this view, the KSA has undertaken two main steps in order to promote the process of quality assurance for online education: the announcement of the Regulations of Distance Education in the Higher Education Institutions in the KSA, and the establishment of the NCeDL, mentioned earlier. The former provides the rules and conditions to guide those institutions intending to institute distance education, while the latter is to develop online education, and keep up with the
latest innovations in educational technologies. These two steps have facilitated and increased the recognition and respect of online education within society.

With this in mind, the KFU online education programme has proposed the following:

1- Increasing the quantity and quality of educational resources available at the University.
2- Supporting the faculty with the right tools for learning, management, assessment, and research.
3- Helping staff to share work schemes, lesson plans and other resources, and to have all electronic resources accessible on demand.
4- Maintaining the use of appropriate international standards to promote the quality assurance of e-learning.
5- Conducting regular research to develop the e-learning system within the University.

Above all, designing an online education programme is a very sensitive procedure that assumes fundamental changes in missions, norms and objectives and consequently a new culture of knowing and learning (Hanna, 2003). It is introducing new technology with new roles that differ from traditional education. The concept of distance education in the Arab region is alien and building a distinctive culture for distance learning has a long way to go (Alsunbul, 2002; Abdelraheem, 2006; Sultan et al., 2012). Despite the serious endeavours to benefit from online education in the KSA, and in the Arab region generally, there are many obstacles and constraints to be overcome. In other words, the implementation of online education has not been an easy task or a straightforward process. However, it is beyond the scope of this study to highlight all the major issues facing online education in the region. Rather, in the following section the researcher will discuss some of the possible obstacles facing online education in the KSA.

2.5 Challenges and constraints relating to online education in the KSA

To begin with, the poor perception and lack of awareness within society of the effectiveness of the Internet in education could be associated with the slow movement to online education programmes within the Arab region (Mirza & Al-Abdulkareem, 2011). In the case of the KSA, access to the Internet, integral to online education, was only made available in the late 1990s (Wheeler, 2004). Since then, the number of Internet users in the country has dramatically increased, reaching 13,000,000 in 2011 (Internet World Stats, 2011). However,
not all Saudi citizens appreciate, benefit from or use the Internet to enhance their education. Drawing upon the report published in 2008 by the Communications and Information Technology Commission (CITC), only half of Internet users knew about the concept of e-learning, and merely 4% of Internet usage was primarily attributed to educational purposes. Clearly, this indicates that people were not totally convinced about using it to help their education, in spite of the widespread use of the Internet within the Kingdom. This is quickly changing, however, with the growth of access to the Internet as an influential component of e-learning. It is noted that there is an increase in accessing the Internet from higher education students (CITC, 2009). Nonetheless, Saudi students may perceive that learning in an online environment might take them out of their comfort zone by demanding new skills and competencies (Alenezi, Karim, & Veloo, 2010; Bendania, 2011).

One of the most crucial factors hindering the development of online education in the KSA is the new responsibilities that learners need to cope with. Typically, students tend to learn through direct lecturing and memorizing the knowledge offered to them by the teachers. However, in online learning students might be required to play more active role in their learning process. To make things worse, education in the region has not adequately provided learners with the skills needed to succeed in an online learning environment. Very broadly, learners in the Middle Eastern countries are “spoon-fed” and thus are not enjoying a self-disciplined environment. They are not well prepared for argumentative activities and expression styles. They prefer to sit in a classroom while the teacher teaches and responds to their enquiries, and thus do not accept an instructional approach that may place responsibilities on themselves (Alsunbul, 2002; Gunawardena & LaPointe, 2008; Sultan et al., 2012). They generally do not acquire proactive, lifelong or autonomous attitudes towards learning that are normally required in online education (Guessoum, 2010). As such, Hamdan’s (2010) study indicates that cultural differences of distance learners in the KSA need to be considered in order to help them learn more independently. In that sense, learners at a distance might need to address two critical aspects: first, they should cope with new roles and change their traditional passive approach to learning in which they rely on their teachers (Younes, 2008); and second, when using online learning environments they need to be capable of using the technology and cautious about ethical issues including privacy, respecting others’ work and ideas, and avoiding plagiarism (Al-Fadhli, 2009; Hamdan,
Further, Al-Harthi (2005) concludes that students from the Arab Gulf in the United States do not enjoy distance education opportunities due to a lack of experience and expertise. Students with inadequate skills in online learning are easily embarrassed and distracted by their new roles in a self-directed environment.

In addition, the attitudes and traditional culture of higher education institutions in the KSA constitute a fundamental barrier to online education. This includes unfamiliarity in using technology and lack of leaders who could bring change and support needed for online education. Al-Jarf’s (2007) findings show that 50% of the Saudi universities do not offer online courses. This is for many reasons, including the lack of adequate online teaching skills, administrative support, motivation, funds and infrastructure.

Along with these factors, the skepticism about online education quality and applicability in the Arabic world and the lack of accreditation standards are major challenges hindering the development of online education (Sultan et al., 2012; Abouchedid & Eid, 2004; Alsunbul, 2002; Guessoum, 2010). Further, the KSA is very sensitive and reluctant in enabling local or foreign institutions to offer any form of education within the country. All teaching materials and objectives that take place in the Saudi educational contexts must be agreed by the Ministry of Education (Alkhazim, 2003). Because of this centralization, any attempt for adopting online education has to go through a hierarchical procedure, which might delay the embracing of online courses. Similarly, the Saudi government does not recognize degrees obtained at a distance from private or overseas institutions (Alsaleh, 2009; Hamdan, 2010). More specifically, there is no representative foreign institution in Saudi tertiary education, except the Arab Open University (AOU). Nevertheless, this higher education institution is a well-known private single mode university with many successful branches within the Arab region. It mainly cooperates with United Kingdom Open University (OU) for materials, consultations and accreditation in order to achieve broad regional educational goals (Gani, 2009). The Arab Open University (AOU) was opened in 2000 and formal teaching has taken place in many Arabic states (e.g., Bahrain and Egypt) since October 2002, and the KSA and Oman were the latest countries to institute branches, in 2003 and 2008 respectively (Zakari & Alkhezzi, 2010). However, it has been noted by many researchers in the region that allowing international institutions could improve the education system, by providing the required expertise in delivering and assessing online courses (Alsunbul, 2002; Alkhazim,
2003), unfortunately no progress has been made in the KSA so far. The Saudi government remains cautious and reluctant about adopting or enabling private institutions to advise on online education programmes unless it is given full authority and control over the programme’s providers. Bates (2009) observes that there is still concern about the quality and effectiveness of online education, which has caused difficulties in accrediting and recognizing such a form of education in the KSA. As a result of this attitude, the KSA has been slower than most states in the Arabic region to accept online education as a trustworthy form of higher education (Alkhazim, 2003; Alamri, 2011).

The negative view and low public esteem held for distance education constitute another barrier to the success of this form of education in the Arab world (Mirza & Al-Abdulkareem, 2011). The reluctance to accept online education might be caused by the negative views and attitudes held by educational stakeholders and governments. For example, the AOU, mentioned earlier, was the first attempt at embracing technology in distance education. However, this institution did not gain formal recognition by the Ministry of Higher Education except for some of its branches. Students who graduate from such a university have difficulty finding a job and thus the common perception is that distance education is not equal to traditional education in terms of accreditation and working opportunities. This, of course, contributes to a negative impression as well as doubts about this style of education. Furthermore, Dirani and Yoon (2009) stress that there is a concern and high level of skepticism from society towards online courses and the possibility of not getting an appropriate job. AlTameemy (2010) also argues that distance education is undervalued and in many cases is not accredited, particularly in Middle Eastern countries. Online students across all the Arabic nations need clear vision and guidelines prior to their study.

Furthermore, the policy on distance education in Arab countries is vague. There is no precise national strategy to develop distance education, coordinate its activities or evaluate its quality by designing a rigorous process of evaluation (Abouchedid & Eid, 2004; Alsunbul, 2002; Mohamed, 2005). In addition, Gani (2009) argues that the Arab region, in general, still lacks a well-developed strategy that maintains quality assurance of online education’s processes and activities. He further indicates that, “individual institutions of distance education often achieve quality standards for their academic activities such as course production, evaluation and delivery by a trial and error procedure” (p. 45). Alebaikan and
Troudi (2010) point out that finding the right design is an issue when adopting and promoting an online learning environment, especially with the absence of a well-developed framework and guidelines. Therefore, careful preparation is critical to achieve quality assurance and keep those individuals involved in online education programmes motivated and satisfied. Al-Harthi’s (2005) argument adequately addresses the situation:

If Arab Gulf States were to benefit from distance education, they should deal with the resistance at two levels: individual level and governmental level. At the individual level, it is important to promote distance education to Arab Gulf students by providing a clearer and a more detailed picture of distance education. At the governmental level, if Arab Gulf States do not want to find themselves overwhelmed with global distance Western providers, a more proactive approach is required to articulate policies addressing critical issues. (p. 11)

Seemingly, the shortage of experienced and well-trained faculty members constitutes another obstacle. It is noted by many (e.g., Alsunbul 2002; Al-Senaidi, Lin & Poirot 2009) that the Arabic region lacks well-trained and experienced faculty members. That is, institutional support, technical training, and release time is needed for teachers involved in teaching online to expand and upgrade their knowledge and skills in educational technologies. More recently, Matar et al. (2011) support this claim acknowledging that instructors in the region are assumed to create online content and electronic resources and deal with copyright issues, however, they are not provided with adequate support and training.

In the same way, Saudi universities might face a challenge or resistance especially from those teachers who have not experienced online teaching. Bates (2010), in a visit to three higher education institutions in the KSA, concluded that the Kingdom is still struggling with the implementation of online education programmes due to its short history. Alhawiti’s (2011) recent work contributes to this point illustrating that legal issues including software piracy and copyright, along with lack of training programmes and administrative support, are identified by Saudi faculty as obstacles to the diffusion of an online education. Similarly, ICT competency and Internet experience are found to be critical factors influencing teachers’ intention to use e-learning in the KSA (Bendania, 2011; Ziyadah, 2012).
It is noted, however, that teachers’ attitudes in the Arab world might not support the online learning environment and thus they hinder the growth of online education. As noted in Dirani and Yoon’s (2009) study, educators who resist a change could be a source of discouragement for those who favor online education. AlTameemy’s (2010) research clearly indicates that faculty members in the Middle Eastern universities possess a more negative attitude towards the use of distance education compared with faculty members in the USA.

In contrast, some researchers demonstrate that teachers in the KSA hold a positive attitude towards online education, yet they are still reluctant to embrace it. Bendania (2011) concludes that faculty members in the King Fahad University of Petroleum and Minerals in the KSA hold positive attitudes about using an online learning environment, yet they prefer face-to-face rather than online instruction. Similarly, Al-Asmari’s (2005) research shows that among four main colleges of technology in the KSA, teachers display a positive perception of the Internet as an effective learning tool, but their use of the Internet for teaching purposes is still rare. Alshehri (2005) investigated faculty members’ attitudes towards implementation of online courses at the Institute of Public Administration in the KSA. From 232 respondents, findings indicate that faculty members acquired a positive attitude toward online courses but lacked adequate knowledge and skills in order to embrace online courses. Hence, it can be concluded that educators in the Arabic region in general need to be familiar with the concept of e-learning and aware of the new pedagogical and technical skills needed in order to promote and enhance their participation in online courses (Dirani & Yoon, 2009; Mirza & Al-Abdulkareem, 2011).

Since the integration of online education at the Saudi higher education institutions has grown steadily over the last few years, there is likely to be a constant demand to expand knowledge in this area. Scholars in this respect suggest different approaches and procedures in reviewing and assessing an institution’s performance. These approaches can be classified as follows: an understanding of the stated goals and objectives and the process of development; review of an institution’s resources and ability to change; a focus on an institution’s performance and its priorities; and an evaluation of the institution’s reaction towards those aspects that are not being properly achieved (Murgatroyd, 2008). The researcher felt that there is a need for exploring the performance and ability of these institutions to deal with the changes needed in their structure, especially about aspects that
hinder them from achieving the institutional goals. That is, this research aims to examine the extent to which the institutional goals of online education programme at the KFU are being attained from the perspectives of students and faculty members.

2.6 Conclusion

The present study contributes to filling the knowledge gap in research into online education in the KSA. As mentioned earlier, there are many universities within the country that embrace online education, but for the purpose of this study only one was selected. This study aims to examine the extent to which the objectives of this programme have been attained from the perspectives of current students and teaching staff. In response, the researcher used a mixed-methods approach to collect the data needed from both students and teaching staff involved. To this end, the following chapter will provide an in-depth description of the study methodology and procedures used to address the study objectives.
Chapter Three: Research Methodology

3.0 Introduction

This chapter provides information on the methods that were applied to answer the research question and includes the research design of the study. It gives a description of the study participants, two data collecting instruments used and their validity and reliability, ethical considerations, and the procedure that was used to collect and analyze the data.

3.1 Research question

The aim of this project was to explore the online education programme at the King Faisal University (KFU) by answering the following question:

➢ To what extent are the planned institutional goals of online education being achieved from the perspectives of students and faculty members?

3.2 Research design

There is widespread use of online education programmes within the Kingdom of Saudi Arabia (KSA) universities, and for the purpose of this research a case study approach was applied. The researcher chose a case study design to capture students’ and faculty members’ specific experiences and perceptions of online education programme at the KFU. Thomas (2011) offers the following definition of a case study: "Case studies are analyses of persons, events, decisions, periods, projects, policies, institutions, or other systems that are studied holistically by one or more methods" (p. 513). That is, an intensive concentration in a single case study results in gaining rich information to be compared with published literature or findings (Springer, 2010).

This case study was based on qualitative and quantitative research techniques. A mixed-methods approach in the field of technology-based education can provide a reliable explanation of the issues under discussion that would not likely have been achieved via a
single method (Russek & Weinberg, 1993). In addition, Zawacki-Richter, Bäcker and Vogt (2009) demonstrate that only 13% of research in distance education conducted between 2000 and 2008 were based on a mixed-methods approach. They suggest that distance education is a complex field that can be explored through the advantage of combining quantitative and qualitative approaches.

The use of a mixed-methods approach in this study is to gain a deeper and richer range of data in order to extend the study findings. This is especially true by taking advantage of the numerical precision found in the quantitative methods, as well as the narrative richness found in the qualitative methods (Springer, 2010). Another purpose of using a mixed-methods approach is to provide strong evidence through convergence and corroboration of findings. In this respect, the researcher attempts to eliminate potential error or bias, and thereby enhance the possibility of obtaining accurate findings. As noted earlier by Coldeway, metaphorically “to improve the accuracy of locating the source of a signal, it is necessary to measure the signal from different locations, or to use differing measurement techniques from different locations” (1988, p. 49).

3.3 Sampling procedure and recruiting participants

The target population of this project was students and faculty members at the KFU involved in the online education programme. There were 67,000 students and approximately 130 faculty members who could participate. A convenience-sampling procedure was noted to be an applicable and effective way of gathering responses from students, that is, the distribution of the questionnaires was based on the availability and accessibility of the target population (Springer, 2010).

The researcher relied on the deanship of e-learning and distance education at the KFU to help in recruiting study participants. Although it was intended that an electronic questionnaire would be sent to all online student and teacher email accounts, it was found that the University did not use email as an official way to send notifications or important information to students or the teaching staff. Instead, the deanship suggested that distribution of hard copies of the questionnaire would be the best possible option, particularly during the examination period, which was held over ten days. There were more
than 100 exam centres spread both inside and outside the country. However, the Alahssa exam centre, located in the KFU campus, had the biggest number of male and female students attending during the examination period. There were nearly 5,500 potential students attending on different days and at different times. Constraints of access to female students were overcome by authorizing a female online learner to distribute questionnaires to her fellow students during the examination period. It is worth noting that this exam centre was also located in an area close to the researcher and thus all participants were accessible, which decreased the effort involved as well as time needed to collect the data. Thus, the focus was on whoever was available and willing to participate among male and female students registered at the Alahssa exam centre. Similarly, a convenience-sampling procedure was carried out when distributing questionnaires to all faculty members involved in online education programme at the KFU. They were invited according to their availability and willingness to complete the research questionnaire. A total of 551 questionnaires were completed by students, and 32 by staff members. Of the participating students, 65% were male (n=359) and 35% female (n=192). Table 2 and Table 3 represent the demographic characteristics of all the participating students and faculty members.

