AN EXPLORATORY STUDY OF E-LEARNING STAKEHOLDERS' EXPERIENCES OF DEVELOPING, IMPLEMENTING, AND ENHANCING E-COURSES IN ONE SAUDI UNIVERSITY

ZAHRA MOHAMMED M ALQAHTANI

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By

Zahra Mohmmed Alqahtani

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ABSTRACT

The use of e-learning technologies is gaining momentum in all educational institutions of the world, including Saudi universities. In the e-learning context, there is a growing need and concern among Saudi universities to improve and enhance quality assurance for e-learning systems. Practicing quality assurance activities and applying quality standards in e-learning in Saudi universities is thought to reduce the negative viewpoints of some stakeholders and ensure stakeholders' satisfaction and needs.

As a contribution to improving the quality of e-learning method in Saudi universities, the main purpose of this study is to explore and investigate strategies for the development of quality assurance in e-learning in King Khalid University (KKU) in Saudi Arabia, which is considered a good reference university using best and ongoing practices in e-learning systems among Saudi universities. In order to ensure the quality of its e-learning methods, KKU has adopted Quality Matters Standards as a controlling guide for the quality of its blended and full e-course electronic courses. Furthermore, quality assurance can be further improved, if a variety of perspectives are taken into consideration from comprehensive viewpoints of faculty members, administrative staff, and students.

This qualitative research involved the use of different types of interviews, as well as documents that contain data related to e-learning methods in the KKU environment. This exploratory case study was undertaken, from the perspectives of various participants, to understand the phenomenon of quality assurance using an inductive technique. The purposive sample

comprises a total of 30 female and male participants to answer the research questions and provide robust information in terms of how the quality of e-learning development has been met in the KKU environment. The thematic analysis method developed by (Braun & Clarke, 2006) was carried out to analyse the data from the interviews and documents.

The results revealed six main supportive factors which assist in ensuring the quality of e-learning in the KKU environment. Essentially, these factors are: institutional support, faculty member support, evaluation of faculty, quality of e-course design, technology support, and student support, which together have a remarkable positive effect on quality, forming intrinsic columns, connected by bricks leading to quality e-learning. In addition, in the course of improving e-learning quality, KKU encountered various challenges, some of which were overcome while others were not. Generally, Quality Matters standards are considered to have a strong impact on improving faculty members' skills and on the development of high-quality blended and full e-courses. It is, therefore, the recommendations and implications of the present study that quality assurance practices in e-learning methods can be enhanced and that future researches might shed more light on these recommendations.

Keywords: E-learning- Quality Assurance- Quality Matters Standards- Higher education- KKU-supportive factors.

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LIST OF ABBREVIATIONS

QA: Quality Assurance

QE: Quality Enhancement

NCAA: National Commission for Accreditation and Assessment

QMs: Quality Matters Standards

KKU: King Khalid University

NTP: The National Transformation Program

KKU-EC: King Khalid University Learning Certificate

LMS: Learning Management System

NELC: National e-Learning Centre

HE: Higher Education

ICT: Information and Communication Technology

TEL: Technology Enhanced Learning

CD-ROM: Compact Disc Read-Only Memory

CBT: Computer-Based Training

PLATO: Programmed Logic for Automated Teaching Operations

US: United States

UK: United Kingdom

IT: Information Technology

NEPAD: New Partnership for African Development

SITP: School IT Project

MOESR: Ministry of Education and Scientific Research

ISO: International Standards Office

EHEA: European Higher Education Area

ECTS: European Credit Transfer and Accumulation System

HEIs: Higher Education Institutions

TEQSA: The Tertiary Education Quality and Standards Agency

AUQA: Australian University Quality Agency

SHE: Saudi Higher Education

SEU: Saudi Electronic University

IPC: Institutional Planning Committee

ASC: Assessment and Statistical Committee

PSU: Prince Sultan University

QAIC: Quality Assurance & Improvement Committee

HEC: Higher Education Commission

ELQ: E-learning Quality Model

NAHE: National Agency for Higher Education

MOOCs: Massive Open Online Courses

ACODE: Australasian Council on Open Distance and E-Learning

AAOU: Asian Association of Open Universities

BAC: British Accreditation Council

BSI: British Standards Institute

ODLQC: Open and Distance Learning Quality Council

CHEA: Council for Higher Education Accreditation

EMM: E-learning Maturity Model

KKUx : King Khalid University x thing that holds several different values

HEAC: Higher Education Accreditation Commission

CQ: Competence Quotient Model

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This work is dedicated to the souls of my dear parents, my Father Mohmmed and my beloved Mother Zemalah, who passed away during my studying journey without seeing their fruit of efforts and prayers (May Allah have mercy on their souls). I hope both of you see this moment. I miss you both a lot. I also dedicate it to my beloved husband, Nawaf, who has stood beside me since I started studying my master's degree in the U.S., and with whom I have shared both the stressful and the happy times. No words can sufficiently express the extent of my gratitude to him for his endless encouragement and support which definitely eased any difficulties and challenging events I have faced throughout my personal and studying journey.

DECLARATION

This thesis is as a result of my research and has not be been submitted for any other degree in any other university.

1. Introduction

1.1. Background to the study

Today, higher education consists of more than just traditional classroom teaching. With the advancement of technology, universities all over the world are moving towards a significant change in terms of teaching practices, as well as adopting ever-changing technology to provide and manage the educational environment for their students. Most universities recognize the need to perform better by satisfying the needs of their stakeholders. Hence, the concept of e-learning, though being unique with respect to the educational sector, is not unusual in other fields. Management of learning is a concept which is now widely recognized among all stakeholders in the educational environment (including students and teachers). E-learning is a tool which aims to improve individualized learning. Another important aspect of e-learning is that it is managed through learning management systems, which work towards providing efficient learning materials, helping students with their individual learning styles, motivating them to make the most of their learning time, as well as helping them to procure the best resources online to be successful in their assignments and exams. Mostly, universities manage online education through virtual learning platforms like LMS (Learning Management System), Moodle or Blackboard.

What was formerly known as distance learning, has now been transformed into e-learning through the development of e-learning communities, consisting of students and teachers, which are highly interactive where teaching and learning is taking place, not just every day but

potentially every minute of every day. Hence, e-learning is a vast topic in online education which involves high interactional levels between students and teachers. It requires more critical thinking, experimenting and continuous development of teaching materials and social practices, especially in terms of quality assurance. In other words, quality assurance is now an extremely important concept in e-learning. Education is a dynamic, people-centred activity, with complex relationships between various players, such as quality assurance agencies, education providers and consumers. It is currently influenced by such factors as globalisation, stakeholders' needs and expectations, scarcity of resources, rapid technological change and increased calls for quality assurance (Fresen, 2005).

As far as quality assurance is concerned, it had its birth in the famous quality movement in the British and USA industry and commerce sectors at the beginning of the 20th century (Giurgiu & Mester, 2012). Edwards Deming is considered a pioneer in the field of quality management as he was the first to study the effects of variation in managing change in large corporations. In addition, Deming's 14 principles are applied to the field of education. Hence, quality assurance is also applied in traditional learning (Vazzana, Bachmann, & Elfrink, 1997) where face to face interaction with the teacher in the classroom creates various perspectives for every class. As there is no face to face interaction in online classes, with different forums, online discussion and chat used to communicate with others, ensuring quality in e-learning is more complicated and challenging.