Table 2

<table>
<thead>
<tr>
<th>Demographic variables of the participating students</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>359</td>
<td>65</td>
</tr>
<tr>
<td>Female</td>
<td>192</td>
<td>35</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–30</td>
<td>405</td>
<td>73</td>
</tr>
<tr>
<td>31–40</td>
<td>125</td>
<td>23</td>
</tr>
<tr>
<td>More than 40</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td><strong>Faculty</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>159</td>
<td>29</td>
</tr>
<tr>
<td>Arts</td>
<td>189</td>
<td>34</td>
</tr>
<tr>
<td>Management</td>
<td>203</td>
<td>37</td>
</tr>
<tr>
<td><strong>Nationality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saudi</td>
<td>537</td>
<td>97.5</td>
</tr>
<tr>
<td>Non-Saudi</td>
<td>14</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>339</td>
<td>62</td>
</tr>
<tr>
<td>Part-time</td>
<td>29</td>
<td>5</td>
</tr>
<tr>
<td>Not working</td>
<td>183</td>
<td>33</td>
</tr>
</tbody>
</table>
Owning PC
Yes 545 99
No 6 1

Table 3

Demographic variables of the participating faculty members

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nationality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saudi</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>Non-Saudi</td>
<td>24</td>
<td>75</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 30</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>30–40</td>
<td>9</td>
<td>28</td>
</tr>
<tr>
<td>41–50</td>
<td>16</td>
<td>50</td>
</tr>
<tr>
<td>More than 50</td>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td>Online teaching experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 2 years</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td>2 to 5 years</td>
<td>17</td>
<td>53</td>
</tr>
<tr>
<td>More than 5 years</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Minimum daily hours using the Internet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 2 hours</td>
<td>5</td>
<td>15.5</td>
</tr>
<tr>
<td>2 to 4 hours</td>
<td>17</td>
<td>53</td>
</tr>
<tr>
<td>4 to 6 hours</td>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td>More than 6 hours</td>
<td>4</td>
<td>12.5</td>
</tr>
</tbody>
</table>

To recruit participants for the semi-structured interviews, students and faculty members were asked in the questionnaires if they were willing to be interviewed. Those who agreed to take part were asked to include their contact details. As a result of this procedure, more than 50 students were happy to participate in an interview, while only four lecturers and two programme administrators offered to be interviewed. During this period of collecting the data, faculty members were busy with the exams and assessing their students.
3.4 Data collection

Data were collected from two sources: questionnaire responses and semi-structured interviews. For the former, the researcher prepared two forms of student questionnaire to increase the probability of participation: hard copy and an electronic version using Survey Monkey, which is a well-known, secure, survey software. Programme directors explained to the participants the importance of this study and encouraged them to take part in the project by completing the questionnaire at their convenience. In line with this, the purpose of the study was thoroughly explained on an introductory page to participants in order to familiarize them with the study. This included an overview of the study’s objectives and an estimation of the instrument’s length. In addition, all participants were informed about their freedom to withdraw from the research at any stage.

Hard-copy questionnaires were distributed among those students who came to sit their exams in the Alahssa exam centre. Students who found it difficult to fill in the questionnaire on paper because of limited time before or after the exams were asked to fill in the electronic one. These people were asked to provide the researcher with their email address and phone number for follow-up. As a consequence, 318 hard copies of student questionnaires were returned, as well as 439 electronic questionnaires were received. It should be noted that only three incomplete hard-copy questionnaires were returned, while there were 203 incomplete electronic questionnaires. Although the electronic questionnaire is an economical way of collecting data, students in this study seemed to be unfamiliar with it. In most cases, they opened the link and started with the first section but they did not move to the other sections. These unfilled questionnaires were excluded before analyzing the data. In total, 551 questionnaires were usable. In respect of staff questionnaires, they were all distributed in hard copy. The researcher visited staff members from three faculties (Education, Arts, and Management) at the KFU. As a result, 32 questionnaires were completed and collected. The data-gathering period lasted almost three weeks.

The second source of information for this study was the semi-structured interviews. Based on the returned questionnaires, participants were recruited to take part in the interviews. Although more than 50 students showed interest in participating in the interviews, the researcher only managed to conduct 10 interviews, each lasting up to 20 minutes, that is, 10
students were randomly selected from those 50 students who offered their details. Students who participated in these interviews were willing to take part in another interview session if necessary, but the researcher felt that the collected data from these interviews was sufficient and would cover the purpose of this study. In a similar vein, four out of 32 participating lecturers in the questionnaires offered their details for semi-structured interviews. These sessions were intended to be concise as all online teaching staff were extremely busy marking exam papers. Depending on lecturers’ availability two interviews were conducted face-to-face, while the other two were via the telephone. It is worth indicating that the comments raised by the interviewed students urged the researcher to clarify some recurring issues with some administrators of the online programme. Specifically, the technical problems in Blackboard and online support offered to students. Therefore, an additional two short interview sessions were allocated to two of the executive administrators of the programme. In total, six semi-structured interviews were conducted with faculty members.

3.5 Ethical consideration

In the first instance, the proposed study was approved by the Human Ethics Committee at the University of Otago in April, 2012 (see Appendix D). This approval was sent along with the research proposal and questionnaires to the Vice President for Studies and Development and Community Service at the KFU in order to obtain permission to undertake the study. This was obtained in May, 2012 (see Appendix E). Because the deanship of e-learning and distance education at the University is facilitating this programme, it was important to contact them and inform them of the purpose and significance of this study. An agreement was reached with the dean about how the research could be conducted so that it would not in any way disrupt the schedule of those participants involved in the study. It was suggested that the examination period would be the best time to carry out the study in which the researcher could recruit study participants in person.

3.6 Description of the questionnaires

In this study two instruments were applied to collect responses from both students and faculty members. The first was the Distance Education Learning Environment Survey
(DELES) developed by Walker and Fraser in 2005, and the second was a checklist designed by Hosie, Schibeci and Backhaus at Edith Cowan University (ECU) in 2005.

To begin with, the DELES was the main source shaping the student questionnaire (see Appendix F). This instrument was designed by Walker and Fraser (2005) to measure student satisfaction and enjoyment of their distance education learning environment. The DELES instrument was developed, and validated using the collected responses of 680 post-secondary students from various countries, such as the USA, Australia and New Zealand. It was based on a critical review of the literature that considered high-quality distance programmes and advanced techniques of content validation (Walker & Fraser, 2005). The DELES was constructed based on Moos’s (1974) three psychosocial dimensions: (1) the relationship dimension that assesses instructor support and student interaction and collaboration; (2) the personal development dimension that evaluates personal relevance, authentic learning and active learning; and (3) the system maintenance and change that refers to student autonomy (as cited in Walker & Fraser, 2005).

The DELES is divided into six sections. Each section involves several items that reflect the main theme of the section. The first section contains eight items that examine the support offered by the instructor (e.g., feedback and prompt responses). The second section consists of six items that demonstrate student interaction and collaboration, such as working with others and sharing information. The third section comprises seven items on personal relevance, such as “I am able to pursue topics that interest me” and “I apply my everyday experiences in class”. The fourth section is based on five items that reflect the authenticity of the learning being offered, such as working on assignments that deal with the real world. The fifth section examines items of active learning (e.g., solving problems). The sixth section involves five items that assess personal autonomy in an online learning environment. The subjects were asked to give their feedback on each item on a Likert scale with the following point values: 1 = Always; 2= Often; 3= Sometimes; 4 = Seldom; 5 = Never. It should be noted that two sections were added to the original instrument. The first was to collect students’ demographic variables (e.g., gender and nationality), while the second required participants to provide their contact details if they were willing to participate in the follow-up interview phase of the study.
The reason for choosing the DELES instrument was to explore what was occurring in the online education programme at the KFU based on students’ perception, and then compare the findings with the stated institutional goals. The DELES is designed as a guiding framework for evaluating the environment in post-secondary distance education. It reveals student satisfaction and perception of the quality of distance education (Walker & Fraser, 2005) apart from their outcomes and achievements. Also, this instrument was successfully used and tested by different studies conducted in similar contexts, such as Turkey and Palestine (Azaiza, 2010; Özkök, Walker, & Büyüköztürk, 2009; Sahin, 2007).

In respect of the faculty member questionnaire, the ECU’s checklist was applied (see Appendix G). It provides a checklist of 15 statements presented in three categories: pedagogy, resources, and delivery strategies. Three options (never, sometimes, and always) were designed to illustrate the frequency of adherence to each statement. Two sections were added to the original instrument. The first section focused on gathering demographic information (e.g., gender and nationality) about faculty members, while the second required participants to provide their contact details if they were willing to participate in the interview sessions. The researcher found this checklist fitted the purpose of the current study. It could be handed to the staff in order to explore the effectiveness, strengths and weaknesses of the online courses (Hosie, Schibeci & Backhaus, 2005). It also investigates areas that are very close to some areas of the DELES questionnaire (i.e., authentic learning and active learning). This could enable the researcher to triangulate findings from the student questionnaire with findings from the faculty instrument. In other words, findings from both questionnaires would reveal whether or not teachers and students acquired the same perspectives about the online education programme at the KFU. In this respect, some differences between students’ perspectives and those of their teachers might be identified and explored. Teachers may also perceive their teaching more positively in contrast to the views of students. This would lead to greater insight into the learning environment at the KFU.

3.7 Validity and reliability of the questionnaires

Validity is a critical step that the researcher needs to be aware of when selecting or designing an instrument. It demonstrates the ability of the study instruments to accurately
measure what the researcher intends (Gall, Borg & Gall, 1996). This includes content validity, criterion-related validity, and construct validity (Springer, 2010).

Construct validity of the DELES was well documented in the study of Walker and Fraser (2005). All the questionnaire items were analyzed in order to ensure that they are truly measuring the needed objective. Items with factor loadings $\geq 0.55$ within their own scales were kept, whereas items with factor loadings $< 0.55$ were discarded. Thus, 14 items out of the original 48 items were eliminated after factor analyzing, and thus a six-scale instrument with 34 statements was framed. The percentage of variance explained by the scales ranged from 6.01% to 14.31%. Although, the cumulative variance reported by all six scales in the survey was 67.15%, decreasing the 34 items to six scales contributed to an economical description of what is being examined (Walker & Fraser, 2005). In addition, the DELES instrument has been used quite frequently, and each time has offered a reasonable degree of validity and reliability (Özkök, Walker & Büyüköztürk, 2009; Azaiza, 2010).

Reliability refers to the consistency of the research measurement (Springer, 2010). The authors of the DELES instrument assessed internal consistency by using the coefficient alpha test along with all six scales. The result of this test was satisfactory with an acceptable degree of internal consistency reliability ranging from 0.75 to 0.94 (Walker & Fraser, 2005).

However, the ECU’s checklist has not been used widely and thus its validity and reliability cannot be accurately assessed. The researcher, further, emailed one of the main contributors to this checklist who agreed that this instrument had not been used so there is no data on it. Nevertheless, this instrument was used to play a complementary part along with other research instruments.

The researcher used different methods to evaluate and assess the content of the study instruments and ensured that the items were appropriately translated into Arabic (see Appendix H and I). Both questionnaires were translated into Arabic and these were reviewed by two linguistic postgraduate students at the University of Otago, who are bilingual experts, in order to make them more understandable for the study participants. Also, a panel of specialists in the Arabic language voluntarily reviewed the translation in order to achieve the best possible degree of accuracy. Then, staff and student questionnaires were sent randomly...
to four faculty members and eight students at the Arab Open University (AOU), which offers a full online education programme. The purpose of doing this pilot study was to demonstrate how the questionnaires would measure study variables, and to make sure that the design and translation suited the subject matter.

3.8 Description of the semi-structured interviews instrument

A semi-structured interview was another instrument used in the study with both students and faculty members involved in online education programme at the KFU. The purpose of using a semi-structured interview was to understand thoroughly the answers provided in both questionnaires by asking more in-depth open-form questions (Gall et al., 1996). This assists in collecting valuable information that could be difficult to obtain by other methods (Borg & Gall, 1979). The questions were structured around aspects included in both questionnaires, such as teacher support, student collaboration and the quality of lesson delivery. They were arranged to obtain more clarification where necessary and enable in-depth details to flow from participants. As a result, fifteen questions were designed for students’ interview, and twelve questions for faculty members’ interview (see Appendix J and K). It should be noted that all the interview sessions were conducted in Arabic because it is the first language of the study participants, and then afterwards translated into English (see Appendix L and M). In total, sixteen interviews were conducted: ten with students and six with faculty members. They were all audio-recorded and each participant was assigned a specific code (see Table 4 and 5). This was done to protect privacy and confidentiality of the participants (Gall et al., 1996).

Table 4

<table>
<thead>
<tr>
<th>Code</th>
<th>Gender</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEC-1</td>
<td>M</td>
<td>College of Arts</td>
</tr>
<tr>
<td>LEC-2</td>
<td>M</td>
<td>College of Education</td>
</tr>
<tr>
<td>LEC-3</td>
<td>M</td>
<td>College of Arts</td>
</tr>
<tr>
<td>LEC-4</td>
<td>M</td>
<td>College of Arts</td>
</tr>
<tr>
<td>LEC-5</td>
<td>M</td>
<td>Programme administrator</td>
</tr>
<tr>
<td>LEC-6</td>
<td>M</td>
<td>Programme administrator</td>
</tr>
</tbody>
</table>

59
Table 5

*Codes used for the participating students in the semi-structured interview*

<table>
<thead>
<tr>
<th>Code</th>
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<th>College</th>
<th>Level</th>
</tr>
</thead>
<tbody>
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<td>4</td>
</tr>
<tr>
<td>STU-2</td>
<td>M</td>
<td>Management/BA</td>
<td>4</td>
</tr>
<tr>
<td>STU-3</td>
<td>M</td>
<td>Management/BA</td>
<td>2</td>
</tr>
<tr>
<td>STU-4</td>
<td>F</td>
<td>Arts/English</td>
<td>6</td>
</tr>
<tr>
<td>STU-5</td>
<td>M</td>
<td>Education/Special Needs</td>
<td>5</td>
</tr>
<tr>
<td>STU-6</td>
<td>M</td>
<td>Management/BA</td>
<td>5</td>
</tr>
<tr>
<td>STU-7</td>
<td>M</td>
<td>Arabic Language</td>
<td>1</td>
</tr>
<tr>
<td>STU-8</td>
<td>F</td>
<td>Arabic Language</td>
<td>4</td>
</tr>
<tr>
<td>STU-9</td>
<td>F</td>
<td>Arts/Social Science</td>
<td>3</td>
</tr>
<tr>
<td>STU-10</td>
<td>F</td>
<td>Management/BA</td>
<td>1</td>
</tr>
</tbody>
</table>

3.9 Credibility, dependability and confirmability of the semi-structured interviews

In qualitative research the terms *credibility, dependability* and *confirmability* are essential criteria for quality (Lincoln & Guba, 1985). To address these aspects, several provisions were made in this study. Specifically, it was intended to promote the research credibility in which the phenomenon is accurately measured. All the interviewed students were randomly selected from those who provided their contact details, while a convenience sampling was applied on the staff interviews. Most of the interviews were conducted via the telephone, because it could increase the response rate and help overcome cultural restrictions when interviewing female participants. The researcher provided each participant with an in-depth description of the study. Before the interviews started, participants were asked to sign a consent form showing their agreement to cooperate in the study (Borg & Gall, 1979). During each interview, the researcher made it clear that all the collected data would be kept by the researcher and not passed on to the KFU. This was very effective and worked well with all interviewees as they felt more comfortable in expressing their perspectives on their study. In order to demonstrate the dependability for this study, the researcher has ensured that a full description of the research process (e.g., interview transcripts and data collection) is available to allow the study to be repeated or scrutinized (Bryman, 2001). All strategies of gathering the data in the field were documented in detail. In terms of the research
confirmability, it was ensured using a triangulation strategy. The findings from the interviewed students were triangulated to those obtained from the interviewed faculty members. This was done to reduce potential error or bias of the researcher. Along with that, relevant literature was reviewed in order to build a reasonable background that could help in framing the findings (Maykut & Morehouse, 1994).

3.10 Procedures for treating, coding, and analyzing the collected data

The data that was collected from both questionnaires and semi-structured interviews were translated into English and then saved in an Excel spreadsheet and Word document respectively. In order to answer the research question, both quantitative and qualitative data were analyzed separately as follows.

3.10.1 Analysis of the quantitative data

The collected data were analyzed using the Statistical Package for the Social Sciences (SPSS20.0). First of all, a Q-Q plot was conducted to assess the assumption of normality and equality of variance. The result from this plot, as shown in the graph below, indicated relative normal distribution of the collected data with the quantile pairs falling almost on a straight line (Field, 2000).

![Normal Q-Q Plot of Unstandardized Residual](image)

Simple descriptive statistics were applied to student questionnaires to calculate the Mean and Standard deviation of each scale: Instructor support, Students’ collaboration and
communication, Personal relevance, Authentic learning, Active learning, and Student autonomy. The means for each scale were calculated in order to treat them as one variable. This is a common procedure and has been applied by many researchers when using this instrument (Azaiza, 2010; Özkök et al., 2009; Sahin, 2007). This analysis offered the researcher an opportunity to demonstrate how learners perceived the online learning environment on each scale. In this case, the lower mean of each scale was associated with greater satisfaction of the online learning environment. Similarly, simple descriptive statistics were conducted to calculate frequencies and percentages for some attributes in the Staff questionnaire, such as Authentic tasks, Opportunities for collaborations and Learner-centred environments. The final technique used was an independent t-test to determine the extent to which gender affects communication and collaboration.

3.10.2 Analysis of qualitative data

Using qualitative data for this study was vital, not only to consolidate the findings from both questionnaires but also to clarify some issues that were unclear or not covered by the quantitative data. The qualitative responses were translated from Arabic to English, documented in a transcript and then saved as a Word document. Pseudonyms were assigned to individual participants to protect their privacy and confidentiality (Gall et al., 1996).

The analysis of this section was guided by Thomas’s (2006) analysis approach in which all the interview sessions followed an inductive approach. According to Thomas (2006), “The inductive approach is a systematic procedure for analyzing qualitative data in which the analysis is likely to be guided by specific evaluation objectives” (p. 238). Further, the qualitative data were coded into themes with consideration of the study’s objectives, and hence the following process was undertaken:

1. Organizing the data: this included translating the interviews into English and writing a precise transcript.
2. Reading the transcript carefully in order to understand the underlying themes or events.
3. Creating initial themes by identifying the text segments by codes.
4. Combining overlapping themes and discarding irrelevant segments.

5. Identifying the most important themes: this included highlighting the most suitable quotations.

3.11 Chapter summary

This case study was based on a mixed-methods approach to capture students’ and faculty members’ perceptions of the KFU online education programme. In this chapter, the researcher addressed the research methodology of this study by describing the sample methods and research instruments used in this study. It also included the qualitative issues that were used for answering the research questions. The following chapter contains a detailed analysis of the data gathered and the findings of the study.
4.0 Introduction

The commitment to online education at the King Faisal University (KFU) has been demonstrated to meet various ambitious goals and priorities by a well-developed plan to address the required resources and support those involved in the programme. This study aimed to explore the institutional goals of online education at the KFU in light of the perceptions of student and teaching staff. More specifically, it examined the extent to which the stated objectives are being attained. With this in mind, this section is organized in accordance with the research question. All the 15 objectives of online education at the KFU, mentioned and discussed in the previous chapters, have been examined based on the study findings. These objectives have been divided into three themes: accessible and flexible online education, effective online education and online education quality assurance. The research findings are presented, analyzed, and discussed under the relevant themes and objectives, in order to present the findings and their relationship to the literature in a clear and logical structure. This procedure enables the perspectives of students and faculty members to be compared with the KFU’s stated policy and objectives for its online education programme.

4.1 Theme One: Accessible and flexible online education

This theme includes five objectives in relation to the accessibility and flexibility of online education at the KFU. These objectives include various issues in relation to the accessibility and flexibility of its online education programme, such as equity and access to education, interest and demand, culture, distance from the University, and cost. For the purpose of this study, these objectives are explored separately based on students’ and lecturers’ perspectives, as follows.
4.1.1 Objective One: Widening the access to higher education and responding to the growing social demand for this type of education.

Findings from the semi-structured interviews revealed that this programme is perceived as a useful approach and thus responds to public demand for education. All the interviewed students expressed their satisfaction towards the study in this programme. STU-5 stated, “Online courses are convenient and suitable solution for those students who cannot enroll in face-to-face education.” Students’ perspectives revealed the programme flexibility and accessibility. It has widened the access to higher education for all students regardless of their age, gender or location. Students who participated in the interview sessions explained their high appreciation of this form of education. This programme opened up a wide range of options to them; as STU-7 pointed out “I think this programme gave me a chance to complete my higher education and helped me pursue my desire to learn.” This finding is compatible with previous studies (Hamdan, 2011; Alhawiti, 2011) that online education could reach more students who could not attend traditional face-to-face classes in KSA.

Moreover, the interview sessions with lecturers also showed their pleasure from having such a form of learning that accommodates numerous students despite common constraints such as university capacity or remote location. LEC-2 acknowledged that this programme enabled students to pursue their higher education by having the course available at any time and from any location. Further, LEC-2 said that it motivated those who seek lifelong learning and disadvantaged groups (e.g., older and employed students) to follow higher education.

The programme administrators feel proud of having the ability to educate older people who otherwise would not have had the opportunity to learn. They reported the efficiency of this programme in widening learning opportunities. Online learners do gain access to the courses from anywhere at a time suitable to them. One of the interviewed lecturers illustrated this with the following comment:

… with technology, it is not a matter to study at distance. Students in this program are able to overcome the lack of physical appearance … they can stay in touch with their lecturers in different times, places and via several communication channels. (LEC-3)
Although online education was only made available in 2009, the KFU has managed to increase its capacity of students’ enrolment dramatically. More significantly, it had the second highest university enrolments in the KSA in 2011 (Mohe, 2010a). Currently, there are around 67,000 distance students, almost twice the number of regular students. At the same time, this online programme reaches a wide range of learners (e.g., adult and international students) compared with conventional classroom instruction. Table 6 shows the demographic information of the participating students. This includes enrolment according to gender, age and employment status. These figures demonstrate the diversity of people enrolled in this programme. In addition, there is a good percentage of students who do not live near the University campus. This appeared clearly when considering the different locations of the exam centres. Some of the interviewed students also asserted this point stating that most of their fellow students live in different cities in the KSA.

Table 6

*The demographic information of the participating students*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Employment status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>M</td>
<td>359</td>
<td>65</td>
</tr>
<tr>
<td>F</td>
<td>192</td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td>551</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>551</td>
</tr>
</tbody>
</table>

Increasing access to learning opportunities is a critical need in a sprawling country such as the KSA. Matar et al. (2011) argue that e-learning in the Arab region can provide practical and less expensive solutions, and thereby increase access to education. The data showed that the KFU has attained this objective. It has expanded access to higher education and satisfied those individuals who would otherwise have missed the chance to pursue higher learning. In that sense, this result echoes Alsunbul (2002), Alshehri (2005) and Alebaikan and Troudi (2010) who point out that online education is an effective solution to contemporary constraints such as remote location and limited university places. Zakari and Alkhezzi (2010) conducted a similar study in which they examined students’ perspectives of online education offered by the Arab Open University (AOU). They found that online education
succeeded in widening access to higher education in the Arab states. Hamdan (2011) suggests that, “The need to expand access to higher education is one of the main factors driving the ongoing growth of online learning in the Kingdom” (p. 186).

4.1.2 Objective Two: Creating an electronic learning environment that motivates students off campus and from all over the KSA to study at the University.

The KFU is relying on online technology to create an online learning environment that is attractive, appropriate to the learners’ contexts and promote enjoyable learning. In Koper’s (2000) words, online environments are those “advanced, flexible, social systems, supported with ICT” (p. 1). The collected data showed that this online education programme with an electronic learning environment motivates students in and out the Kingdom (e.g., in Yemen and Jordan) to enrol. This is true if we consider the high number of enrolments from both inside and outside the country. Although the research sample demonstrated a low percentage of non-Saudi students (3%), this was simply caused by the distribution of exam centres in and out the KSA. In other words, the majority of non-Saudi students were not accessible to the researcher as they had the opportunity to sit exams at the centre closest to them. Nevertheless, those international students who participated in the interviews agreed that the KFU’s programme was attractive and convenient for their circumstances. STU-4 commented, “I found the KFU programme is more suitable for me compared to the other online programmes in the KSA.”

In addition, this programme provides a bachelor’s degree in various majors, such as business administration and Arabic and English languages. Along with that, the content of the course papers seems to be useful and relevant to students. As STU-9 indicated, “What we are learning is really helpful … we learn new and old concepts.” Further, this programme opens up new opportunities to students in which they can pursue their interests and ambitions. STU-5 explained, “The obtained degree from such a programme gives me a chance to change my current job or move to a new position that fits my ambition.” The teaching staff also felt that the learning process was interesting in its nature. Students were exposed to new ways of thinking and engagement. As indicated by many researchers (e.g., Evans, 1994; Moore & Kearsley, 2005) regardless of the reason for online education, it should attract and compensate learners for the time, effort and cost involved. Significantly, students in
continuing education have diverse ages, interests and backgrounds. Some are interested in work-based skills, while others seek academic achievement or self-development (Mitchel & O'Rourke, 2008; Jung, 2012).

Turning to the quantitative data, descriptive analysis was conducted to calculate the mean and standard deviation of the scale that measured *Personal Relevance* in the student questionnaire. This was to examine the extent to which the participants considered the online learning environment to be relevant and to capture their interest. This analysis demonstrates that most of students’ responses fell into the positive side of the scale suggesting that they perceived their learning environment to be valuable, interesting and related to their life outside the university. Specifically, it addressed their needs, interests and prior experiences as shown in Table 7. In total, the mean score was almost 2 on a 5-points scale, which indicates often occurring.

Table 7

*The Mean and Standard Deviation of the scale Personal Relevance*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal relevance</strong></td>
<td>551</td>
<td>1.00</td>
<td>5.00</td>
<td>2.02</td>
<td>0.78</td>
</tr>
</tbody>
</table>

Findings from the qualitative and quantitative data in relation to this objective were consistent with previous research that illustrates the importance of enjoyment, usefulness and ease of programme materials in online education (Sun et al., 2008; Alenezi, Karim & Veloo, 2010). The online education programme at the KFU maintained these features in a way that captures and satisfies the student’s interest. It is found that enabling students to contextualize what they learn to real-life settings and personal meanings is critical to make them more motivated to study (Ally, 2004; Campbell & Gibson 2008). In sum, course development being done at the KFU takes into account the local and regional needs. In turn, learners are able to pursue topics that interest them as well as apply their personal experiences (Sparkes, 1993; Cooper, 2002).
4.1.3 Objective Three: Promoting flexible learning, and liberating it from conventional constraints, including time and place.

All courses in the KFU’s online education programme are supported with various technologies (e.g., virtual classrooms and Blackboard). This is especially true if we consider that all the learning materials and applications can be used and accessed at any time and from any location. Students can use their own PCs, laptops or smart phones to stay connected to lesson activities. All the online services offered to distance learners can be accessed via mobile devices. The KFU is rated as the first university in the KSA to offer and support Mobile Learning (“The deanship of e-learning and distance education”, 2012). This flexibility makes an online learning environment available for both students and lecturers at any time and place. More specifically, the students and lecturers interviewed clearly illustrated how this programme offered them flexible learning and teaching opportunities which helped them to overcome barriers such as family responsibilities and social obligations. This was demonstrated by the quantitative data that showed nearly 70% of the students were working either full-time or part-time (as mentioned earlier in Table 6). Further, the interviewed students agreed that this online programme was flexible and manageable with respect to their responsibilities. STU-5 asserted this point stating “I’m working nine hours and I have two kids in addition to many other responsibilities, even though I managed to perform very well over the last semesters.” Students appreciated the way the programme was organized, in particular having regular internal assessment during the year. Students in this programme are not asked to attend the University campus for any reason except sitting the final exams. However, unlike other online education programmes being offered in the KSA, students in this programme have the advantage of choosing from more than 100 exam centres, distributed both inside and outside the country. Such arrangements cut down the need to travel from place to place. This is especially critical in the context of the KSA, which is a sprawling country. In fact, this point was raised and acknowledged frequently among all the interviewed students. STU-1 mentioned, “the KFU programme is more suitable for me than other programmes in Saudi … it has many exams centres so I do not have to travel to sit the exams.” In addition, the participating female students appreciated having separate exam venues that offered them privacy and convenience.
More fundamentally, the collected data revealed that learners in this programme appeared to have the ability to study at their own pace and manage their work independently. Table 8 represents the mean and standard deviation of the scale that measured Student Autonomy in the student questionnaire. Most of the students’ responses to the items included in this scale ranged from 1 to 2 on a 5-point scale indicating a high satisfaction with the level of autonomy offered in this programme. The calculated mean was 1.7 and standard deviation was 0.67.

Table 8

The Mean and Standard deviation of the measure of Student Autonomy

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
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<td>5.00</td>
<td>1.67</td>
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</tbody>
</table>

Interestingly, findings from the semi-structured interviews concurred with the analysis of the quantitative data. The interviewed students reported a high level of satisfaction, particularly about having more control over their learning. Students in this programme could make the decision of when and where to study. STU-1 offered this comment: “This type of education makes me feel free and self-organized … I can set out my own time and study independently.” LEC-5 articulated that because of this flexibility, students are able to complete their higher education, develop work-related skills and expand their knowledge regardless of gender, remote location or responsibilities.

Previous researchers have reported similar results about the flexibility of online education and how it could overcome very wide obstacles to education. The findings of Al-Shehri (2010) and Hamdan (2011) suggest that issues of accessibility including family responsibilities and distance from campus could be overcome with online education. Online education in the KSA could also accommodate the religious and cultural constraints of segregating male and female students and thus provide the latter with more flexible educational opportunities (Al-Sharhan, 2000; Al-Shehri, 2010).

The discussion of this objective can be taken one step further by examining faculty members’ points of view about student autonomy in this programme. Their perspectives on this were neutral. The calculated mean of the item “There is a focus on activities that provide degrees of freedom, decision-making reflection and self-regulation” was almost 2
and the standard deviation 0.64 (see Table 9). This indicated that lecturers perceived the learning environment to offer a relative but not total degree of freedom and reflection to the learners.

Table 9

The Mean and Standard Deviation of the item Learner-centred environments

<table>
<thead>
<tr>
<th>Learner-centred environments</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>32</td>
<td>1</td>
<td>3</td>
<td>1.91</td>
<td>0.64</td>
</tr>
</tbody>
</table>

This attitude was further clarified by the online teaching staff who were interviewed. They mentioned that students’ responsibilities to some extent hindered them from following up lesson activities. Students appeared to be overwhelmed by their different roles within a learner-centered environment. LEC-3 stated that although students in this programme were able to access the learning materials at any time and from different places, few of them benefited from this flexibility. Students mainly visit Blackboard during the examination days to download the needed resources or to contact their teacher. This result echoes the findings of Alsunbul (2002), Abdelraheem (2006) and Sultan et al. (2012) who propose that the concept of distance education in the Arab region is alien and requires a new culture that has a long way to go in order to be properly developed and disseminated.

In short, course flexibility is found to be an essential element in offering online education. As noted by Cohen (2003), “a key difference in online learning is the choice students have in determining when, where, and how to learn” (p. 108). Students in continuing education normally have family obligations or work-related constraints, and hence they need educational opportunities that do not conflict with such responsibilities (Sun et al., 2008). Thus, the KFU needs to familiarize students with their different roles in online education in order to make them more committed, active and self-disciplined. As Wheeler (2003) states, “Flexibility can be measured not only in terms of the student’s choice of where to study and when to study, but also by personal control over the study regime” (p. 179).
4.1.4 Objective Four: Reducing the cost of education and making it accessible to every member of the community according to his/her abilities and interests.

The steady increase in population in the KSA, as mentioned earlier, as well as the limited capacity of the universities, makes online education a necessity for all citizens. However, online education is not being offered cost-free as are all other forms of education in the KSA (e.g., public universities and schools), nor is it subsidized by the Saudi government so that the student pays only a small proportion of the total fees. Typically, distance learners in the KSA must be able to afford the tuition fees. Thus, it is imperative for online education providers to ensure that the cost is affordable to target students and an acceptable expense. Evans (1994) makes this point clear, noting that the cost of distance education needs to be reasonable to students, employers, scholarships providers and sponsors.

In this respect, the cost of online courses offered in this programme appeared to be competitive and reasonably priced. All students who participated in the interviews perceived the cost to be acceptable and affordable compared with other institutions. STU-1 acknowledged that, “it is really cheap and without even registration fees.” Similarly, STU-6 indicated that, “In comparison to the other educational institutions that offer distance education, this programme is the cheapest.”

Apparently, online education programme at the KFU is reducing the cost for students. Although the collected quantitative data showed that more than half (60%) of the participating students were full-time workers, which could be associated with their ability to pay the fees, there was a good percentage (almost 30%) of non-working students (mentioned earlier in Table 6). In line with this, the different methods of payment (e.g., direct debit or online transaction) contributed to making higher education accessible to a wide range of regional, national and international students. The interview sessions showed that students did not have to come to the University campus in person to pay course fees.
4.1.5 Objective Five: Designing a variety of educational resources and using multiple media in order to capture students’ interest and increase their engagement and interaction.