It is difficult to deal with unexpected technical issues in e-learning quality, due to the lack of face to face communication and different stakeholders involved in applying this procedure (Alizadeh, Mehran, Koguchi, & Takemura, 2019). Universities are responsible for meeting the expected level of quality in their e-learning systems. Therefore, e-learning has dramatically increased in universities worldwide, which has necessitated the introduction of quality practices to both to facilitate its use, as well as to ensure stakeholders' satisfaction. In this vein, Oliver (2005, p. 183) states that "As more and more universities seek to use e-learning as a mode of delivery for their units and courses, and as more and more they are being held accountable for the quality of the services they provide, the need grows for accepted standards and benchmarks against which performance can be judged".

It is imperative, in terms of managing e-learning quality, to implement a benchmark to ensure good e-course design, therefore some universities have adopted a model or framework to measure and design their online and blended courses which helps faculty members to provide a cohesive online-course. For example, the Quality Matters benchmark was introduced in the USA and used in K-12 and higher education (Puzziferro & Shelton, 2008). This model developed inclusive rubrics which helped faculty members to design their online courses. Many researchers (Al Zumor, 2015; Alizadeh et al., 2019; Hollowell, Brooks, & Anderson, 2017) have demonstrated that QM models have a positive impact on enhancing e-learning quality, but the faculty members need to be involved in the QM training program in order to apply these

standards effectively. In the present study, QM standards was one of the techniques applied by KKU for quality assurance in their blended and full e-courses.

In the context of Saudi universities, there has been an increase in the use of e-learning across academic institutions (Al-Asmari & Khan, 2014). Also, the Saudi Ministry of Education is seeking to fulfil its vision 2030 by enhancing education through improving human sustainability, economic sustainability, and environmental sustainability (Ministry of Education, 2018).

Sustainable development needs further consideration due to the importance of quality assurance practices. Thus, one of the main functions of the National E-learning Centre (NELC) is the implementation of quality standards for the e-learning environment. As a result, some Saudi universities are working with the National E-learning Centre to apply the initiative, sponsored by the Ministry of Higher Education. The NCEL has helped universities to adopt the latest applications in e-learning systems, LMS, and LCMS, and encourages the dissemination of knowledge and skills and the exchange of experiences in this area (Alqahtani,

2011; AlKhalifa, 2010). Furthermore, the quality of designing and measuring online and blended courses needs more attention, especially as the new Saudi Vision 2020-2030 calls for innovation in the higher education sector using ICT. Thus, applying quality standards in e-learning in Saudi universities would decrease the negative viewpoints of some stakeholders and, importantly, result in a successful outcome and ensure stakeholders' satisfaction.

There has been very little research into the quality of e-learning, so this study will contribute to the investigation of support factors which facilitate or impede the development of e-learning quality in higher education, and the strategies that KKU has used in adopting QM standards in both its blended and its full online courses as an example. This research is designed as a case study to examine the phenomenon of e-learning in KKU's environment.

As mentioned earlier, supporting and adopting e-learning in the foundations of advanced education can be complex, and guaranteeing that quality results are attained is considerably more troublesome. This thesis analyses procedures utilized to back the usage of e-learning strategies at King Khalid University in Saudi Arabia, including faculty support staff, students, and administrative staff. These moves are made in accordance with chosen e-learning activities to push mixed or blended learning and the more prominent utilization of engineering in the support for and the delivery of courses. Taking into account in the literature from the wider field of e-learning in advanced education, this study focusses specifically on techniques or strategies used to support and try to guarantee quality results when implementing resources in e-learning activities at KKU. It traces the directing standards behind the University's e-learning advancement and considers current key elements in planning, creating and executing e-learning systems. The importance of steering, assessment and formal reporting, and the estimation of expert, specialized and instructional outline backing are likewise examined.

In more practical terms, this study focuses on analysing the supportive factors and quality standards adopted by the e-learning community at King Khalid University, which has adopted

Quality Matters Standards as a controlling guide for the quality of electronic courses. In addition, it looks at how KKU has ensured e-learning quality by initiating an e-learning certificate program to build and enhance the capability of instructors to teach e-learning courses.

1.2. Significance of the Study

There are clear cultural and social difference between Western countries and Saudi Arabia, and most studies into quality assurance in the e-learning environment, and the creation of new models of designing and evaluating e-courses have been in the context of Western (developed) countries, (Alley & Jansak, 2001; Ehlers & Pawlowski, 2006; Marshall, 2010; Nichols, 2002). In the context of Saudi universities, a number of extensive studies have been conducted on e-learning, all of which examined and investigated its effect, and the challenges faced by students or faculty members in its use (Al-Fahad, 2009; Alebaikan & Troudi, 2010; Alenezi, 2018; Aljaber, 2018; Alqahtani, 2011; Rajab, 2018). Furthermore, several studies have been carried out testing theories of e-learning (Al-Gahtani, 2016; Alharbi & Drew, 2014; Binyamin, Rutter, & Smith, 2017). However, few studies have specifically looked at enhancing the quality of e-learning in Arab and Saudi higher education (Alhathlol, 2017; Mohamed & Nafie, 2018), which may be due to e-learning still being in the early stages of development in many Saudi universities (Al-Harbi, 2011; Al Alhareth, 2013). This study interpretatively explores the practices of e-learning quality from a holistic perspective within one Saudi university (KKU) e-learning environment, which is considered a fertile electronic educational environment

compared with other Saudi universities. KKU uses the e-learning mode holistically, by applying all-inclusive strategies, and makes a considerable effort to train its faculty members in the different stages. Meanwhile, the Quality Matters rubric was adopted early to ensure quality in its blended and full online courses.

As mentioned above, the justification for this study is that it attempts to bring substantive theory to the field of quality assurance in e-learning in terms of the relationship between the application of e-learning strategies and quality assurance practices. Furthermore, regarding the aims of the new Saudi vision 2030, it is hoped that the outcome of the present study will provide the decision makers, particularly in Saudi universities, with a clear picture of the way in which strategies at KKU have developed faculty members' skills in designing online-courses, through professional development training programs, using the international e-learning framework. It will show how this has resulted in greatly improving e-course design, and how KKU has overcome the obstacles by using it on the ground. In addition, it will render significant impressions and value of e-learning culture at KKU.

Finally, the additional body of knowledge of this study will attempt to fill the gap in the existing literature, regarding quality assurance of e-learning generally and on the level of Saudi universities and, importantly, will shed light on the supportive factors that assist any institution in building the quality of e-learning method.

1.3. The Purpose of The Study

This study aims to explore the strategic process of improving the quality of e-learning, and to identify the support factors which influence the development of the use of e-learning systems in the KKU environment, based on the holistic view and experience of stakeholders. In addition, it will look at ways in which such factors can improve and enhance e-learning quality assurance in the KKU e-learning environment. The study has three specific purposes:

- Determine and analyse the factors which help higher education and faculty members to teach and facilitate the high-quality provision of education within e-learning courses.
- Examine strategies that build quality assurance at Saudi universities.
- Explore the impact of the quality assurance culture on the adoption, development and quality enhancement of an e-learning environment.

1.4. Research Questions

The main research question will study the quality assurance system adopted by KKU to evaluate the efficiency of e-learning courses taught at the University.

In order to obtain a deeper understanding of the quality assurance of e-learning and address the research aims, the study will attempt to answer two key questions:

1- From the perspectives of faculty members, students and administration staff, what support factors facilitate or impede the development of e-learning quality among higher education institutions, and in what way do they do so?