Online education programme being offered at the KFU uses different strategies and methods of lesson delivery (e.g., discussion forums and synchronous/asynchronous lectures). The intention is to organize a wide range of communication channels in order to diminish transactional distance and cater for individual differences. As illustrated by LEC-3 and LEC-5, the use of online technology stimulates students to stay connected with their teachers as well as their fellow students. They can easily join the online learning environment and participate in lesson activities. It is noted that delivering online courses through a variety of media and educational resources is an effective and beneficial strategy. Online education with the emerging technology has ability to bridge the transactional distance (Moore, 1993). It can enhance the distance learner’s outcomes and address student diversity (Moore & Kearsley 2005; Cavanaugh, 2002; Ally, 2004). In doing so, students are able to study through much broader learning materials and flexible activities (Palloff & Pratt, 2003).

In this programme, all learners are given open access to course papers and materials from any location and at their convenience. Students are able to download materials and communicate with their fellow students through various channels (e.g., email, discussion forums). In addition, most of the interviewed students expressed their enjoyment of the courses’ resources and activities. They appreciated the ease of dealing with paper requirements and assessment via the electronic domains. STU-3 stated, “It is not the first time I had experienced distance education but this programme is more flexible … all the lectures are recorded so I can listen to them at anytime.”

The use of Blackboard allows students to be flexible in their choices of time and place of access to the course. Its communication tools provide the means for students to engage with each other and its assessment tools enable teachers to track and supervise the progress of students throughout the entire educational cycle. The interviewed lecturers observed these opportunities for learning to be valuable and effective forms of education. They acknowledged the ease in following and administering online course activities, such as online discussions and lectures. LEC-5 pointed out “In this programme the KFU relies on
different resources and strategies for lesson delivery.” Some of the teaching staff report that online learning environments helped some students to develop a sense of community, which reinvigorated their enthusiasm for learning. One of the respondents (LEC-2) reported that, “I normally leave the discussion to students and observe their contributions … I see the thread is marvelous.” That is, the combination of multiple media that are interactive, synchronous or asynchronous enables a rich representation of the knowledge and powerful opportunities for student engagement and interventions (Bates, 2008).

These findings were also supported by the results obtained from the staff questionnaire. A simple descriptive analysis was conducted to calculate the mean and standard deviation of the online resources being used in this programme. This was in relation to resource accessibility, currency, richness, diversity and inclusivity, as shown in Table 10.

Table 10

<table>
<thead>
<tr>
<th></th>
<th>Accessibility</th>
<th>Currency</th>
<th>Richness</th>
<th>Diversity</th>
<th>Inclusivity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>1.25</td>
<td>1.25</td>
<td>1.28</td>
<td>1.44</td>
<td>1.84</td>
</tr>
<tr>
<td><strong>Standard deviation</strong></td>
<td>0.44</td>
<td>0.50</td>
<td>0.52</td>
<td>0.66</td>
<td>0.80</td>
</tr>
</tbody>
</table>

It appeared that the teaching staff held a positive attitude towards the resources used in this programme. Across all areas the mean scores ranged close to the top positive half of the scale (1=always), with the exception of the scale for Inclusivity. This scale intended to examine the extent to which the materials demonstrated cultural and gender inclusivity. Given the fact that this online education programme accommodated the religious and cultural constraints in which male and female students are segregated, not only in the exams but even in discussion forums, this was a surprising outcome. An independent \( t \)-test was another technique conducted to determine the extent to which gender differences affected student communication and collaboration (see Table 11). Results from this analysis revealed significant differences between male and female students’ perceptions of communication and collaboration in online activities. One should note that there is a small difference between the means of male and female groups, which could affect the result of this test. In essence, this programme offered both male and female students equal access and opportunity for participation. This finding concurs with Albalawi’s (2007) findings that
faculty members in the KSA believe in online education because of its ability to ensure
gender segregation without disadvantaging one group over the other.

Table 11

*Independent Samples t-test*

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interaction and</td>
<td>M</td>
<td>359</td>
<td>2.23</td>
<td>0.95</td>
</tr>
<tr>
<td>Collaboration</td>
<td>F</td>
<td>192</td>
<td>2.03</td>
<td>0.85</td>
</tr>
</tbody>
</table>

* t-test result: \( t = 2.40, \ df = 549, \ p = 0.017 \)

To sum up, five objectives were explored in this theme. This was in relation to equity and access to education, interest and public demand for flexible education, study costs, culture, and distance from the University. Findings from this section showed that the KFU online education programme has the ability to reach a large number of learners and enable them to achieve a higher degree at their convenience. It is based on accessible and reliable online technologies that could empower student engagement and interactions through different domains. According to students’ and faculty members’ perspectives, the KFU online education programme provided accessible and flexible learning opportunities for students regardless of age, gender, or nationality. The questionnaires completed by the participating students underscored that they came from different backgrounds. The qualitative data showed that students were offered flexible educational opportunities that did not conflict with their basic responsibilities and roles in society. In addition, it was found that those students, who could not access education beyond high school because of circumstances such as university overcrowding, remote location from universities or personal obligations, were willing to continue their education through the KFU programme. This might indicate that if online education had been available earlier, many people would not be deprived of pursuing higher education. Moreover, the qualitative data revealed that almost all students were satisfied with the cost of the online courses. This programme appears to be very economical, with no need to travel to the University campus for enrolling or sitting final exams. Female students also showed a favourable attitude to learning from home. These findings are compatible with those of other researchers (Cavanaugh, 2002; Cohen, 2003; Ally, 2004) that distance learners should be exposed to flexible and accessible learning opportunities in which they are able to interact and collaborate via different types of media.
The following section examines students’ and lecturers’ views on whether or not the online learning environment at the KFU is effectively designed.

4.2 Theme Two: Effective online education

This theme includes five objectives about the effectiveness of the online learning environment at the KFU. These objectives have emerged from broader national and regional trends. The deanship of e-learning and distance education has articulated these objectives to address the social, cultural and economic demands through online education programme. It seeks to address a variety of aspects, such as structuring communication and interaction, developing new qualifications, engaging students in active learning opportunities, providing satisfactory guidelines and support for students, and valuing society’s desires and interests. The five objectives proposed by the KFU are examined separately based on the perceptions of students and faculty members involved in online education at the KFU.

4.2.1 Objective One: Increase the level of interaction between academics and students and between students.

Online education being offered in the KFU is applying a well-developed strategy of communication that combines multiple approaches. First of all, each paper has its own discussion forum as a platform for interaction between students and teachers, as well as between the learners themselves. Discussions in these forums are built on 14 topics, distributed throughout the semester. It is perhaps worth noting that male discussion forums are separated from those designed for female students. Arguably, this is due to the cultural and religious constraints dominant across the country. Secondly, there are recorded lectures as a form of one-way content delivery that are broadcast to students via Blackboard. In these recorded lectures, the teacher is able to discuss and explain the subject matter to their students. This approach enables learners to interact with content and information being delivered by the lecturer. Moore (1989) describes this type of communication as self-directed learning. Besides, there are three online lectures for each paper that offer online tutoring, counselling and support. Finally, all lecturers are given cell phones and email accounts so students can contact them directly within office hours. Such utilization of
different communication tools can promote group work and student collaboration and interaction between students, and with lecturers (Cavanaugh, 2002; Cooper, 2002).

Turning to the collected quantitative data, a simple descriptive analysis was used to calculate the mean and standard deviation of the scale that measured Students interaction and collaboration in the student questionnaire. This was to show the extent to which students perceived the level or amount of communication and interaction in their online environment. As represented in Table 12, the participating students perceived interaction and collaboration work occurred quite often, with the mean score of almost 2, and standard deviation 0.92. This scale included six items that reflect the collaborative work and peer interaction among the learners. As noted by Anderson and Garrison (1998) and Cohen (2003), for online courses to be successful, collaborative work and interaction need to be treated as an essential activity that is linked to the course outcomes and assessment rather than as an optional action.

Table 12

*The Mean and Standard Deviation of the scale Students’ interaction and collaboration*

<table>
<thead>
<tr>
<th>Students interaction and collaboration</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>551</td>
<td>1.00</td>
<td>5.00</td>
<td>2.2</td>
<td>0.92</td>
</tr>
</tbody>
</table>

At the same time, two items in the Staff questionnaire were examined. Specifically, the opportunities for collaboration and engaging the learners, as presented in Table 13. This analysis for both items demonstrated that staff responses fell into the neutral area (almost 2= sometimes). They perceived the learning environment sometimes offers opportunities for collaboration and supports student engagement.

Table 13

*The Mean and Standard Deviation of the scales collaboration opportunities and student engagement*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration opportunities</td>
<td>32</td>
<td>1</td>
<td>3</td>
<td>2.03</td>
<td>0.695</td>
</tr>
<tr>
<td>Engagement opportunities</td>
<td>32</td>
<td>1</td>
<td>3</td>
<td>1.97</td>
<td>0.647</td>
</tr>
</tbody>
</table>
The interviews provided a further explanation for the staff questionnaire responses and yielded some interesting points. The availability of different types of communication channels to facilitate the process of engagement, interaction and collaboration with others was acknowledged and appreciated among all the study participants. Significantly, LEC-5 argued that the KFU is aiming to build a sense of community in which learners are able to communicate and interact with their fellows and teachers.

Discussion forums were one of the main channels for asynchronous communication and interaction between students as well as between instructors and students. Although the participating students agreed that there were discussion forums for each paper, these were not being used effectively by either students or lecturers. In other words, discussion in these forums failed to engage students or capture their attention to participate in the discussion threads in most papers. Students reported that most of the comments were similar and did not reflect an academic discussion. Although students were required to post at least three comments weekly for each lecture or topic, their comments were mostly not followed up by their lecturers. Apparently, a discussion thread was based on the feature of “copy and paste” found on the web, in which students copy others’ comments and paste them under the same topic. Unfortunately, there was a consensus among the students that discussion forums were useless and only played a marginal role in the learning process. STU-4 acknowledged: “I hate the discussion forum … it is time consuming without any benefit.” Another quote is particularly relevant here:

The discussion in the forum is only “copy and paste”. Actually, I used to participate in the discussion enthusiastically by summarizing the lecture and writing a thoughtful comment but when I come back to check my participation I discover that all the other responses are ‘copy and paste’ ... so I decide to not to waste my time any more. (STU-5)

Students mainly participated just because they wanted to obtain the assigned mark for the discussion instead of reflecting on their thoughts and ideas. However, a programme director articulated that the deanship has now cut this feature and therefore students cannot do it anymore. He further added that “Students were informed that all identical comments would not be counted in the final assessment, except the first comment” (LEC-6). Overall, these findings showed that discussion forums were not being used to promote students’ learning and interaction. The use of other ideas or comments and the absence of teacher consultation
would not increase the level of online interaction, nor would it help building online community as assumed in this objective. As Cohen (2003) proposes, responding to a discussion post can enhance critical thinking in online learners. As such, they become more responsible for formulating comments that are useful to other students and relevant to the subject matter. In this programme, there was little critical discussion within class forums despite students reporting reasonable communication and collaboration in Table 12.

Some of the interviewed lecturers admitted that they were not familiar with these online environments. This might have impacted negatively on their ability to navigate and control the electronic forums. It is observed that some of the teaching staff were away from the discussion and did not follow their comments or questions around the topic daily or even weekly basis. More significantly, they were not maintaining frequent interaction with students, nor did they encourage learners to check who was responding to their comments. LEC-4 indicated that, “We prepare questions and discussions but we do not observe them, nor do we comment on them … I do not see students’ answers or discussions.” He stated that students are assessed electronically, so the lecturer has no control over their participation. Other instructors found it extremely difficult to engage students and increase the level of interaction in the discussion threads. This difficulty was associated with various reasons including the large enrolment of students, unfamiliarity with the online environment, and technical issues.

To begin with, student enrolments in this programme were extremely high. Courses were designed to enrol hundreds of students in each paper, which simply increased the workload of the teachers. This element, per se, could negatively affect the level of interaction between the teacher and the students as well as between the students themselves. As noted by many researchers (e.g., Kramarae, 2003; Cohen, 2003) online teaching demands more time and effort than face-to-face education, and thus it is recommended that online courses should be much smaller than traditional courses offered on campus. This lack of discussion within online courses in this programme could be also attributed to the lack of experience and skills needed in self-directed environments among those learners. However, the success of online education is largely determined by the extent to which the institution is able to organize a well-structured dialogue between teacher and learners, and between learners (Moore & Kearsley, 2005). Typically, there is a need to build a sense of community among online
learners, although they do not meet each other regularly as is the case in face-to-face education.

Furthermore, the recorded lectures were designed to offer one way of content delivery in this online education programme. However, the interviewed lecturers reported that these recorded lectures did not enable them to understand, interact or observe students’ reactions. Some lecturers admitted that they knew nothing of their students as they did not meet them regularly. The online lecture was also one of the synchronous interaction channels used in the KFU online education programme to increase the level of interaction within the online learning environment. It offered live discussions among students and instructors. There were three online lectures for each paper, offering online tutoring, counselling and support to students, although these lectures were not useful to most of the interviewed students. More specifically, students acknowledged that technical problems, such as difficulty in accessing Blackboard, were always the main barrier to attending these lectures. STU-6 highlighted that, “The online lectures are not accessible … in the first two semesters I used to join the three online lectures but from the fourth semester the system was not that good.” Teaching staff also observed that these online lectures somehow did not fulfill the intended objectives. Debate and interaction with students were noted to be slow and not productive. LEC-1 made this point clear stating that, “merely a few students who are interested in talking and debating the questions and course matters compared to the actual number of enrolled students. Even at an online lecture, in the best circumstances, 20 students attended.”

In a similar vein, the level of interaction between students and lecturers was not promising even when students were given opportunities to contact their teachers directly by phone or email. The participating students stressed that there was no need to contact teachers because of the ease and clear directions of the courses. Lecturers were always available to receive students’ calls and emails during their office hours, though students rarely contacted them. LEC-3 said, “I note that most of the calls came at the last month.”

In fact, this low degree of communication and interaction between students and their teachers as well as between students themselves was expected and consistent with prior studies. As an example, Alhawiti’s (2011) study shows that faculty members in the KSA might struggle in teaching online courses, especially with the lack of face-to-face interaction
and the difficulty of building relationships with distance students. On the other hand, students in the Middle Eastern and Arabic countries are not well prepared for argumentative activities or expression styles. They prefer to sit in a classroom while the teacher teaches and responds to their enquiries, and thus do not accept an instructional approach that places responsibilities on themselves (Alsunbul, 2002; Gunawardena & LaPointe, 2008; Sultan et al., 2012).

Apart from the low level of interaction observed in this programme, students were able to work, interact and support each other in their own way. Students used informal forums that were created voluntarily by some students, and thereby they were not being supervised by the deanship of e-learning and distance education. These forums as described by the interviewed students were places where they could participate, exchange and reflect on their ideas and thoughts. As an example, STU-3 reported that, “through these forums we know each other, communicate and discuss the lecture’s questions.” Students in these forums demonstrated a high level of interaction and communication that can be associated with the relative high mean (2.2) and standard deviation (0.92) for the scale that measured Student interaction and collaboration, mentioned earlier. Possibly, the absence of actual supervision and the anonymity in these forums promoted their confidence and participation. Harasim (2000) comments on this point stating that in online courses, students might feel more comfortable about challenging their instructors, especially if they can participate anonymously. Interestingly, this result of high interaction among students in these informal domains parallels Al-Saggaf’s (2004) study. It shows that individuals in the KSA are able to benefit from informal online communities and enhance their critical thinking and self-confidence. Therefore, the KFU needs to encourage and motivate student collaboration and communication within its online education. As such, the teacher could moderate and facilitate student discussions in order to enhance student learning (Palloff & Pratt 2003; Cohen 2003).

4.2.2 Objective Two: Creating new qualifications and degrees in sophisticated areas in order to meet the needs of the new knowledge economy.

So far, the online education programme at the KFU offers only a bachelor’s degree and in very popular majors such as Islam, social science, business and Arabic language. These
degrees are not new or exclusive majors being provided through the KFU online programme. Rather, most of the Saudi universities offer these courses, and thus this programme is not offering new qualifications, as this objective suggest. However, one should consider that such an online programme is still in its infancy and has a long way to go. Additionally, those students who were first enrolled in this programme have not yet graduated. Judgment of this objective could not be made at this stage. The outcomes of this programme might be judged in the following years in order to observe whether or not this programme has contributed to enhancing the development and economic progress of the KSA.

Nevertheless, drawing upon the quantitative data, this goal can at least be further explored. A simple descriptive analysis was applied to calculate the mean and standard deviation of two scales found in the student questionnaire: Authentic learning and Active learning. The former was to demonstrate the authenticity of the learning environment and to what extent the online courses exposed the learner to activities that dealt with the real world, while the latter was to show students’ capability to deal with and solve problems. Both mean scores fell in the top positive half on a 5-point scale, which indicated that students perceived their online learning positively for authenticity and the active roles they played in the process of learning (see Table 14).