2- How has the University developed quality assurance in its online courses?

As the development of quality assurance in e-learning at King Khalid University (KKU) is a complex and divergent process, it is essential to find a way to study the strategies of this process based on the questions and aims of research that can determine and analyse how these factors impact on the quality assurance and quality enhancement of an e-learning environment from the perspectives of faculty members, administrative staff, and students, along with their ongoing practices of using e-learning. In addition, the research questions and objectives explore how KKU adopted the Quality Matters Standards model and gradually trained its faculty members and administrative staff, as a guidance for designing the blended and full e-course electronic courses.

1.5. Organisation of The Thesis

This study is divided into six chapters, as follows:

Chapter 1- Introduction: This chapter introduces the topic of the study and provides a background in order to discuss the area of research. Moreover, the research purposes and significant research questions are also highlighted in this chapter. The significance of the research, as identified by the researcher, as well as the purpose, route map, and a short summary of the research are also provided.

Chapter 2- Literature Review: This chapter highlights similar, previously conducted studies and research, with the aim of studying and analyzing the field, in order to enhance the understanding of the topic and to acquire better outcomes for this study. The researcher has collected these previous studies and researches from various authentic and reliable databases, using the internet, as well as hardcopy books as the main source of searching throughout the study.

Chapter 3- Methodology: In this chapter, the chosen methodology used to acquire the required data to meet the research requirements is explained. Selection of the appropriate research methodology is a critical part of the study. This chapter will further outline the selected research philosophy, approach, strategy, data collection method, data analysis technique, selected sampling method, participants of the study, role of the researcher, and other significant ethical considerations.

Chapter 4- Results: In this chapter the findings of the study are interpreted (emergent themes with the original quotations from the data.

Chapter 5- Analysis and Discussion: This chapter provides an extensive discussion of the findings, in relation to the previous findings in the field so as to recontextualise the study and its contribution to the literature.

Chapter 6- Conclusion and Recommendations: This chapter provides a summary of the current research, with recommendations for further studies in the field of e-learning.

2. CONCEPTUAL FRAMEWORK OF THE STUDY

2.1. Chapter overview

This chapter provides details of the conceptual framework of the thesis. The conceptual framework is organized into three main sections and each section encompasses interrelated themes to study the main research objective and questions of the thesis. First section is related to e-learning as a concept and obstacles in the implementation of e-learning, the second section is about the quality as a concept and quality assurance and quality enhancement generally, in particular, in the Higher Education (HE) sector. The third section integrates the concept of quality assurance in e-learning environment, in particular, in the higher education realm. Third section is the unique selling proposition of the thesis. The third section sets out the influence of e-learning quality and its associated multiple factors. The section also discusses how different researchers and organizations attempt to define e-learning through the analysis of such factors like quality pedagogy and related quality assurance endeavours. Finally, quality of e-learning in more advanced countries and Middle East countries have been examined to compare between their practice in ensuring the high quality in e-learning.

2.2. E-Learning.

2.2.1. E-Learning definitions

With the advancement of technology, education sector including schools and universities all over the world are undergoing significant changes in terms of teaching practices. The education

sector has started adopting the ever-changing technology for providing and managing educational environments to their students. E-learning is conceived as one of the tools emerged from the information and communication technology (ICT) and it has been incorporated in many university programs around the globe, in particular, to enhance the learning of the distant learner (Farid et al., 2015).

From a definitional perspective, there is no universal and comprehensive definition of e-learning in the existing literature (Farid et al., 2015; Lee, Yoon, & Lee, 2009). Although e-learning is being used in few instances as a synonym for distance learning (Alarifi, 2015) in the literature. However, e-learning is more than that. E-learning does not only pertain to the use of technology in the learning processes; but it is much broader in its scope. A profusion of terms has been created to describe the use of ICT for learning purposes, including computer-assisted learning, web-based learning, technology enhanced learning (TEL) and online-learning. Online learning, TEL and distance learning often interfere or overlap with each other (Moore, Dickson-Deane, & Galyen, 2011). Furthermore, virtual learning and distributed learning terms are also used to describe e-learning (Pelet, 2013).

Variations exist in the definitions used by universities as well. For example, the University of Catalonia describes e-learning as "a form of training and learning which can be part or all of an educational model in which it is used which uses media and electronic devices to facilitate access, to promote the development and improve the quality of education and training' (Gedeon & Khalil, 2015, p. 325) Similarly, the Saudi Electronic University, providing electronic

educational support to students within the campus, defines e-learning as "the recruitment of techniques and application of computing and formation of networks and others technologies in support of the educational process that takes place in traditional learning environment that are based on the existence of learners in the same place and time (Al-Hojailan, 2013, p. 30).

In line with this, European Centre for the Development of Vocational Training defines e-learning as "learning that is supported by information and communication technologies…..may encompass multiple formats and hybrid methodologies, in particular, the use of software, Internet, Compact Disc Read-Only Memory (CD-ROM), online learning or any other electronic and interactive media" (Vladinova, Minchev, & Stefanov, 2003, p. 1). Clark and Mayer (2016) have defined e-learning as "instructions and information delivered on or through a digital device (such as computers, laptops, smart phones and others) with the intention to support learning". Use of modern technologies related to computers and the Internet make learning cost and time efficient, and effective. Nevertheless, there are various definitions and perspectives of e-learning. However, I will use the following definition of e-learning in the study:

> "*The training process, of intentional or unintentional nature, aimed at the acquisition of a number of competencies and skills in a social context, developed in a technological ecosystem in which different profiles of users share content, activities and experiences and interact in situations of formal learning: it must be supervised by teaching actors whose activities contribute to ensure the*

> *quality of all the factors involved*'' (Garcia, Penalvo & Seoane Pardo, 2015 as cited in (Martínez, Durães, & Lucena, 2016, p. 297).

The main reason behind using above definition is that the main unit of analysis of the thesis is exploring and understanding quality assurance of e-learning in the King Khalid University (KKU) from the faculty perspectives. KKU integrated a three-level strategy to implement and manage e-learning: the first level is supportive e-learning, the second level is blended learning and the third level is complete e-learning (Al Zumor, Al Refaai, Eddin, & Al-Rahman, 2013). The purpose is to integrate the process with the training and blending with traditional learning systems and processes; and gradually transiting to complete e-learning environment. The system not only involves ICT tools but also a self-sustaining eco-system where quality interactions take place between students and educators.

2.2.2. Types of e-learning systems

E-learning takes place in three forms namely asynchronous, synchronous and blended. Asynchronous is also called student oriented and usually involves self-paced learning. In this type of e-learning the learner and the teacher are not online at same time. Asynchronous e-learning may use technologies and tools such as emails, blogs, discussion forums, eBooks CDs, DVDs, etc. Learners may learn at any time, download documents, and chat with teachers and also with co-learners (Fallon & Brown, 2016). Synchronous e-learning is real-time learning. In synchronous learning, the learners and the teacher are online and interact at the same time from

different locations. Blended e-learning is a mix of synchronous and asynchronous learning. This kind of training combines aspects of online and face-to-face instruction, so the course materials and explanations are shared between traditional learning method and e-learning method in the classroom setting (Van Thinh, 2016). For example, using technologies to deliver the lectures (PowerPoint slides) and videos to enhance learning.