Table 14

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Authentic learning</strong></td>
<td>551</td>
<td>1.00</td>
<td>5.00</td>
<td>2.2</td>
<td>0.85</td>
</tr>
<tr>
<td><strong>Active learning</strong></td>
<td>551</td>
<td>1.00</td>
<td>5.00</td>
<td>1.8</td>
<td>0.74</td>
</tr>
</tbody>
</table>

Similarly, most of the teaching staff’s responses to the scale that measured Authentic tasks asserted that lessons (Always) involved authentic activities that reflected the way in which the knowledge would be used in a real-life context (see Table 15).

Table 15

Lecturers’ perceptions of tasks authenticity


The learning activities involve tasks and contexts that reflect the way in which the knowledge will be used in real life settings.

<table>
<thead>
<tr>
<th>statement</th>
<th>always</th>
<th></th>
<th>sometimes</th>
<th></th>
<th>never</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The learning activities involve tasks and contexts that reflect the way in which the knowledge will be used in real life settings</td>
<td>23</td>
<td>72</td>
<td>9</td>
<td>28</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The interviews revealed that some students held positive impressions of this programme in terms of enhancing their qualification and skills. Faculty members, also, expressed a high level of optimism and respect for the future of this programme and the professional development it could offer. LEC-5 indicated that, “this programme serves individuals throughout the country … students come from a wide range of professions and experiences with different interests and motivations.” Online education can provide the learners with ready access to a vast amount of information and knowledge (Ally, 2004). It can increase the potential of students’ ability to think and act independently. Peters (2003) indicates that learning with new media can improve a learner’s competency and qualifications.

In the KFU online education programme, however, there is a need to open new degrees in different majors, such as information science and information technology, as well as postgraduate studies. LEC-5 acknowledged that there is a need to expand this programme by including new departments and majors in order to promote adult education and qualifications. In this respect, Alyahya (2011) points out that widening access to online education can enhance and facilitate job performance and satisfaction of employees, and promote the economic growth in the Arabic region. In brief, it can be fairly stated that this objective has not yet been attained. The KSA needs students with degrees and qualifications in several vital majors, including science, engineering, health, information technology and nanotechnology (Abdullah, 2010).

4.2.3 Objective Three: Creating and disseminating knowledge through a robust educational technology infrastructure and raising the cultural, social and scientific level of all citizens.

In the interviews, students considered what they learnt to be interesting, valuable and relevant to society. The content of papers included in this programme seems to be relevant to the real world and useful. STU-10 signalled that “the good thing in this programme is that
we mainly focus on knowledge that is related to our major … while a small proportion is
given to general information.” This programme helped students to construct new knowledge
based on participating and relating their observations to their fellow students (Kanuka &
Anderson, 1998). Lecturers, too, felt confident that the University succeeded in educating
older people by providing them with high quality and equitable opportunities of education.
According to (LEC-5), “We feel proud that we managed to educate older people who
otherwise would not have an opportunity to learn in the past … there are some employed
students who want to develop their qualifications and experience.” This online education
programme enabled students to download and upload files, use the electronic library,
participate in chatting forums and discussion boards, and do their assignments at their
convenience. These features need to be implemented more seriously if the University wants
to expand the knowledge, capabilities and skills of its students. As an example, the use of
the electronic library as an educational tool is very scarce. The interview sessions with both
students and faculty members showed that they are unfamiliar with using the electronic
library. One of the interviewed students (STU-3) asserted that, “I do not know anything
about the electronic library!” Students can complete a degree without needing to use the
library. Most lecturers summarize the content of their papers in a document and upload to
Blackboard, so students can download it and use it as reference for this paper. The KFU
needs to restructure the lesson activities to help its students benefit from the available online
technology in order to develop their skills and knowledge.

A large body of literature promotes online education as an effective approach of educating
people, expanding their knowledge and thereby closing socio-economic gaps between
developing and developed regions (Harasim, 2000; Perraton, 2000). Similarly, Matar et al.
(2011) and Abdelraheem (2006) place more emphasis on the need for e-learning solutions to
narrow the educational divide within the Arab states. In this view, Zakari and Alkhezzi
(2010) demonstrate that online education programmes can play a crucial role in raising the
cultural, scientific and social level of students in the Arab countries. More recently, the
findings of Alhawiti (2011) and Ziyadah (2012) add that online education could give online
teaching staff access to more teaching resources and enhance the quality of education being
offered.
4.2.4 Objective Four: Providing an environment for learners, where all support and resources needed are available.

Student support is a fundamental component in an online learning environment (Simpson, 2002). Student support in online education comprises all kinds of assistance provided by the institution to ensure that facilities and services offered are similar to those offered in traditional education. This should include ensuring that course resources are available and appropriate to the subject matter. Online education typically occurs via reliable access to electronic resources, discussion forums, email queries and adequate instruction in the online learning environment (Husmann & Miller, 2001; Glahn & Gen, 2002; Moore & Kearsley, 2005).

In this respect, it was noted that the deanship of e-learning and distance education has the ability to support all online students who are enrolled in this programme through various electronic services. These include admission and registration affairs, academic advising, library services, and fee payment methods. It is clear that there is no need for a student to physically attend the University campus. One student stated, “all the needed details and instructions are available on the website” (STU-9). The teaching staff also signalled the rich details and instructions found on the website. This website offers several electronic links that facilitate the use of Blackboard, course enrollment and study plans by providing clear guidance. Other support services available include technical support through a free telephone, orientation sessions, and real-time tutorials in virtual classroom via video-conferencing. Along with that support, students are provided with teachers’ office hours, email and phone details to communicate with them directly if they have any enquiries about the subject matters. These issues seem to be critical and need to be addressed when offering online education (Murgatroyd, 2008).

Turning to exploring the effectiveness of teacher support in this programme based on students’ responses to the questionnaire, it was not clear what their attitude was towards the support offered to them. Most respondents scored very close to a neutral area (i.e., 3=sometimes) on a 5-point scale. Overall, the calculated mean and standard deviation for Instructor support were 2.7 and 0.88 respectively (see Table 16). These findings were further explained by some of the interviews. Most respondents showed their satisfaction and
pleasure at having online support and services. They felt that the content and activities of these online papers were well-organized and supported to help them grasp concepts and engage in more critical thinking.

Table 16

*The Mean and Standard Deviation of the measure Instructor support*

<table>
<thead>
<tr>
<th>Instructor support</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>551</td>
<td>1.00</td>
<td>5.00</td>
<td>2.7</td>
<td>0.88</td>
</tr>
</tbody>
</table>

It was noted, however, that students did not ask their teachers for support or assistance, although this was made available to them via various channels (i.e., email and discussion forum). Students did not feel an actual demand to contact their lecturers. As illustrated by STU-4 that “all the lecturers are accessible, though I have not contacted them during three years except one or two times … I feel that all things are clear and I don’t need any support.” Although the supportive structure of course materials is available in this programme, students do not access and try support services. No wonder, then, students were neutral in their attitude as they have no grounds to be satisfied or dissatisfied. It should be noted that distance learners not only need support to help them to understand the subject matter but also to understand themselves and construct personal meanings (Schrum & Benson, 2002; Dillon & Greene, 2003).

However, a few students involved in this programme appeared to be less motivated and discouraged from taking an online course. They mentioned frequent technical problems, low level of interaction with course coordinators, and absence of clear guidelines as the main sources of disappointment and discouragement. For example, students who were studying business administration, particularly at the fifth level, did not have a specific study plan for the next semester. STU-6 explained that, “I have finished the fifth semester but the study plan for next semester is not clear. I tried to clarify this issue with people who are responsible for this programme by sending emails and calling the free number but no response at all”. Support needs to be proactive, prompt and ongoing in order to promote students’ participation in the online environment (Husmann & Miller, 2001; Moore & Kearsley, 2005).
Lecturers’ responses to the questionnaire, on the other hand, showed a high satisfaction in terms of the clarity of direction, expectations and the study plans provided on the website. As represented in Table 17, 75% of the participating teachers agreed that information and expectation of student roles were always clear.

Table 17

Lecturers’ perceptions of the unit information and expectation of student roles

<table>
<thead>
<tr>
<th>Statement</th>
<th>Always</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit information and expectation of student roles are clear.</td>
<td>24</td>
<td>7</td>
<td>1</td>
</tr>
</tbody>
</table>

These findings were confirmed by the interview sessions in which they agreed that all learning materials were clear and thus students did not need support. LEC-1 reported the ease of use and clear directions and requirements in the online courses. In contrast to these views, some of the interviewed students were dissatisfied with the information offered to them at the beginning of each semester. They commented that there is always a delay in providing the course details. STU-10 said, “In this semester, there was three week’s delay in dispatching some papers on Blackboard … this made it extremely difficult to follow up the assignments needed for each paper.”

Another point can be added here in relation to learning materials is the effectiveness of the e-library available to on- and off-campus students. Although faculty members agreed that this library contains the resources needed in all papers, it has not been used throughout this programme. In other words, students have not been referred to the e-library. Ironically, the interviews showed that some students did not hear about it. STU-2 stated, “I have access to the digital library but it hasn’t been mentioned at all.” The role of an e-library in facilitating students’ learning and achievement seems to be obvious (Oblinger & Rush, 2003; Murgatroyd, 2008). The KFU should encourage its students to use additional materials and alternative sources of information to enhance their learning and expand their knowledge.

In short, despite the fact that some of the students who participated in this study were satisfied with the level of support they were receiving, there were quite a few students who
were looking for more assistance and guidance to meet their learning objectives. They need to be guided and familiarized with their actual role in the online learning process. It is imperative for course providers to strengthen the level of support and training available to students in order to increase their enjoyment and further enhance the effectiveness of online education (Murgatroyd, 2008; Palloff & Pratt, 2003; Sun et al., 2008).

4.2.5 Objective Five: Raising awareness among the community about the concept of e-learning and the need to use it to improve the level of education.

The interview sessions showed a high level of support being provided by the deanship of e-learning and distance education at the KFU to advance this objective. It provides students and lecturers with the most suitable and powerful learning environment. Koper (2000) notes that, “given current developments, institutes for higher education in the future must occupy themselves primarily with offering electronic learning environments” (p. 1). In the context of the KSA, as mentioned earlier, the concept of e-learning has not been well considered. In other words, not all Saudi citizens appreciate, use or benefit from these valuable online learning opportunities. One of the respondents (LEC-6) offered this comment: “The concept of distance education appears to be new culture for students, their parents and even the University lecturers … hence we have online training courses that assist students to use Blackboard and give them all the training needed.” All the interviewed teaching staff were pleased to be offering useful electronic content that might help in preparing students for the future or upgrading career qualifications. This finding parallels Alhawiti’s (2011) study that online education has the ability to attract the new generation of students and increase their familiarity with technology.

Learners in this programme were introduced to the concept of e-learning and its influence on their education in various ways. Lecturers encouraged their students to use Blackboard and the Internet to download the resources and lectures, and to interact and communicate with other students. Students who participated in the interviews showed their satisfaction towards these online courses. They particularly appreciated the new opportunities offered by Blackboard that allowed them to access the online materials easily, anytime and anywhere. However, the major problems encountered by students were those related to technical difficulties and the frequent shutdown of Blackboard. These issues were frequently
mentioned by the interviewed students as the main obstacles that hindered them from moving forward technologically. STU-2 stated, “I guess those people who operate this programme are not skillful in IT and thus failures in the Blackboard and Virtual system are high.”

In addition, students’ unfamiliarity with the online courses was a major issue raised by the interviewed lecturers. This unfamiliarity made them unwilling to engage in an online learning environment. There was a general consensus among the interviewed lecturers that students were not well prepared to participate in online learning environments or use the electronic resources available to them. In most cases, they did not utilize the different technological media or tools (e.g., web-based resources or online network) to support their learning and to communicate with teachers. Furthermore, the teaching staff mentioned that students were unwilling to use the Internet for research, seeking information or finding additional resources. As illustrated by LEC-1, “They [students] scarcely read the basic textbook rather than visit the electronic library for additional resources.” It appeared that students were not prepared to respond to or ask their teachers via the available communication channels such as email or online lectures. Although most of the participating students (almost 70%) rated themselves as having more than five years’ experience in using the Internet, this did not motivate them to use the e-learning resources efficiently. LEC-2 mentioned that, “Ironically, some students do not join the forum discussions personally, rather they give the username and password to their relative!” Online learners need to be exposed to the value of online communities in order to promote their participation. Cohen (2003) suggests that, “students need to know how and when to use the various technological features, and they need to see a perceived benefit when using one” (p. 115).

All in all, five objectives were explored in this theme to demonstrate the effectiveness of online education at the KFU. These include the level of interaction within online courses, the level of knowledge, skills and qualifications offered in these courses, the level of support offered to students, and the extent to which the concept of e-learning had been introduced and applied in these courses. The study was able to reach conclusions that some aspects needed to be addressed in order to increase the effectiveness of online courses. Findings from the quantitative and qualitative data showed that interaction and communication among students in this programme were not promising. Teachers’ interventions were also found to play only
a small role in facilitating students’ learning. It was somehow surprising to note these findings, especially with the wide range of communication and interaction domains available for lesson activities. Students and faculty members acknowledged the ease of accessing the online courses, but it appears that they need further familiarity with these online environments because the concept of e-learning is still new for most, if not all, the study participants. Although the KFU had offered a variety of online activities, including tutorial sessions, electronic forums, PowerPoint presentations and online quizzes, it seemed obvious that those students needed encouragement and confidence in order to take advantage of these resources. Further, malfunctions and technical problems occurred frequently in Blackboard negatively affecting the quality of the courses. These challenges were major concerns for most of the participating students. However, some positive signs emerged from the findings, in particular that programme administrators were aware of the need for change and development to enhance the quality of education and help students learn in the best environment possible.

These findings confirm the previous research conducted in the KSA by Alebaikan and Troudi (2010). They found that Saudi students might need additional support and technical skills since they have not experienced online education. More recently, Bendania (2011) indicates that experience, confidence, enjoyment and ICT competency are critical factors that promote students’ intention to use e-learning. Hence, teaching staff would need to help students to navigate the online environment in order to be successful in delivering online education programmes (Harasim, 2000; Hongmei, 2002; Moore & Kearsley, 2005). That is, introducing the learner to the concept of e-learning needs top-quality instruction and a highly motivated faculty. The following section examines five objectives in relation to the quality assurance of online education at the KFU.

4.3 Theme Three: Online education quality assurance

In this theme, five objectives of online education at the KFU are included. These objectives pertain to some aspects that are maintained and applied to ensure the quality of online education programme at the KFU. Each objective will be discussed separately based on the data collected from both students and teaching staff.
4.3.1 Objective One: Increasing the quantity and quality of educational resources available at the University.

In terms of the quantity of resources being used in this programme, it can be assuredly stated there is a wide range of applications and activities available to the teaching staff. Among the interviewed students and faculty members there was no comment on the diversity of these online resources. LEC-6 indicated, “The resources used in this programme, including the electronic library, are effective and satisfy our students.” Furthermore, all the papers included in this programme are supported and delivered via Blackboard as an e-learning management system. The content is organized and delivered in a very standardized way across all course papers, supported with a wide range of web-based resources, such as online lectures, content-related quizzes and discussion forums. These online activities and materials are used across disciplines. This, however, was not preferred by all lecturers involved in this programme. LEC-2 argued that this consistency made online courses less effective than face-to-face education where lecturers could develop and deliver the lesson. Moreover, the interviews with both students and faculty members raised very critical points about the quality of delivery technology used in this programme. To begin with, students’ responses were considerably varied. A large majority described the technical problems, frequent malfunctions and slowdown of the system to be major concerns that contributed to workload and discouragement. They were disappointed by the delays in presenting the lectures on Blackboard and this would prevent them from submitting their assignments on time. STU-1 reported that, “Blackboard is slow with frequent technical problems … sometimes it becomes frustrating and time consuming … we always need to reload the Web page and even when it opens it would be with a failure!” In contrast, a few students did not face any difficulty when using Blackboard. They assumed that technical issues were caused by a weak Internet connection or by downloading too many resources at the same time. STU-3 pointed out that, “My fellows and I had not faced any difficulty when using the Blackboard as we used to download the resources needed in time and without postponing anything … I assume that students who do not download their lectures frequently caused an overload on Blackboard especially at the exam period.”

Turning to the quantitative data, a simple descriptive analysis was applied to two items on the scale that measured Delivery strategies in the staff questionnaire. Specifically,
frequencies and percentages were used to measure faculty members’ perceptions of the reliability of online materials and ease of download.

Table 18

Lecturers’ perceptions of the reliability and accessibility of the online materials

<table>
<thead>
<tr>
<th>Statement</th>
<th>Always f</th>
<th>Always %</th>
<th>Sometimes f</th>
<th>Sometimes %</th>
<th>Never f</th>
<th>Never %</th>
</tr>
</thead>
<tbody>
<tr>
<td>The materials are accurate and error free in their operation across all platforms and browsers.</td>
<td>11</td>
<td>34</td>
<td>19</td>
<td>60</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>The materials download without lengthy delays.</td>
<td>12</td>
<td>37.5</td>
<td>20</td>
<td>62.5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 18 represents the reliability of the technologies used to deliver the materials in this programme and their effectiveness at being free of errors. More than half of the participating lecturers were neutral towards the reliability of the online learning materials and the expected time to download them. Although the positive responses outweighed the negative ones, the interview sessions showed that the KFU should employ delivery strategies and online resources that are reliable and error free and that minimize the download time (Buchanan, 2002; Cavanaugh, 2002). Moreover, faculty members admitted that there have been technical issues and malfunctions, especially during examination days. As mentioned by one of the programme administrators (LEC-5), the KFU’s online programme is not perfect or free from errors, but at least it does not have major technical problems. He said, “Some careless students are exaggerating … we advise them to organize their schedule to study on a regular basis during the year rather than postpone their assignments to the last weeks.” Nevertheless, the KFU needs to address these issues and use the most beneficial and valuable learning resources that attract, satisfy and engage its students in the learning environment (Cavanaugh, 2002).

A further point about the learning resources being used in this programme is the online lectures and their quality and accessibility. Interestingly, all the interviewed students, except one, could not attend any online lectures. The main reasons were technical problems and overload on the system. Some of respondents noted that the University needs to improve its IT system in order to provide an effective online education programme. Another relevant
point came from (STU-7): “One day I joined the online lecture but actually I did not hear anything and could not know whether I was really with my fellow students or not!” No wonder that most of the enrolled students in this programme were disappointed or distracted from the online activities. These findings confirm the previous research conducted in the KSA by Ibrahim et al., (2007). They found that the success of the online education programme at the Arab Open University (AOU) depended on the variety of technology being used to support and ensure the quality of instruction. That is, an advanced media product or the newest technological tool might increase the interactive potential of lesson activities, but they do not necessarily ensure the quality of online education (Kearsley, 1998).

In short, there is a wide range of online resources used by students in this programme, but the quality of their delivery is questioned. In this respect, many researchers document the usefulness of using accurate and error-free resources (Feenberg, 1999; Kearsley, 2002; Murphy, 2008; Huang 2002; Sun et al., 2008). At the same time, these resources need to be supplemented with effective ways of delivery (Harasim, 2000; Bates, 2008).

4.3.2 Objective Two: Supporting the faculty with the right tools for learning management, and assessment.

The collected data showed that the deanship of e-learning and distance education maintained continuous training and support for its staff. Table 19 illustrates that almost all except four of the participating lecturers attended at least one workshop on online education. These workshops covered various aspects, including, technical support, online course development and management, as well as increasing the teachers’ familiarity with technology. The teaching staff observed these training sessions to be essential for teaching online and overcoming lack of knowledge of developing and structuring online resources. One of the respondents (LEC-3) said, “It was not difficult to teach online courses, but these workshops were a vital source to acquire technology-oriented skills necessary for online courses.” This goes hand in hand with the perspective of Dooley and Magill (2002) that faculty members should be offered continuous support and pedagogical training to expand their qualifications and assist them in understanding online learners’ attitudes.
Table 19

Attending distance education workshops

<table>
<thead>
<tr>
<th>Statement</th>
<th>More than two</th>
<th></th>
<th>Twice</th>
<th></th>
<th>Once</th>
<th></th>
<th>Never</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Attending workshops in relation to online education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>28</td>
<td>9</td>
<td>28</td>
<td>10</td>
<td>31.5</td>
<td>4</td>
<td>12.5</td>
</tr>
</tbody>
</table>

Along with this, the University website provides faculty members with all guidance needed for teaching online. LEC-6, a programme administrator, explained that online education has a different setting from the conventional classroom. Online teachers need to use special techniques to achieve successful outcomes, and thus workshops and training courses for faculty members are run throughout the year. However, these were not a compulsory requirement for teaching online. One of the respondents (LEC-1) stressed “It was my second semester and I did not receive any workshop or special program for teaching online courses.” Hongmei (2002) stresses that involving the faculty in designing and developing online courses is a fundamental step, which results in enhancing education quality and promoting their participation in online education.

Although most of the interviewed lecturers enjoyed the experience of teaching online, they reported major changes in their instructional roles as they moved from the traditional classroom to the online learning environment. They frequently mentioned unease in dealing with online activities such as discussion forums and online lectures. A relevant quote comes from LEC-3 articulating that:

I’ve found that it is difficult to teach in distance … in the conventional educational sometimes I can interact with students and use different methods of teaching, whereas in distance education interaction and communication occur less frequently.

This indicates that some of faculty members in the KFU are not well prepared to bridge the distance gap by using the capacity of new technologies offered to them. Namely, the use of the discussion forums as a main source for communication and interaction between students or students and their lecturers is not promising. LEC-1 acknowledged, “Through the discussion forum on Blackboard, I frequently alert the students to contact me and encourage
them to open a debate or post their concerns, but they did not join the discussions.” As this was the case, the teachers were not able to benefit from these communication channels in reaching out their students. They were unable to understand, identify or assess their students properly. Teachers who assess for authenticity need to use different sources to gather information in order to gain a more accurate picture of learning progress and adequately evaluate learners’ achievements (Campbell & Gibson, 2008; Mason, 2008).

Clearly, the deanship of e-learning and distance education at the KFU offered frequent training and support workshops to help faculty members in online education, but this appeared insufficient. It was noted that most of the lecturers needed more support, experience and motivation before leading online courses. These findings are similar to previous studies (Alhawiti, 2011; Albalawi, 2007) that online teachers in the KSA need adequate instructional support when adopting online education. Bates (2009) points out that the short history of online education in the KSA necessitates that most faculty members lack the experience to teach online. Therefore, institutional support, technical training, and release time are needed to expand and upgrade teachers’ knowledge and skills in educational technologies (Dooley & Magill 2002; Wolcott, 2003).

4.3.3 Objective Three: Helping staff to share work schemes, lesson plans and other resources, and to have all electronic resources accessible on demand.

Lecturers involved in this online programme were working in small groups according to their field and teaching subjects. LEC-6 reported, “Each faculty involved in this programme is responsible for developing its online course based on a vision and mission that corresponds to the main objectives of this programme.” They meet prior to the commencement of each semester to discuss, plan and identify all the course materials and activities. Moreover, the use of Blackboard, as an e-learning management system, enabled the lecturers to create, organize and deliver electronic content for their papers. As mentioned by LEC-3, “It is easy to approach and modify the content of online papers in a few clicks.” The use of online examinations also enabled the teacher to manage the learning environment and assess their students through varied sources as they were able to report frequent surveys, quizzes or tests. In addition, the collected quantitative data showed that the participating lecturers were satisfied with layout and presentation of the online materials that
demonstrated a corporate style. This was, in particular, obtained by calculating frequencies and percentages of the item, *The materials use a style that is compatible with university policy and guidelines* included in the Staff questionnaire.

Table 20

**Lecturers’ perceptions of the appropriateness of the corporate style**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Always</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>The materials use a style that is compatible with university policy and guidelines.</td>
<td>22</td>
<td>69</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

As presented in Table 20, almost 70% of teachers’ responses confirmed that the electronic materials used in this programme always use a corporate style that reflected University policy and guidelines. In brief, the deanship of e-learning and distance education at the KFU was successful in building an effective communication network within each department, as acknowledged by the participating lecturers. Further, the programme provided the lecturers with the most suitable and powerful learning environment for creating and delivering interactive multimedia content. However, the collected data did not provide enough information on how each faculty developed or revised its plan, nor was the process for sharing the online resources clear.

**4.3.4 Objective Four: Maintaining the use of appropriate international standards to promote the quality assurance of e-learning.**

The KFU online education programme entirely maintains the national accreditation standards called “The Regulations of Distance Education in the Higher Education Institutions in the KSA”. These regulations were published by the Ministry of Higher Education and the National Centre for E-Learning and Distance Education (N CeDL) in 2011, to guide those institutions intending to institute distance education. It should be noted that one of the main objectives of these regulations is promoting quality assurance of distance tertiary education (Mohe, 2010b).

Furthermore, the KFU endeavours to follow the highest and appropriate international standards. The interviews with the programme administrators revealed that the KFU is cautious, yet keen to structure its programme in line with international standards of
The deanship is currently working with a well-known institution in the USA to accredit this programme. LEC-6 mentioned that “We welcomed some visitors from the UK and US and they are all impressed with our process and technologies.” Apparently, the KFU pays high attention to the accreditation process of its programme, although nothing has been demonstrated in reality so far. This programme has not been yet accredited by any international organization. This could be simply attributed to the relatively short history of this programme. Applying appropriate forms of online education that are used in the developed world could assist developing nations and enhance their educational systems (Evans & Nation, 2003). Partnerships could support the new or weak institutions to offer well-developed online education. This procedure facilitates importing expertise and resources and limits the duplication of cost and effort (Levy, 2003). As such, students can benefit from an enhanced education that online programmes can offer. In essence, by applying international standards, the KFU has responded to previous recommendations made by Alsunbul (2002) and Alkhazim (2003) that having international expertise can improve the performance of an online education institution in the Arabic region. However, this needs to be done with a very careful plan so the transmitted educational programme affirms and acknowledges the educational culture of the local communities (Gunawardena et al., 2003).

4.3.5 Objective Five: Conducting regular research to develop the e-learning system within the University.

The collected data did not offer sufficient information on the nature and research techniques that were applied to develop this programme. Nevertheless, it was clear that the deanship monitors the feedback from students and teachers involved through various options and sources. The database of this programme provides the deanship with nearly 500 reports that trace all online lesson activities and student movement in this programme. These reports are assumed to be a valuable source for programme administrators to judge the quality of the learning environment (“KFU is a base for enhancing the tertiary education”, 2012). This result corresponds with Thorpe’s (2008) and Murphy’s (2008) findings that institutions should adopt internal assessment and quality assurance procedures in order to ensure they are accountable and responsible for the learner academic success.
It is evident from the published literature that external and internal research examining online education at the KFU is scarce. Apparently, students have not been asked to participate in any study since enrolling in this programme. One of the participating students offered this comment: “It is the first time that I have been involved in research … I wanted to participate to raise my concerns” (STU-3). In essence, Thompson (1998) suggests two vital sources of knowledge-gathering that could help institutions to achieve their objectives for online education: maintaining learner-focused research, and using the emerging flexible technologies to find out what support is needed.

In short, the quality assurance of online education at the KFU was the last theme explored in this research. Five objectives were examined about the quality and quantity of online resources, support offered to faculty members, research, and international standards for developing online courses offered in this programme. The results showed that a variety of online tools and materials were used for instruction and lesson delivery. Training and support were available to faculty members to assist them in teaching and designing online courses, but the qualitative data demonstrated that they needed extra pedagogical and technological support. Possibly, this is due to the short history of experiencing online education in the KSA. The main instructional practices fully followed the regional regulations to promote quality assurance of online education. The intention was to develop online courses that addressed the needs of the surrounding community. Course planning and updating were driven by the results of internal evaluations that are supervised by the deanship of e-learning and distance education. Moreover, the data showed the endeavours that were being made to attain international accreditation, but it did not provide enough information on whether an external evaluation or regular research had been applied to ensure the quality of instructional practices.

4.4 Chapter summary

This chapter examined the performance of the online education programme at the KFU according to its institutional objectives from the perspectives of students and teaching staff. The proposed 15 objectives were classified into three main themes, and then compared separately with the data collected from both students and faculty members involved in this
programme. The findings of this study were presented, discussed and compared to relevant literature in accordance to each objective.
Chapter Five: Conclusions and Recommendations

5.0 Introduction

This chapter is divided into five sections. The first section provides an overview of the study, including data collection, sampling and data analysis procedures. The second section presents a summary of the findings. The third section discusses implications and recommendations for practice and areas for further research. Following this, limitations of the study are discussed. The final chapter outlines the study's conclusions.

5.1 Study overview

The use of online technology to support education is being given high attention by the Ministry of Higher Education in the Kingdom of Saudi Arabia (KSA). Many institutions have started providing online education with diverse visions, missions and objectives (Mirza & Al-Abdulkareem, 2011). At present, there are 15 higher education institutions offering e-learning and distance education. For example, the King Faisal University (KFU) has launched an online education programme in which the bulk of learning takes place in an electronic learning environment. It was established in 2009 with a vision grounded in creating an integrated learning environment that employs the latest technologies and applies the highest international standards of excellence and quality (KFU, 2012). The purpose of this study was to examine the extent to which the objectives of this programme have been attained from the perspectives of students and faculty members involved in this programme.

This research was based on a case study design using a mixed-methods approach. The phase of collecting the quantitative data was done first, using two types of questionnaire. The first was the DELES (Walker & Fraser, 2005) instrument to measure students’ satisfaction and enjoyment of the programme, while the second was the ECU’s checklist (Hosie et al., 2005) to explore faculty members’ attitudes to online courses. Because of the relatively large number of students and faculty members involved in this programme, it would have been extremely difficult to invite them all. Instead, the researcher used a convenience sampling
procedure in distributing both instruments. As a result, 551 questionnaires were collected from students, and 32 from faculty members.

The second phase of collecting data was a semi-structured interview conducted with both students and faculty members. In total, there were 16 interview sessions: 10 with students, four with lecturers, and two with programme administrators. The quantitative data were analyzed using the Statistical Package for the Social Sciences (SPSS, v. 20), and the qualitative data were guided by Thomas’s (2006) thematic analysis approach. The findings from these analyses were used jointly to address the research question.

5.2 Summary of findings

In this study, 15 objectives of online education at the KFU were examined. In order to present the findings clearly and logically, the objectives were classified into three themes: accessibility and flexibility in online education; the effectiveness of online education; and quality assurance of online education. Perceptions of both students and faculty members involved in this online education programme were obtained by the study instruments and then compared to the assigned objectives. The findings were discussed and compared to relevant literature in accordance with each objective.

From the perspective of students and faculty members it can be concluded that the KFU is achieving most objectives included in the first theme “Accessible and flexible online education.” They acknowledged that the KFU online education programme provided accessible and flexible learning opportunities for students regardless of age, gender, and personal obligations. The questionnaires completed by the participating students underscored that they came from different backgrounds and contexts. The qualitative data showed that students were offered flexible educational opportunities that did not conflict with their basic responsibilities and roles in society. In addition, it was found that those students who could not access education beyond high school because of circumstances, such as university overcrowding, remote location from universities or personal obligations, were able to continue their education through the KFU programme. Moreover, the interview sessions conducted with students revealed that the cost of these online courses was reasonable. It was found that this programme was very economical, with no need to travel to
the University campus for enrolling or sitting final exams. Female students were also satisfied and showed a favourable attitude to learning from home. Overall, online education programmes have the ability to reach a large number of learners and enable them to achieve a higher degree at their convenience.

However, some issues need to be addressed in relation to the second theme “The effectiveness of online education.” To begin with, technical problems and malfunctions that occurred frequently in Blackboard appeared to be a critical barrier to effective lessons. Perceptions of students and faculty members signaled the uselessness of the discussion forums. The level of interaction between the lecturers and students and between the students themselves was very weak. The KFU offered students clear guidelines and support but it is noted that students needed more familiarity with online environments. In essence, the concept of e-learning is still new for most, if not all, of the study participants and thus they might need further familiarity with these online environments.

In terms of the third theme “Quality assurance of online education” the study suggests that a reasonable level of quality assurance is being applied in this programme. Online courses offered in this programme are supplemented with adequate educational resources. Support was available for faculty members involved in this programme via training workshops that run throughout the academic year to assist them in preparing the online lessons. There is an intention to improve the outcomes of this programme by following the published national standards of online education as perceived from the conducted interviews with programme administrators. Endeavours are being made to achieve international accreditation and acceptance.

5.3 Implications for practice and recommendations

The number of higher education institutions offering online courses is growing gradually in the KSA. This trend requires consideration of the influence of these courses on learning and teaching experiences and educational outcomes. Based on the findings of this study, it becomes evident that the use of online technology in educational practices exposed students and faculty members to new experiences and ways of learning. This may impose a reshaping and retraining on the process of learning and teaching in order to succeed in engaging
students and faculty members in the learning environment (Moore & Kearsley, 2005; Pulkkinen, 2007).