2.2.3. The history of e-learning

Although the content matter and context of e-learning may be new, its principles date back to the 19th century (Jayanthi, 2017). Before even the internet services existed, distance learning was there to provide the students with education in different fields. In the 1840′s Isaac Pitman taught his pupils shorthand via mail correspondence. Pitman was sent completed assignments by mail and he would then send his students more work to be finished using the same system to improve their writing skills. In 1924, the first testing machine was invented. This device allowed students to test themselves. Then, in 1954, BF Skinner invented the "teaching machine", which allowed schools to administer programmed instruction by giving students different questions to answer.

As the Canadian Heritage Information Network sets out in their history of e-learning, points of interest for e-learning include the utilization of movies for armed force trainings in the 1940s (Seale, 2013). It was not until 1960, however, that the first computer-based training program was introduced to the world. This computer-based training (CBT) program (was known as

Programmed Logic for Automated Teaching Operations (PLATO)-. It was initially designed for students attending the University of Illinois, but ended up being used in schools throughout the area (Jayanthi, 2017). Modified content and more inventive instructional movies were utilized for showing and adapting as a part of the 1960s. Instructive and classroom TVs and in addition tapes got to be new learning conveyance routines in the 1980s (Moore & Kearsley, 2011).

These days, Internet advances give more prominent backing to learning. It is evident that the rise of e-learning was accompanied the headway of advances and accelerated by the approach of the World Wide Web (WWW or the Web) in the 1990s. The term "e-learning" has been in use since 1999. The terminology was used for the first time at a CBT systems seminar.

2.2.4. Purposes and pros and cons of e-Learning

According to Bates (1995) four main purposes could be achieved using e-learning in the education sector:

1. To improve access to education and training
2. To improve the quality of learning
3. To reduce the costs of education
4. To improve the cost-effectiveness of education

The advantages of e-learning have been documented by a number of researchers (Al-Qahtani & Higgins, 2013; Banday, Ahmed, & Jan, 2014; Chelladural & Pitchammal, 2016; Gaebel,

Kupriyanova, Morais, & Colucci, 2014; Jayanthi, 2017; Koch, 2014). There are many advantages, especially flexibility and accessibility to learning. Both learners and instructors can access and exchange the knowledge or the content of course anywhere at any time without physical presence, especially in asynchronous e-learning mode. E-learning provides various resources to learners, for example, lecture notes, videos, cases, simulations and e-books, etc. Other advantages are mentioned below:

Individual learning: e-learning provides self-learning environment so the learners can learn without instructors and going to institutions. In this way, learners can concentrate on the areas of learning they need to study and focus on regarding their goals.

Low cost: e-learning saves the cost of education including travel expenses and physical resources costs. Similarly, it saves costs for the education institution as well for example, costs related to buildings, construction and others.

Interaction facilities: e-learning enable peers and instructor engages and interact through a variety of environments such as Learning Management System (LMS) or discussion forum.

Elimination of geographical barriers: e-learning is basically a flexible approach for students as well as teachers who live too far away from universities or live in flung areas as well as those who have family and job responsibilities.

In spite of the advantages of the mode of e-learning in higher education, it also has some disadvantages which have been identified by a number of studies (Hameed, Badii, & Cullen, 2008; Manikandan, 2016; Sivaranjani & Prakash; Subramanian, 2016). For example:

Lack of sociability: in online classes, face to face interaction is missing which causes isolation and lack of face to face interaction between the instructor and the student, hampering the social processes of learning.

Technical issues: some institutions are not ready to use e-learning method effectively due to technical problems including absence of equipment, weak internet services, and defective software programs.

Effects on health: e-learning adversely effects the eyesight and some other parts of the body such as bad posture. The learner and instructors become physically inactive.

Required knowledge and skills: learners and instructors should have the competence, skills, and knowledge and theses can be achieved through development training program.

Plagiarism: e-learning may also probably be misled to piracy and plagiarism, predisposed by inadequate selection skills, as well as the ease of copy and paste.

It is significant to harness the positive aspects of e-learning and to mitigate the negative aspects in an approach which expressly tries to incorporate the advantages and avoid the disadvantages (Al-Qahtani & Higgins, 2013).

2.2.5. Obstacles hindering the adoption and implementation of e-learning in developing countries

Different nations and countries have allocated significant portion of their budgets to ICT and are expanding their research strength at a rate considerably quicker than the United States (US), which was an unequalled pioneer in ICT. The ICT industry delivered 25 % of U.S. economic growth from 1995- 2007. ICT industries also provided 3,535,000 jobs with full time employment compensation averaging $ 107,229, which is 80.6% higher than the national average. However, now the number of US ICT companies have fallen in the top or main 250 global ICT companies. Similarly, ICT income development in different nations has expanded a great deal more significantly: China (315%), Finland (101%), Germany (91%), India (473%) as compared to US (70%). In an article published in 2009, the National Academy of Sciences reported that there has been sharp decline in the federal investment in research and development related to Information Technology (IT) when compared with investment allocation with biomedical sciences in the US.

The Economic Commission for Africa has indicated that the ability to access and use information is no longer a luxury, but a necessity for development. Although the developed nations have been enjoying the fruits of technology for many decades now, whist some of the developing countries are not enjoying the advantages due to certain obstacles. These obstacles include inadequate financial support for purchasing of the technology, lack of training for teaching practitioners and inadequate motivation for teachers to adopt ICT and e-learning as teaching tools. According to New Partnership for African Development (NEPAD) 55% of students within the continent had no experience at all in using a computer. Some computer

skills like, bookkeeping, spreadsheets, word processors are in high demand in Nigeria. Therefore, teaching and learning these skills is an important matter for teachers and learners in Nigeria. In this technology-driven age, ICT competence is the key to survival. Organizations are spending much on training and re-training their employees to increase their knowledge of computers and other ICT facilities (Adomi Esharenana, 2006).

As there are opportunities in the adoption of ICT in higher education, so are there some obstacles as well. Amiri, Hashemi, and Abbasi (2014) have created categories of such obstacles. According to them there are four kinds of obstacles, which are economic, structural, cultural, and human obstacles. See Table 2.1.

Table 2.1. Obstacles in the adoption of ICT in HE sector.

Economic	Structural	Cultural	Human
High expenses and expenditures to develop electronic education or systems in university	Unsuitable planning to develop ICT	Belief in fragmentation due to use of modern technology	Little attention to educational needs
Low budget to develop ICT facilities and buy hardware and tools	Centralizing country management structure	Low attention to cultural context to develop ICT	Resistance of faculty members to new technology
High expenses/costs related to the use of internet in the country	Top managers unsuitable Support of modern technology	Media low activities to use ICT	Low attention of educational software and hardware designer to learners' needs
	The traditional belief of faculty members about use of modern technology or reluctance of faculty members to use modern technologies	Not being cultural use of modern technology in universities	Shortages of specialists in Universities to develop ICT

Source: Amiri, Hashemi, & Abbasi (2014)

Similarly**,** the Republic of Mauritius launched ICT as a subject in 2003 in primary schools under the School IT Project (SITP) under the flagship of the educational reform (Ministry of Education and Scientific Research [MOESR], 2002). Under the program, teachers were supposed to complete an initial training at the Mauritius Institute of Education followed by their succeeding posting in all the primary schools throughout the country (Jhurree et al., 2004). However, the project was not very successful because there were no computers in labs due to shortage of funding and budget allocation for the computers and ICT related activities. Whereas, the developing countries lack the funding necessary for installing and using ICT technologies, USA is also witnessing a decrease in research funding for basic research in ICT.

Keeping in view the initial lack of success of the developing countries**,** World Links was introduced- a project initiated by World Bank in 1997. This project was launched to support developing countries bridge the "digital and knowledge" gap. It also authorizes the youth, and provides many exciting lessons (Hawkins, 2002). Despite the efforts of HE to inculcate technology into the traditional learning environment, many challenges are yet to be overcome. It has been well documented that faculty in HE needs training in order to use technologies and develop e-courses.

There is a dearth of literature on the impact of having an e-learning framework, its strategies and the effect it has on the development of academic staff in terms of transformational pedagogy. E-learning frameworks are formally documented tools, models and approaches to

e-learning development that seek to improve the development experiences for (academic) staff. Staff do not usually make the best use of the technologies or only place value on those technologies which they regard as relevant to their academic practices (Thomson, 2016).

Jones (2004) views two levels of challenges and obstacles in the process of e-learning: the individual level and the institutional level. The individual level pertains to lack of confidence, lack of time and resistance to change, while the institutional level is marked by less training and a lack of access to resources.

One of the challenges for e-instructors is being able to use technology effectively in their courses. An e-instructor has to perform the dual task of designing a course while looking into any obstacles that technological problems may create. Some research has shown that many instructors lack the ICT skills needed to deliver their courses. In addition, recent research has observed that young faculty use ICT more than old faculty members because some older educators believe that traditional methods of education have better efficacy and they do not want to spend their time learning (Amiri et al., 2014).

One major factor perceived by faculty as a barrier is demographic factors namely age and gender. Faculty whose age is above 45 are not motivated to employ e-learning (Al-Sarrani, 2010), even gender has been considered to be a hindrance. Studies have revealed that female faculty members are more positive about their e-learning experiences as compared to their male counterparts (Wong & Atan, 2007). Conversely, one study indicates positive perception in both genders (Qudais, Al-Adhaileh, & Al-Omari, 2010).However, the reluctant attitude towards e-

learning is not necessarily related to age, or gender but to a combination of factors, including technical competencies and exposure to e-learning as well (Alenezi, 2012).

2.3. Quality assurance:

2.3.1. The Concept of Quality in HE

Like the definition of e-learning, universal and uniform definitions of quality parameters in the HE sector is also impossible (Elassy, 2015; Harvey & Green, 1993; Vlăsceanu, Grünberg, & Pârlea, 2004). Quality is not a linear process which can be achieved at one instance, rather it is a continuous process (Elassy, 2015; Harvey & Green, 1993; Vlăsceanu et al., 2004). Although quality is concerned with conceptions like measuring quality, initiating analogous principles, guaranteeing tools for implementing high quality programs, yet they do not elucidate the concept (Saarinen, 2005). The concept of quality is difficult to encapsulate, especially when universities have all the freedom to create their own missions and visions. Quality in its usual sense is perceived as a construct which could be measured against a general standard. However, there exist no common standards in universities. Hence, concepts about quality oscillate between quality as perfection to quality as value for money, quality as customer satisfaction, quality as fitness for purpose, and quality as transformation (SAUVCA 2002). The International Standards Office (ISO) is helping institutions in deciding factors for enhancing quality. Depending on the definition of quality that institutions choose, it basically refers to quality processes like inputs, outputs and learning outcomes. Institutions must have a

mechanism to evaluate how these processes are meeting the expectation of the major stakeholders.

One of the perspectives of quality and its dimension as perceived by Harvey and Green (1993) is that quality is exceptional, perfect, consistent, transformative and having value for money. Harvey and Green (1993) opined that when the expectations of stakeholders (students, employers and parents) are met, learning is viewed as fit for purpose and of high quality. Fitness of purpose is very critical in this whole process which means the overall relevance of the organizational goals in the larger socio-economic environments of the country. If the organization is able to deliver to the society at large, then it would be considered possessing quality. The purpose is defined by the institution, and quality assurance bodies. Since higher education is very diverse in terms of field and program, a wide range of factors have to be measured to attain quality. These factors pertain to the competence of faculty, efficiency of admission processes and standards, the effectiveness of learning environment, the rate and prospects of employability, the quality of infrastructure and the strength of leadership.

Given the dissonance between stakeholders about conception of quality, Harvey and Green (1993) have attempted to focus on commonalities. The concept of stakeholders means "those who have an interest in, an impact on, or are users of" (Shanahan & Gerber, 2004). Two significant stakeholders in the HE are the students and the faculty. The students perceive quality to be the return on their investment. Faculty, on the other hand perceives it to be related to scholarly excellence. Anderson (2006) pointed that academics drew on notions of quality as

understood within traditional academic discourses of excellence in scholarly endeavour. For the academics, assuring quality involved resisting Quality Assurance (QA) mechanisms because they believed that QA mechanisms imposed an additional workload burden but failed to assure quality in a meaningful way (Elassy, 2015).

2.3.2. Quality Assurance (QA) in HE and the history of QA in HE

Quality assurance is "the planned and systematic activities implemented in a quality system so that quality requirements for a product or service will be fulfilled" (American Society for Quality, 2011). Quality assurance and quality management terms are used interchangeably most of the times. However, Vlăsceanu et al. (2004) contend that quality assurance is a more holistic concept than quality management which covers supervision evaluation, control, progress and culture. Hence, quality assurance is a premeditated and an organized reassessment exercise carried out by an institution or program to establish whether the adequate values of education, erudition and infrastructure have been designed, and maintained routinely. At the top of these standards are the faculty whose proficiency is a decisive factor in achieving quality education and services for the institution. The concept of quality assurance is equivalent to the traditional practices of inspection models in schools where outside inspectors would come and inspect the system. Also, quality assurance is similar to inspection in this regard that it also employs external auditors to evaluate the institutional processes. External auditors and evaluators ensure credibility of the processes and systems.

The concept and practices of quality assurance have been in existence since the industrial age, in which the mass production of different goods required that there must be some method in place for checking that the each of the goods produced was fit for public consumption (Dill, 2010). Edwards Deming is considered pioneer in the field of quality management as he was the first one to study the effects of variation in managing change in large corporations. Deming created 14 principles which are being applied as well to the field of education as well (Sallis, 2014). However, it was only during the latter half of the 20th century that this concept and its practice found its way to the operation of HE institutions. A number of advanced countries have adopted the quality assurance in their higher education system.

In the US, the first accrediting institution was established in the 1960's, and was an organization that consisted of different, well-respected, post-secondary institutions that developed a process of peer evaluation (NAPCIS, 2012) In Europe, the process of quality management began with the Bologna reform. It is the process of creating the European Higher Education Area (EHEA) and is based on cooperation between ministries, higher education institutions, students and employees from 46 countries, with the participation of international organizations (Kohont & Bergoč, 2015). The Bologna Declaration is believed to create a unified community by contributing accepted and analogous educational levels. The first level is of three years and the second is that of the master's degree and the last is the Doctor of Philosophy degree (PhD). Another common factor among higher education institutions in

Europe is the credit system, like European Credit Transfer and Accumulation System (ECTS). This system affords students credit even outside national qualifications frameworks.