Because most Saudi distance students had not experienced online education prior to their enrolment in this programme, it is recommended that they are adequately familiarized with their new roles and provided with sufficient support and encouragement. They would need to have a voice and an opportunity to evaluate their online learning environment in order to ensure their satisfaction. Obtaining regular feedback from those involved in such a programme is a fundamental step that could help in addressing their concerns and exploring their attitudes towards the learning environment. In this study, interaction and collaborative work in this programme were not treated as an essential activity. The distance gap between students was dominant. This gap had not been bridged by the available online communication channels, such as emails and discussion forums, and thereby the students were not able to take advantage of the full capacity of online education. Students’ self-competency, experiences, technological factors, and social environment need to be considered when offering online education.

One positive aspect to emerge from the findings was the opportunity offered to faculty members at the KFU to attend frequent workshops that equipped them with the skills required for online courses. However, these seemed to be insufficient as the process of interaction and relationship building to help students achieve the best learning was not promising. As noted earlier, online education is and will remain a challenge until teachers build a good understanding of students’ feelings and reactions that occur apart from the learning environment (Palloff & Pratt, 2003).

In this study, faculty members showed a positive attitude towards online courses but they were not able to benefit from opportunities available to them to support learning through Blackboard use or online lectures. The findings suggest that faculty members should be trained with hands-on practice. These practical sessions could be valuable opportunities for them to, on the one hand, improve their technical and pedagogical skills, and on the other hand, enhance the development of online courses. At the same time, they should be compensated and motivated to participate in online course training workshops. Ideally, training sessions could be scheduled at convenient times to increase their participation.
Implications could also be drawn from the findings of the study regarding the ability of online education to widen access to education to a wide range of individuals within the Arabic region, but greater effort is needed in regard to its credibility and validity. There is a need to enhance and promote the reputation of online education in order to give it the opportunity to compete with regular education. A degree obtained through online education is still considered inferior to that obtained via face-to-face education, especially in the KSA in which online education is still in its early stages. Although online education has been accredited by the Saudi Ministry of Higher Education, there is still skepticism about the feasibility of online education. The use of online technology that enables ongoing interaction and synchronous and asynchronous communication is not being appreciated or differentiated from correspondence or print-based education (Alsaleh, 2009). This is especially true if we consider that there were no clear guidelines and rules of online education in the KSA. The regulations that provide laws and policies to support and ensure the quality of online education in the KSA have just been published in 2010. The regulations need time to make an impact on enhancing public esteem of online education.

The findings of this study suggest that a well-structured evaluation of the perspectives of students and lecturers of online course materials and activities has to be mandated for the development of online education. As noted by Cohen (2003), online instructional practices “should be grounded in time-tested and research-based theories of learning to ensure that our students receive the best instruction possible” (p. 116). Feedback obtained from students and faculty members through regular course evaluations has to be used accurately for course design and development.

In view of the findings of this study and conclusions emerging from them, the following recommendations for policy and practice are suggested. First of all, online education programmes in the KSA need to benefit from the establishment of the National Centre of E-learning and Distance Learning (NCeDL). This centre is responsible for arranging ongoing consultation, research and workshops that could add value to the field of e-learning and online education. Although each institution might have particular objectives when designing its online programme, this centre can facilitate a systematic procedure for the instructional and administrative practices that may positively impact on the performance of these programmes. In doing so, online education becomes more consistent across the country in
utilizing similar and appropriate methods of teaching and learning. It could help institutions to save money and effort by following a clear strategy and thereby accelerating the movement towards online education. As this centre has only been operating since 2010, it seems imperative to conduct a study that explores the process of collaboration between online education programmes in the KSA and this centre after a year or two of its operation. As such, it would be possible to test the influence of this centre on the quality of online education and measure the extent to which it has facilitated the use of online technology.

Additional research on investigating the objectives of online education programmes in the KSA is warranted, especially with the rapid expansion of these programmes. Research should focus on their learning outcomes performance and whether or not they meet the expectations of the local community. While the findings from this research were based on a case study approach, there would be great value in exploring the adoption of online education from wider perspectives by including more institutions that offer this form of education. Such research would assess the feasibility of online education, highlight its strengths and weaknesses, and lead to a richer understanding of its practices.

Moreover, collaboration and partnership with other universities that have already adopted online education is needed. Their expertise and assistance would facilitate any improvements or changes required. Experts from countries that offer developed online education should be brought in to help with development. Such expertise is significant in dealing with the emerging difficulties, such as the technical problems and malfunctions that have been encountered in this programme.

Future studies should also focus on the extent to which graduated students from online education programmes could benefit from their degrees in meeting diverse occupational demands. As the majority of students enrolled in these programmes have not yet graduated, it seems critical to conduct future research that determines the impact of online education on economic growth and career and professional development in the KSA. This could be achieved by conducting field research that measures the performance of those students and the satisfaction of employers. Similarly, comparisons of student achievement in traditional education and online education could be made to provide a substantive basis for educational decision makers and further convince them of the quality of this new form of education.
5.4 Limitations of the study

There were several limitations within the scope of this research. To begin with, as this was a case-study approach, the findings were limited to the particular case studied. The research sample was not representative of all students or faculty members who have experienced online courses either at the higher educational institutions in the KSA or at the KFU. Further, out of 67,000 active distance learners enrolled in the KFU online education programme, the researcher merely focused on 5,500 students who were registered at the Alahssa exam centre. This was due to a fixed budget and a very tight time frame of recruiting respondents. Ideally, all those who were studying in this programme could have been invited to participate. Nevertheless, the responses were deemed useable and give insights for online education providers in the country.

While the aim of this study was to examine institutional goals, the researcher was not able to gather conclusive data in relation to some objectives. In other words, some objectives of this online education programme have not been entirely covered by all research instruments. More specifically, data obtained by both questionnaires was not sufficient to show the extent to which the KFU is able to help faculty members to share work schemes for online courses. Similarly, items included in these questionnaires did not expose whether or not the KFU is using appropriate international standards or conducting regular research to promote the quality assurance of this online programme. This suggests that results would be more comprehensive if the researcher had developed questionnaires tailored specifically to this study. The semi-structured interviews conducted with faculty members would have yielded more data if the bureaucratic atmosphere was less dominant. Constraints such as limited time and difficulties in approaching them narrowed the findings from these interviews. Further, the validity and reliability of the questionnaire used to gather faculty members’ responses had not been demonstrated either in this study or in prior research. Finally, one should acknowledge that the process of translating the Arabic institutional objectives into English was challenging. Some of these objectives were written in an ambiguous way and thereby the researcher strived to find the most appropriate English translation.
5.5 Conclusion

In conclusion, the Saudi tertiary system is still in the early stages of using online technology to support educational practices. Saudi higher education institutions need to develop solid foundations and mobilize the commitment and expertise necessary to succeed in using educational technology. Planning an online education programme with a clear vision is a matter that should be given the highest priority. There is a need for a long-term plan for introducing online courses. The purposes of this form of education should be clearly defined to enable institutions to proceed with the process of ensuring quality and planning (Levy, 2003). Educational policymakers should be aware of the requirements of online education, the challenges involved, and above all the ability to change and adapt to these online learning environments. This suggests that they need to be able to increase institutional support and promote research in online education and its effectiveness. The primary focus when offering such courses should be on the needs and demands of the local community. Then institutions could move gradually to meet broader expectations by serving regional and international cohorts of students. This should be done within a time frame that enables frequent examination of the instructional practices. In a nutshell, it will be very interesting to follow and trace the development of online education in the KSA in the coming years.
References


Alshehri, A. M. (2005). Assessing faculty attitudes toward the significant factors for facilitating the implementation of online courses at the Institute of Public Administration in Saudi Arabia. Doctoral dissertation, Mississippi State University, Mississippi.


Levy, S. (2003). Six factors to consider when planning online distance learning programs in higher education. *Online journal of distance learning administration, 6*(1).


The deanship of e-learning and distance education: the King Faisal University is a base for enhancing the tertiary education. (2012, June 17). *Alriyadh Newspaper*.


Appendix A

A map of the Kingdom of Saudi Arabia shows the location of the King Faisal University.
Appendix B

An Arabic version of the institutional objectives of online education program at the

King Faisal University

(KFU, 2012)
Appendix C

(A translated version of the institutional objectives of online education programme at the King Faisal University)

- Making learning more flexible and liberating it from complex constraints so study can be undertaken without temporal or spatial hitches.
- Achieving justice in education and making it a right for all in order to achieve democracy in education, especially in tertiary education, and responding to the growing social demand for this type of education.
- Providing a variety of educational resources to reduce individual differences among learners and support educational institutions by a variety of teaching techniques and interactive media.
- Providing new qualifications that impose new directions to meet the needs of the new economy, known as the knowledge economy. Therefore, the curriculum should be reviewed to keep pace with the knowledge economy.
- Reducing the cost of education and making it accessible to every member of the community, according to his/her abilities.
- Contributing to raising the cultural, social and scientific level of society.
- Facilitating the administration of educational materials, either by preparing these materials and modifying them from time to time or in terms of assessment done electronically.
- Blending technology with educational materials.
- Creating an electronic learning environment that motivates off-campus students and students from all over the Kingdom to study at the university.
- Raising awareness among the community about the concept of e-learning and the need to use it to improve the level of education.
- Developing electronic courses of high quality.
- Providing faculty members and students with training and the necessary technical support to improve their qualifications and performance.
- Increasing the quantity and quality of educational resources available at the university.
- Reducing the cost of educational resources and at the same time improving the learning process.
- Providing resources for faculty members and students at the university and supporting them at the right time and place.
- Enhancing the educational efficiency of e-learning activities and ensuring their quality.
- Providing plans, developing educational materials and organizing appropriate training programs in cooperation with the Departments concerned in order to achieve the objectives of the deanship of e-learning and distance education.
- Increasing the effectiveness of communication between academics and students, among academics themselves, and among students themselves.
- Conducting research and developing systems for e-learning at the university.
- Promoting the use of appropriate international standards in the field of e-learning.
Appendix D

(Approval letter from the Human Ethics Committee at the University of Otago)

Dr B Anderson
College of Education
Division of Humanities
145 Union Street East

30 April 2012

Dear Dr Anderson,

I am again writing to you concerning your proposal entitled “Distance Learning Courses at the University of King Faisal in the Kingdom of Saudi Arabia: A case study”, Ethics Committee reference number 12/101.

Thank you for the letter from Dr Greg Burnett addressing the Committee’s concerns. We are grateful for a copy of the approval letter from King Faisal University, and for assurance they will receive a copy of the results.

On the basis of this response, I am pleased to confirm that the proposal now has full ethical approval to proceed.

Approval is for up to three years from the date of this letter. If this project has not been completed within three years from the date of this letter, re-approval must be requested. If the nature, consent, location, procedures or personnel of your approved application change, please advise me in writing.

Yours sincerely,

Mr Gary Wite
Manager, Academic Committees
Tel: 470 8250
Email: gary.wite@otago.ac.nz

cc: Professor J K Smith, Associate Dean Research, College of Education
Appendix E
(Informed Consent Form from the King Faisal University)

المكتب الإداري / أحمد بن عبد الله الخليفة
 الجامعة العربية- نيويورك

إشارة إلى خطاكم المقدم بشأن إجراء دراسة بحثية لأبحاث مشروع تخرج لدرجة الماجستير حول التعليم عن بعد بجامعة الملك فيصل.

وبعد الإبلاغ على الأمور الخاصة بكم، وجدنا أنه لا مانع لدينا من إجراء الدراسة وعمل مشروع تخرج لدرجة الماجستير حول التعليم عن بعد بجامعة الملك فيصل، شريطة أن يتم التنسيق مع الطلبة وأعضاء هيئة التدريس من قبلكم ودون أن تتحمل الجامعة أو الجامعة أي الالتزامات المالية أو ممكنية مع نسبتيتك في التوفيق والنجاح في دراستكم العليا.

وكيل الجامعة
للدراسات والتطوير والخدمة المجتمع

 أحمد بن عبد الله الخليفة
Appendix F

The Distance Education Learning Environment Survey (DELES)

Section One: Instructor support

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1. If I have an inquiry, the instructor finds time to respond.</td>
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<td>2</td>
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<tr>
<td>2. The instructor helps me identify problem areas in my study.</td>
<td>1</td>
<td>2</td>
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</tr>
<tr>
<td>3. The instructor responds promptly to my questions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tr>
<tr>
<td>4. The instructor gives me valuable feedback on my assignments.</td>
<td>1</td>
<td>2</td>
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<td>5</td>
</tr>
<tr>
<td>5. The instructor adequately addresses my questions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
</tr>
<tr>
<td>6. The instructor encourages my participation.</td>
<td>1</td>
<td>2</td>
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</tr>
<tr>
<td>7. It is easy to contact the instructor.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
</tr>
<tr>
<td>8. The instructor provides me with positive and negative feedback on my work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
</tr>
</tbody>
</table>

Note: 1 = Always; 2= Often; 3= Sometimes; 4 = Seldom; 5 = Never.

Section Two: Student interaction and collaboration

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>9. I work with others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. I relate my work to others’ work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. I share information with other students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. I discuss my ideas with other students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. I collaborate with other students in the class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. Group work is a part of my activities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: 1 = Always; 2= Often; 3= Sometimes; 4 = Seldom; 5 = Never.
### Section Three: Personal relevance

<table>
<thead>
<tr>
<th>In this class …</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. I can relate what I learn to my life outside of university.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. I am able to pursue topics that interest me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. I can connect my studies to my activities outside of class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. I apply my everyday experiences in class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. I link class work to my life outside of university.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20. I learn things about the world outside of university.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
</tr>
<tr>
<td>21. I apply my out-of-class experience.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: 1 = Always; 2= Often; 3= Sometimes; 4 = Seldom; 5 = Never.

### Section Four: Authentic learning

<table>
<thead>
<tr>
<th>In this class …</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</tr>
</thead>
<tbody>
<tr>
<td>22. I study real cases related to the class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23. I use real facts in class activities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24. I work on assignments that deal with real-world information.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25. I work with real examples.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26. I enter the real world of the topic of study.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: 1 = Always; 2= Often; 3= Sometimes; 4 = Seldom; 5 = Never.

### Section Five: Active learning

<table>
<thead>
<tr>
<th>In this class …</th>
<th>1</th>
<th>2</th>
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</thead>
<tbody>
<tr>
<td>27. I explore my own strategies for learning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>28. I seek my own answers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>29. I solve my own problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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</tbody>
</table>

Note: 1 = Always; 2= Often; 3= Sometimes; 4 = Seldom; 5 = Never.
### Section Six: Student autonomy

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</thead>
<tbody>
<tr>
<td>30. I make decisions about my learning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>31. I work during times that I find convenient.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>32. I am in control of my learning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>33. I play an important role in my learning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>34. I approach learning in my own way.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tbody>
</table>

*Note: 1 = Always; 2 = Often; 3 = Sometimes; 4 = Seldom; 5 = Never.*
Appendix G

The Edith Cowan University (ECU) checklists for evaluating online learning in higher education

### Section One: Pedagogy

**Authentic tasks:** The learning activities involve tasks and contexts that reflect the way in which the knowledge will be used in real life settings.

<table>
<thead>
<tr>
<th>Never</th>
<th>Sometimes</th>
<th>Always</th>
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</table>

**Opportunities for collaboration:** The environment encourages and requires students to collaborate to create products that could not be produced individually.

<table>
<thead>
<tr>
<th>Never</th>
<th>Sometimes</th>
<th>Always</th>
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</table>

**Learner-centered environments:** There is a focus on activities that provide degrees of freedom, decision-making reflection and self-regulation.

<table>
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<tr>
<th>Never</th>
<th>Sometimes</th>
<th>Always</th>
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</table>

**Engaging:** The learning activities challenge learners and provide some form of encouragement and motivation to support the engagement.

<table>
<thead>
<tr>
<th>Never</th>
<th>Sometimes</th>
<th>Always</th>
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</table>

**Meaningful assessments:** Authentic and integrated assessment is used to evaluate students’ achievement.

<table>
<thead>
<tr>
<th>Never</th>
<th>Sometimes</th>
<th>Always</th>
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### Section Two: Resources

**Accessibility:** The resources are organized in ways that make them easily accessed and located.

<table>
<thead>
<tr>
<th>Never</th>
<th>Sometimes</th>
<th>Always</th>
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**Currency:** The age of resources is appropriate to the subject matter.

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<tr>
<th>Never</th>
<th>Sometimes</th>
<th>Always</th>
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**Richness:** The resources reflect a rich variety of perspectives.

<table>
<thead>
<tr>
<th>Never</th>
<th>Sometimes</th>
<th>Always</th>
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</table>
**Strong use of the media:** The materials use the various media in appropriate ways.

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<tr>
<th>Never</th>
<th>Sometimes</th>
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**Inclusivity:** The materials demonstrate cultural and gender inclusivity.