2.3.3. Quality assurance practices

Two prominent methods for quality assurance are internal and external quality assurance. Internal quality assurance refers to a system of monitoring, evaluating, and enhancing quality through internal mechanisms established by the institution. In contrast, external quality assurance refers to the systems and practices established and conducted by a legitimate approved body that seeks to validate the quality of a college or university (Porter, 2015). The following section provides more details of these methods:

2.3.3.1. Internal Quality Assurance

Internal quality assurance relates to the "intra-institutional practices in view of monitoring and improving the quality of higher education" (Sabio & Junio-Sabio, 2014, p. 38). The internal quality assurance practices are inspired by the mission and vision statement of the university and the adoption of the relevant quality assurance model. Hence, the internal quality assurance processes will diverge from organization to organization. However, some common features of the internal quality assurance processes are data collection and evaluation systems. Both these processes are related to the following factors:(a) systems of governance, (b) management and administration, (c) curriculum, (d), quality of staff, (e) teaching and learning, (f) resources, and (g) student support (Al Hassanawi, 2010; Anderson et al., 2009, as cited in Porter, 2015). Self-

assessment exercises are also internal quality practices are also which help the institutions and their employees feel powerful and in control. They can readily assess their performance without feeling any necessity from the external environment.

2.3.3.2. External Quality Assurance

External quality assurance pertains to the "inter- or supra-institutional schemes of assuring the quality of higher education institutions and programmes" (Van Damme, 2004, p. 129). Bodies with legitimate status and authorize power such as regional accrediting bodies, state departments of education, or program accreditation bodies carry out external QA processes. In higher education, the aim of the external review process is to examine HEIs for quality assurance and quality enhancement. The review process is conducted at various stages through start-up licensure, accreditation, re-affirmation of accreditation, and program approval. These processes include five main characteristics of external quality assurance are identified: (a) self-study, (b) peer-review, (c) site visit, (d) judgment by external body, and (e) continuous monitoring (Eaton, 2008, Parker, 2012). External QA processes tend to work more effectively when the external agency operates as a developmental body and as such encourage HEIs to strengthen their internal QA processes (Chalmers & Johnston, 2012, as cited in Porter, 2015).

2.3.4. Approaches of quality assurance in HE field

There are three approaches to quality assurance. These are accreditation, assessment and audit. Some higher education systems implemented one or more of these approaches (Kahsay, 2012).

This following table (2.2) shows various approaches applied in different countries, including Saudi Arabi higher education.

Table 2.2. Quality Assurance approaches in various countries.

Country	Approaches	Quality Assurance
United Kingdom (UK)	Institutional quality Audit	UK witnessed the emergence of quality movement in 1992 (Maguad, 2006). Also, certain councils were launched for England, Scotland, and Wales respectively. These councils were appointed to be responsible for higher education institutions in their domain. Nevertheless, in 1997 these councils were closed, and a new structure was put in their place. Hence, the quality assurance agency was formed which follows the peer-estimation process. Institutional quality audit is the main method to quality assurance in the UK, supported by the Quality Assurance Agency, an independent body entrusted with monitoring and advising on standards and quality in UK higher education,. Both quality audit and performance assessment are applied to evaluate and ensure these universities and colleges are reaching the level of an acceptable quality by providing higher education and qualification award. In order to enhance quality, each institution has internal quality assurance system. The main elements adopted to quality includes the assessment of students and the procedures for the design, approval, monitoring and review of programs.
US	Accreditation	The formal quality assurance system in the US involves accreditation and intra-institutional processes. The first accrediting body was founded in 1960s. It was made up of diverse, well-grounded, tertiary institutions which inculcated a process of peer valuation (NAPCIS, 2012). In the US, accreditation is a voluntary, peer-review process conducted by non-governmental organizations, usually associations of educational institutions or professional societies (Prados, Peterson, & Lattuca, 2005) such as, Council for Higher Education Accreditation. Even though there is a federal department

		of education, it is not intended to function in such a capacity over higher education (Urofsky, 2013). Accreditation contains two methods: the first is institutional accreditation attempts to assess the general operation of a university from a widely viewpoint. The second is specialized accreditation which concentrates in detail on programs that plan graduates for the occupations (Prados et al., 2005).
Australia	Institutional quality Audit	University Quality Agency (AUQA) was instituted both at the state and national governments' level in Australia. However, it follows the voluntary audit approach. It is important to have audits because they are required to get the federal funds (Anderson, Johnson, & Milligan, 2000). However, (AUQA) was substituted by The Tertiary Education Quality and Standards Agency (TEQSA) in 2011. TEQSA works under the framework of Higher Education Standards (TEQSA, 2014).
India	Accreditation, assessment, and audit	Three approaches integrated to quality assurance in India: accreditation, assessment, and audit. The concentrate of Accreditation is essentially on quality of institutions higher education. The evaluation concentrates on characterizing institution on a nine-point scale with respect to their stands in a quality continuum. Little group of outside companions completes quality review taken after by an open report (Kahsay, 2012).
Saudi Arabia	Accreditation	The National Commission for Academic Accreditation and Assessment (NCAAA) was established by the Higher Education Council in 2004 (Almusallam, 2012). This national accreditation agency is controlled by Ministry of Higher Education, which screens and authorizes Saudi Universities programs. There is additionally a pattern that a few projects have been authorize by a portion of the US accreditation agencies (Albaqami, 2015). The National Commission for Academic Accreditation and Assessment had previously developed a set of standards for Quality Assurance in Higher Education (NCAAA, 2009). These standards are predictable with global benchmarks and important to Saudi Arabian national interests, to coordinate globally perceived

	prescribed procedures in quality assurance conventions for institutions. The National Qualifications Framework is a vital component in the system of accreditation and quality assurance in the Kingdom of Saudi Arabia. These standards are to be applied to all higher educational programmes in Saudi public and private university. (NCAAA, 2009).

Source: Author from various resources cited within the Table (2)

2.3.5. Quality Assurance in Saudi higher education

Prior to establishing NCAA, from 2005 to 2008 Saudi higher education (SHE) received significant help from the British Council's Excellence in Higher Education, which provided training programs in different areas related to QA such as quality management, quality assurance and enhancement issues, as well as teaching and learning strategies, whilst SHE developed a set of quality standards and guidelines (Darandari et al., 2009). More recently, in 2014 and 2015, SHE still presented some of these training programs to the stakeholders, on the practice of QA activities, to improve their performance, which focused on two kinds of standards: standards for Quality Assurance and Accreditation in Higher Education Institutions and standards for Quality Assurance and Accreditation of Higher Education Programmes (Alholiby, 2018). Today, the Saudi Vision 2030 and the National Transformation Program 2020 are incorporated together to improve the "quality education systems" which will lead to the accomplishment of Vision 2030's objectives.

As mentioned earlier in table (2), the National Commission for Accreditation and Assessment is linked to the Ministry of Education which places emphasis on quality assurance activities

based on NCAA's quality standards. In addition, it comprises 11 unified sub-standards which are presented in the following table (2.3) (NCAAA Handbook, 2015):

Table 2.3. NCAAA Handbook, 2015.

The Standards of (NCAA)	
A) Institutional Context **1) Mission and Objectives** **2) Governance and Administration** **3) Management of Quality Assurance and Improvement**	**B) Quality of Learning and Teaching** 4) Learning and Teaching
C) Support for Student Learning **5) Student Administration and Support Services** **6) Learning Resources**	**D) Supporting Infrastructure** 7) Facilities and Equipment 8) Financial Planning and Management 9) Employment Processes
E) Community Contributions **10) Research** **11) Institutional Relationships with the Community**	

In response to the National Commission for Accreditation and Assessment's aim to keep track of the competition, private and public Saudi universities developed an internal Quality Assurance system, whose main goal is to provide an educational environment that aligns with NCAA's standards, which in turn supports enhancing quality and eradicating any barriers to ensure quality in all the programs (Ebrahim, 2019). Supporting this view, most Saudi universities established this system as a deanship in the structure management of the university. For example, KKU developed an Academic Development and Quality Deanship, whose objective is to spread a culture of quality and academic development among the University's affiliates. A further responsibility of this deanship is to provide support and consultation in the

fields of academic development and quality, encourage college initiatives, support deanships in applying quality standards, and finally, to observe quality assurance procedures in colleges in terms of academic research, education and administration in order to raise their efficiency and to achieve their visions, missions and goals Another example of quality assurance being developed in a private Saudi university is that of Prince Sultan University (PSU) which, in 2005, structured Academic Assessment and Planning Centre quality assurance committees in its system and worked alongside the Quality Assurance & Improvement Committee (QAIC), the Institutional Planning Committee (IPC), and the Assessment and Statistical Committee (ASC), each of which has different responsibilities, to meet the required standard of quality across the University's programs (Albaqami, 2015).

However, most importantly, the possibility of challenges in practising QA, or lack of supportive factors from stakeholders could cause considerable problems. Ebrahim (2019) conducted a study to explore the critical success factors in QA of SHE. Using Delphi technique, he found there were several potential difficulties in the procedure of QA systems such as lack of staff training, top management support, and assimilation of QA processes in day-to-day environment.

Moreover, another study by Alholiby (2018) stated that certain factors could influence stakeholders' engagement, such as lack of full and in-depth understanding of quality and QA concepts which breeds further issues such as completing QA forms differently, depending on personal understanding. Furthermore, there is a strong connection between achieving QA and

leadership in Saudi universities, with Saudi Vision 2030 placing great emphasis on the importance of "effective leadership" which has the final decision in facilitating, improving, and enhancing any strategic plan to improve its system from top to bottom (Albaqami, 2015; Ebrahim, 2019).

Alongside achieving Saudi 2030, SHE will continue to improve QA practices to sustain the development of quality of the learning and teaching process. Also, SHE should pay extensive attention to further research and development (Alshayea, 2012).

2.3.6. The importance of QA in HE institutions

The importance of quality assurance in higher education has increased due to its significant role in economic development. Today's economy of knowledge workers has created stipulations for higher skills in many jobs. A new assortment of competences like flexibility, teamwork, effective communication skills and inspirational learning have become crucial for attaining success. Hence, all developing countries which aspire to enter into this economy must initiate quality practices in their teaching and learning environments through inducing positive changes in content and pedagogy (Materu, 2007b).

The higher education environments in developing countries are facing double challenges of conforming to their own local as well as international standards. The situation has intensified due to globalization and the stakeholders are demanding more precision in service delivery. The expectation to create one's own standards in the light of the history and cultural values of

the stakeholders is on the rise. The need is to take apposite measures to bring quality into the system.

2.3.7. Quality assurance challenges

Quality assurance faces some challenges as well, as mentioned earlier. One of the greatest barriers is the perception of cost/benefit and the practical cost and financing of quality assurance including, site visits travel, lodging and meals. Another barrier is lack of human capacity as effective quality assurance depends largely on the availability of highly qualified faculty members and administrators within institutions and competent professional and technical staff in national QA agencies. Lack of training for staff of National QA Agencies is yet another dilemma. For instance, quality assurance in Jordan's higher education institutions facing some issues such as, financial challenges, the absence of admission policies, lack of qualified faculty members, and recognize the importance of quality assurance (Jaber & Al Batsh, 2016). Such types of training require two main types of skills sets—skills for system conceptualization and development of methodologies, and skills for implementation of QA processes (Materu, 2007b).

2.3.8. Quality Enhancement

Enhancement can be facilitated in institutional change agendas by obtaining evidence for improved decision-making, from policy makers, students, academics, employers, managers and administrators. Concepts of enhancement in educational development have tended (in

England at least) to be based around small scale, short-term projects, whereas quality enhancement requires more sophisticated coordination (Brown, 2014).

2.3.9. Relationship between Quality Assurance and Quality Enhancement

Most of the current definitions of quality assurance and quality enhancement terms show that they are clearly distinct activities but there have been remarkably few studies that have directly explored the relationship between them (Williams, 2016). Quality assurance is a thoughtful process to evaluate, assess and make predictions about quality and standards. The embedded concepts are those of enhancement and progress. Quality enhancement on the other hand, is a planned process focusing on change that leads to development. The process is inclusive of long-term strategic planning and short-term operational planning as well. Progress is envisaged through enhancement activities. As when we enhance something, we can change it, so change is reflected through enhancing quality. Quality assurance and quality enhancement are interconnected concepts. Quality assurance is a significant driver for quality enhancement. Quality assurance practitioners can help faculty by providing a new panorama of thinking. The external and internal quality assurance practices have demonstrated that they can employ academic staff in thinking outside the box.

Figure 2-1. Difference between QA and QE. Source: Elassy (2015)

The literature shows the concepts of quality assurance and quality enhancement as associated constructs and both of them support the continuum of quality (see Figure 2-1) (Elassy, 2015). QA and QE are two "major approaches" that conducive to quality improvement, and it is reflected that QA calls attention to preclusion rather than curative measures and focuses on the efficacy of the educational process (Brink, 2010; Lomas, 2004). On the other hand, QA is an inclusive term that covers a whole host of activities, one of which is QE (Williams, 2010). Keeping this in view, we can propose that QA is a "diagnostic" process and can be considered a meta-therapy for educational policy (Gibbs, 2011). Hence, QE furthers the process through eliminating the limits embedded in the QA process. Following table (2.4) illustrates the differences between the two concepts:

Table 2.4. Differences between QA and QE.

QA	QE
Gives insufficient weight to the teaching/learning processes	Gives considerable weight to the teaching/learning processes
Tends to be associated more with assessment and accountability	Tends to be associated more with improvement and development
Meets external standards	Meets internal standards
Moves from top to lower level	Moves from lower to top level
A summative process	A formative process

A quantitative performance	A qualitative performance
Focuses on the past	Focuses on the present and the future
Less freedom (follows absolute rules)	More freedom (uses flexible and negotiated ways)
Gives a greater space to administrators	Gives a greater space to academics

Source: Elassy (2015)

2.3.10. QA in developing and emerging countries

QA policy framework, approaches, and instruments are tailored to each country's particular circumstances (Jung, Wong, Li, Baigaltugs, & Belawati, 2011). The planning of QA processes at the national level is a recent phenomenon in developing countries for example, African countries (Zavale, Santos, & da Conceição Dias, 2016). However, the scenario is changing and the newly founded QA agencies which are not more than 10 years old are bringing a quality revolution in these countries. A few developing countries have even legalized the endorsement of their public universities and deemed it a necessary step towards quality assurance, for example, the Higher Education Commission (HEC) of Pakistan. Among African countries, Ethiopia, Ghana, Mauritius, Nigeria, South Africa, Tanzania, and Uganda have all initiated quality assurance processes (Materu, 2007a). Tanzania and Uganda have legislated in relation to public universities. This exercise was carried out two years ago. Ethiopia included all HEIs in this practice since 2003. Countries like Mozambique and Madagascar have also created similar systems (Materu, 2007b). Furthermore, quality assurance is a relatively new concept in emerging countries such as Saudi Arabian higher education sector, The National Commission for Academic Accreditation and Assessment (NCAAA) had previously developed a set of Standards for Quality Assurance in Higher Education (NCAAA, 2009). These standards are to

be applied to all higher educational programmes in Saudi Arabia, both public and private university. Also, The NCAAA requires that every institution has to create its own quality assurance model (Albaqami, 2015).