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<tr>
<th>Never</th>
<th>Sometimes</th>
<th>Always</th>
</tr>
</thead>
</table>

### Section Three: Delivery strategies

**Reliable and robust interface:** The materials are accurate and error free in their operation across all platforms and browsers.

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<tr>
<th>Never</th>
<th>Sometimes</th>
<th>Always</th>
</tr>
</thead>
</table>

**Clear goals, directions and learning plans:** Unit information and expectation of student roles are clear.

<table>
<thead>
<tr>
<th>Never</th>
<th>Sometimes</th>
<th>Always</th>
</tr>
</thead>
</table>

**Appropriate bandwidth demands:** The materials download without lengthy delays.

<table>
<thead>
<tr>
<th>Never</th>
<th>Sometimes</th>
<th>Always</th>
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</thead>
</table>

**Equity and accessibility:** The unit materials and activities are considerate of students with visual impairment and physical disabilities.

<table>
<thead>
<tr>
<th>Never</th>
<th>Sometimes</th>
<th>Always</th>
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</thead>
</table>

**Appropriate corporate style:** The materials use a style that is compatible with university policy and guidelines.

<table>
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<th>Never</th>
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<th>Always</th>
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</thead>
</table>
### Appendix H

**Student questionnaire (Arabic version)**

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>Male, Female</td>
<td>1</td>
</tr>
<tr>
<td>2. Age</td>
<td>8-10 years, 11-20 years, Older than 20 years</td>
<td>2</td>
</tr>
<tr>
<td>3. Grade</td>
<td>Elementary, Intermediate, Advanced</td>
<td>3</td>
</tr>
<tr>
<td>4. Office</td>
<td>Public, Private</td>
<td>4</td>
</tr>
<tr>
<td>5. Nationality</td>
<td>Saudi, Non-Saudi</td>
<td>5</td>
</tr>
<tr>
<td>6. Do you have a family member who is a student?</td>
<td>Yes, No</td>
<td>6</td>
</tr>
<tr>
<td>7. Do you have access to the internet?</td>
<td>Yes, No</td>
<td>7</td>
</tr>
<tr>
<td>8. How many years have you been using the internet?</td>
<td>Less than 5 years, 5-10 years, More than 10 years</td>
<td>8</td>
</tr>
<tr>
<td>9. How many times a year do you use the internet?</td>
<td>Less than 10 times, 10-20 times, More than 20 times</td>
<td>9</td>
</tr>
</tbody>
</table>
فحيل هذه الجريدة في الفترة من 9 - 42 استنادًا إلى تجريبيات وتقدير واحد فقط تناول ذكرى دعاء عن بعد

الجزء الثاني: دعم المعلم

يحتوي هذا الجزء على سلسلة عامة حول مدى دعم محاصر المادة ومستقبله لك عزيزي الطالب.

<table>
<thead>
<tr>
<th>الحروف</th>
<th>دائماً</th>
<th>أحياناً</th>
<th>أبداً</th>
<th>ندرًا</th>
</tr>
</thead>
<tbody>
<tr>
<td>إذا كان لديك التغيير. الصور الصادرة حول شكل الذات</td>
<td>□</td>
<td>□</td>
<td>□</td>
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</tr>
<tr>
<td>المدارات الصادرة في التخطيط على الشعورات التي أوجهاها</td>
<td>□</td>
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<td>□</td>
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<tr>
<td>إذا كان لديك الدراسات</td>
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<tr>
<td>المدارات الصادرة على أساس تنفيذ شكل الذات</td>
<td>□</td>
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</tr>
<tr>
<td>المدارات الصادرة في معلومات فإن الواجبات التي تأثرها</td>
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</tr>
<tr>
<td>إذا كان لديك المدارات الصادرة مع منظمات معقدة معاناة غير عملية</td>
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<tr>
<td>المدارات الصادرة في أسماء حلي الواجبات التي تأثرها</td>
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</tr>
<tr>
<td>إذا كان لديك المدارات الصحية مع منظمات معقدة معاناة غير عملية</td>
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<td>المدارات الصادرة في أسماء حلي الواجبات التي تأثرها</td>
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<td>إذا كان لديك المدارات الصحية مع منظمات معقدة معاناة غير عملية</td>
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</tbody>
</table>

الجزء الثالث: الانتشار والتفاعل

يحتوي هذا الجزء على أسئلة عامة لتحديد مدى مشاركة الطالب وتفاعله في النشاط المقرر.

<table>
<thead>
<tr>
<th>الحروف</th>
<th>دائماً</th>
<th>أحياناً</th>
<th>أبداً</th>
<th>ندرًا</th>
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</thead>
<tbody>
<tr>
<td>إذا كان لديك تفاعل مع المعلمين في هذا المقرر.</td>
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<tr>
<td>إذا كان لديك تفاعل مع مشاركات متعددة مع مصطلح زمني</td>
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<td>□</td>
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<tr>
<td>إذا كان لديك تفاعل مع مصطلح زمني مع القيم الأخرى.</td>
<td>□</td>
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<tr>
<td>إذا كان لديك تفاعل مع القيم الأخرى مع القيم الأخرى.</td>
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</tbody>
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الجزء الرابع: الإدراك الشخصي

يحتوي هذا الجزء على أسئلة عامة لتحديد مدى ارتباط مهارات الطالب من خبرات وتحفيزها بما يتطلعه في المقرر.

<table>
<thead>
<tr>
<th>الحروف</th>
<th>دائماً</th>
<th>أحياناً</th>
<th>أبداً</th>
<th>ندرًا</th>
</tr>
</thead>
<tbody>
<tr>
<td>إذا استطعت أن تكمل ذلك ما تأثرها وما أثرت خارج الجامعة.</td>
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<tr>
<td>إذا استطعت أن تكمل ذلك ما تأثرها وما أثرت خارج الجامعة.</td>
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</tbody>
</table>
الجزء الخاص: التعلم الحقيقي

يحتوي هذا الجزء على أسلاسل عامة للتحديث المدفوع الذي تم توفيره للطالب لممارسة تعلم حقيقي.

<table>
<thead>
<tr>
<th>الحوار</th>
<th>إجابة</th>
<th>نموذج</th>
<th>عالياً</th>
<th>أحياناً</th>
<th>جداً</th>
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</tbody>
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الجزء الخاص: التعلم التفاعلي

يحتوي هذا الجزء على أسلاسل عامة حول مدى قدرة طلاب على رسم استراتيجيات تعلمهم.

<table>
<thead>
<tr>
<th>الحوار</th>
<th>إجابة</th>
<th>نموذج</th>
<th>عالياً</th>
<th>أحياناً</th>
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</tbody>
</table>

الجزء الخاص: استقلالية الطالب

يحتوي هذا الجزء على أسلاسل عامة للتحديث مدى استقلالية الطالب وحريته أثناء التعلم.

<table>
<thead>
<tr>
<th>الحوار</th>
<th>إجابة</th>
<th>نموذج</th>
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<td>43</td>
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</tr>
</tbody>
</table>

الجزء الأخير (الخياري):

أنظر إلى الطالب... إذا تذكرت أذاك الرغبة للمشاركة في مقابلة شخصية تستمر لمدة 15 دقيقة للحدث. بشكل خاص، تفضل أكثر من القلق الوحيد، أرجو منك كتابة بيانات الإجابات. لا تنسى أنك فيما بعد.

ذكرنا أن الطالب بإشراك كك قد تشمل في هذه عمق لاحقة التعلم عن بعد، وبالتالي الوصول لنتائج معينة ينتمي إلى التعليم. مع ملاحظة أن جميع البيانات سيتم تحليله بسرية شاملة.

الاسم: 

الإملاء: 

ال:date: 137
Appendix I
Faculty members questionnaire (Arabic version)

ثري الاهلين الرحيم

أخي المعاشر ... السلام عليكم ورحمة الله وبركاته وبعد ...

أقدم لك افكار الفكر والتقدير للمشاركة بواقتكم، كما أتمنى قراءة الإرشادات الواردة أدناه بتمعن. هذه إشارة علمية بتوجيه "التعليم عن بعد في جامعة الملك فيصل" ضمن مشروع بحثي لاستكمال درجة الماجستير في جامعة أوتاغو بدولة نيوزلندا.

إن الوقت المقدر تعلمه هو خصم ذاته مع العلم بأن جميع البيانات التي سيتم جمعها ستكون محفوظة لدى الباحث والمشرفين الدراسين، ومع إتمام مشروع البحث سيتم نشره من خلال إشراف الجامعة، فيما يتعلقه بنتائج البحث فإنه قد ينشرها، كما أن هناك الجامعة ملتزمة بخدمة نسبتها 5% من معدل الدراسة الجامعي في حالة عدم الابتعاد عن النظام. لإكمال هذا البحث، يمكنك التواصل معنا، أُخذ عدد من السمات الثلاثة، جامعة أوتاغو، نيوزلندا، من خلال alkahb899@student.otago.ac.nz أو عبر الاتصال 00643 479 5809.

كما أن يمكنك أيضًا التواصل مع أحد المشرفين الدراسين للجامعة.

Dr Bill Anderson: Email: bill.anderson@otago.ac.nz 00643 479 5809 هات: 00643 479 5464 هات: 00643 479 5464
Dr Greg Burnett: Email: greg.burnett@otago.ac.nz 00643 479 5809 هات: 00643 479 5809 هات: 00643 479 5809

ولكن من فائق الفكر والتقدير...
<table>
<thead>
<tr>
<th>العناصر</th>
<th>تعريف</th>
<th>تفاصيل</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>مبادرة تعليمية تشجع التعلم الجماعي، من خلال</td>
<td>استخدام تمارين ومعلومات متعددة</td>
</tr>
<tr>
<td>8</td>
<td>التفاعل بين الطلاب والمحاضر</td>
<td>النشاطات المتنوعة في كل درس</td>
</tr>
<tr>
<td>9</td>
<td>محتوى معلومات متكافئ، على حسب الطلب</td>
<td>تعاملا متكاملًا مع الطلب</td>
</tr>
<tr>
<td>10</td>
<td>التفاعل بين الطلاب والمحاضر</td>
<td>استخدام منهجية وقائمة تمصير الطلاب</td>
</tr>
<tr>
<td>11</td>
<td>تعليم الطلاب بالطريقة النشاطية</td>
<td>استخدام مهارات وقائمة تمصير الطلاب</td>
</tr>
<tr>
<td>12</td>
<td>استخدام الصور لتحسين التعلم</td>
<td>استخدام الصور لتحسين التعلم</td>
</tr>
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<td>13</td>
<td>جمع مصادر التعليم الجديدة عبر الإنترنت</td>
<td>استخدام الإنترنت للتعلم</td>
</tr>
<tr>
<td>14</td>
<td>نشاط التعلم المفرد، يعكس وظيفة التفاهم الفعلي</td>
<td>استخدام التعلم الفردي</td>
</tr>
<tr>
<td>15</td>
<td>المدرسة تعليمية تفاعلية</td>
<td>استخدام التعلم اليدوي</td>
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<tr>
<td>16</td>
<td>التفاعل بين الطلاب والمحاضر</td>
<td>استخدام التعلم النشاطي</td>
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<tr>
<td>17</td>
<td>التفاعل بين الطلاب والمحاضر</td>
<td>استخدام التعلم النشاطي</td>
</tr>
<tr>
<td>18</td>
<td>الأفكار المقدمة من طلاب وتلاميذ، يمكن أن تكون مفيدة</td>
<td>استخدام الأفكار المقدمة من طلاب وتلاميذ</td>
</tr>
<tr>
<td>19</td>
<td>الخطة التعليمية تشمل أنشطة تفاعلية بالدرس بروف مزود</td>
<td>استخدام الأنشطة الفعالة</td>
</tr>
<tr>
<td>20</td>
<td>المدرسة التعليمية تقدم من الأدوات المدرسة الأدوات</td>
<td>استخدام الأدوات المدرسية</td>
</tr>
<tr>
<td>21</td>
<td>التفاعل بين الطلاب والمحاضر</td>
<td>استخدام التعلم النشاطي</td>
</tr>
</tbody>
</table>

المقدمة:-

تحتوي هذه الملاحظة على نقاط مختلفة لتطبيق طريقة التدريس، ومصادر التعليم التي تم استخدامها لتوسيع الفائدة التعليمية.
Appendix J

(Questions for the semi-structured interview with students at the KFU)

1- What is the reason for choosing this online education programme?
2- To what extent are you satisfied with the study in this program?
3- Is there communication and cooperation between students through Blackboard channels?
4- How did you find the procedure of assessment used in this programme?
5- How do you see the roles played by lecturers in the discussion forums?
6- How did you find the communication with the lecturers, especially with the availability of a variety of communication channels?
7- What is your opinion of the online lectures offered in this programme?
8- Do the lecturers activate the electronic library of the university by stimulating students to find some references?
9- Is there a link between the content of these online courses and real life?
10- Have you ever encountered technical problems or malfunctions in Blackboard?
11- Do you find all the information you need and educational resources easily on the Blackboard system?
12- Are you able to make a balance between the study in this programme and other responsibilities?
13- How do you see the level of support and services provided to students?
14- What are the procedures carried out by the university to prepare new students enrolled in this online education programme?
Appendix K

(Questions for the semi-structured interview with the faculty members)

1- How do you see the adoption of distance education at the university using modern technologies?
2- How did find the procedure of assessment used in this programme?
3- How do you evaluate the interaction and cooperation work between students in the discussion forums?
4- How do you motivate and support your students to discuss the subject matters?
5- How did you find the level of communication between students and their teachers, especially with the availability of a variety of communication channels?
6- What is your opinion of the technical problems and malfunctions occur frequently in Blackboard?
7- Are there training courses or workshops that support lecturers to teach online courses?
8- Do you activate the electronic library of the university by stimulating students to find some references?
9- What is your opinion of the online lectures offered in this programme?
10- What is the role of the Deanship of distance learning in facilitating online courses?
11- How do you see the level of support and services provided to students?
12- What is the policy adopted by the university to develop and promote the quality assurance of this programme?
Appendix L

(An Arabic version of the questions used for the semi-structured interview with students)

ما هو سبب اختيارك لبرنامج جامعة الملك فيصل للتعليم المطوريالانتماب؟

ما مدى ارتياحك للدراسة في هذا البرنامج؟

هل هناك تواصل وتعاون بين الطلبة من خلال قوات الطلاب بورده؟

كيف وجدت الطريقة التقييم المعمول بها لكل مقرر دراسي؟

كيف تقيم الأدوار التي يقوم بها المحاضرين في منتديات النقاش؟

كيف وجدت تواصلك مع أساتذة المقرر في ظل وجود وسائل اتصال متنوعة؟

ما هو رأيك بالمحاضرة المباشرة؟

هل يتم تنفيذ المكتبة الإلكترونية من قبل المحاضرين بتحفيز الطلبة للرجوع لبعض المراجع؟

هل هناك ربط بين محتوى المقررات في هذا البرنامج وواقع الحياة؟

هل واجهت مشاكل أو أعطال تقنية بنظام البلايورد؟

هل تجد كل محتاجه من معلومات ومصادر تعليمية بيسر وسهولة على نظام البلاك بورده؟

هل الدراسة بهذا البرنامج تتيح لك القيام بأعمال اليومية دون أي تعارضات؟

كيف تقيم مستوى الدعم والخدمات المتوفرة للطلبة؟

ما هي الإجراءات التي تقوم بها الجامعة لتهيئة الطلبة الملتحقين برامج التعليم المطوريالانتماب؟
Appendix M

(An Arabic version of the questions used for the semi-structured interview with faculty members)

كيف تقيِّم تجربة الجامعة للتعليم عن بعد باستخدام وسائل التقنية الحديثة؟
كيف وجدت الطريقة التقيِّم المعمول بها لكل مقرر دراسي؟
كيف تقيِّم تفاعل وتعاون الطلبة بمنتديات الحوار والنقاش؟
ما هو الدور الذي تقوم به لدعم وتشجيع الطلبة على النقاش؟
كيف وجدت تواصل الطلبة معامِك في ظل وجود وسائل اتصال متنوعة؟
ما هو رأيك بالمشاكل المتكررة والأعطال تقنية بنظام البابورد؟
هل هناك دورات تدريبية أو ورش عمل في التعليم عن بعد لدعم طاقم التدريس بهذا البرنامج؟
هل يتم تفعيل المكتبة الإلكترونية وتحفيز الطلبة للرجوع لبعض المراجع المرتبطة بالمقرر الدراسي؟
ما هو رأيك بالمحاضرة المباشرة؟
ما هو دور عمادة التعليم عن بعد؟
كيف تقيِّم مستوى الدعم والخدمات الموفِّرة للطلبة؟
ما هي السياسة المتبعة لتطوير الأداء وضمان جودة البرنامج؟