2.4. Quality Assurance in E-learning Context in HEIs

Most scholars find defining or explaining the concept of quality extremely complex (Brink, 2010; Ossiannilsson, 2012). Accordingly, defining quality e-learning is even harder task (Shelton, 2011). However, the difficulty must not become a pretext for not achieving quality standards. It needs to take into account the sometimes conflicting views of several stakeholders, so the quality of e-learning is typically defined mainly from the provider's perspective (Jung, 2011).

Many debates have existed on the quality of e-learning. Some argue that quality is achieving the performance level as was the norm in traditional or face-to-face learning (Grifoll et al., 2010). On the other hand, some scholars contend that quality e-learning is an inimitable process which cannot be measured through traditional approaches (Stella & Gnanam, 2004). The third school of thought believes that traditional standards, along with some specified contemporary practices help define quality of e-learning (Jung et al., 2011; Koul, 2006).

2.4.1. The Factors Impact on Quality in E-learning

There are multiple factors that influence on quality in e-learning and these factors must be carefully examined in order to determine the impact made on quality (Al-Hassnawi, 2011;

Porter, 2015). In a comparative study of the factors of e-learning in UK and Asian context, Lin, Ma, and Lin (2011) divided critical success factors into four categories: organisational, technological, e-learning content related, and general factors and factors arising from different stakeholders.

The endeavour to define quality continues. In 2002, Online Learning Consortium (formerly Sloan-C) synthesized five pillars of online quality education which could be used as a framework for measuring and improving e-learning (Shattuck, 2014).

These five pillars for quality online learning which are as follows:

a. Learning effectiveness
b. Student satisfaction
c. Faculty satisfaction
d. Cost effectiveness, and
e. Access.

These five pillars provide a structure for assessing and recuperating an e-learning environment within any institution.

NAHE (2008) has paid attention to the quality in e-learning and its assessment. they emphasised that e-learning must be accessed from a holistic point of view. Consequently, they proposed the E-learning Quality Model (ELQ), with its 10 quality areas such as, student assessment, support (student and staff), resource allocation, vision and institutional leadership (Ossiannilsson, 2012).

In the recent past quality of e-learning in higher education was measured through such practices like course's content, pedagogy and learning outcomes (Bremer, 2012). However, this approach has been replaced by a system approach where an assortment of educational activities which are also considered along with these practices. Such activities include students' needs, use of data and information for decision-making, department contributions, as well as improved learning outcomes (Thair, Garnett, & King, 2006).

Existing quality assurance frameworks, guiding principles, and benchmarks show that quality in online learning has many dimensions. However, it is important to gather these into a number of common issues to which practitioners and students should attend. The current quality assurance context, course of action and standards show that quality in online education has many dimensions. These dimensions have been defined in different countries around the world.

Following are the collective aspects of quality of e-learning (Uvalić-Trumbić, Daniel, & Accreditation, 2016):

1. Institutional support (vision, planning, & infrastructure)
2. Course development -Teaching and learning (instruction)
3. Course structure -Student support
4. Faculty support -Technology
5. Evaluation -Student assessment
6. Examination -security

Another important aspect of quality e-learning is the creation of learning management systems. These are web server-based software applications that provides the administrative and data-tracking functions necessary (Fallon & Brown, 2016) for managing courses. The functionality varies considerably from one system to another. In addition, Khan (2001) examined the critical dimensions necessary for quality learning online and found eight primary categories (Figure 2-2): institutional, management, technological, pedagogical, ethical, interface design, resource support, and evaluation. Each dimension or category of quality indicators contained sub-dimensions. These dimensions have widely used in the field of e-learning quality due to create meaningful learning environment.

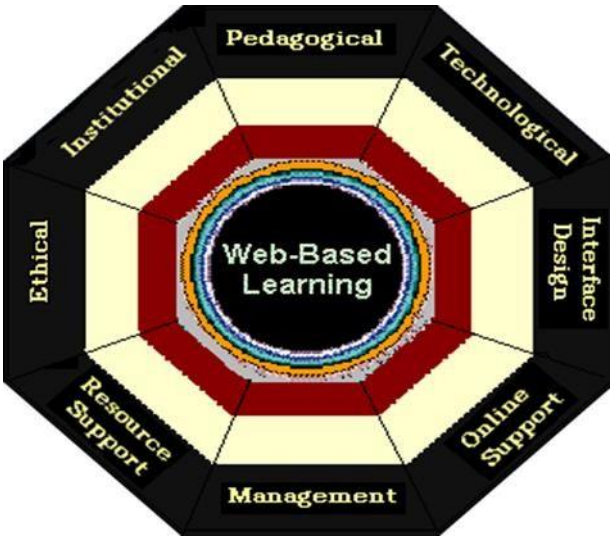

Figure 2-2. Khan's eight dimensions of e-learning framework.

Source: Khan, 2001

Quality and QA guidelines for e-learning also have developed by a range of national, regional and international agencies. For instance, the 'e-xcellence3' project by the European Association of Distance Teaching Universities offers a self-assessment tool which includes 33

benchmarks in six categories, such as strategic management, curriculum design, course design, course delivery, staff support, and student support (Jung, 2011).

However, for the sake of the thesis the definition applied for Saudi Arabia (see Adel, 2017) given by Chapman and Henderson (2010) as it is a similar context to Egypt where it has been used. Chapman & Henderson (2010) defines quality in e-learning as an evaluation process that 'judges, measures, or assesses the quality of the development and delivery of online courses/learning environments focused on appropriate design and best practice and is aimed at self-improvement ensuring quality instruction in a non-threatening way'.

To enhance quality, organisations recurrently indulge into joint ventures with industrial enterprises to maintain quality of their programs. For instance, those higher education institutions that offer Massive Open Online Courses (MOOCs) (a computing infrastructure which can manage a large number of online users) associate with such organizations like Coursera,7 Udacity,8 or Future learn (Spring, 2016). Academic Partnerships help provide a series of services to those universities which proffer their customary programmes online. The services include course renovation, students' recruitment and mentoring as well as technical support.

U21Global is another remarkable example of affiliation between academia and industry regarding online learning. The mission of U21 Global is to harness global management, and the organization was founded in 2001. Initially 16 universities became members from 10

different countries. Currently the headship of U21 Global consists of leading academics from the four foremost partner universities. U21 Global aligns the quality standards of all universities for quality assurance (Walker, 2009) and enhancement purposes.

2.4.2. E-learning quality pedagogical practices

A general misperception about e-learning is that it does not require teaching or a facilitator. E-learning does require a facilitator. An instructor teaching in the traditional way may not necessarily become a good online facilitator due to a number of challenges, both technical and pedagogical. Frass, Rucker, and Washington (2016) pointed that e-learning modes need new skills compared with traditional learning.

Facilitating online learning is like any other situation where you work with human beings. It is important to share your warmth, to be curious about who your students are and how they think, to set a clear course, to provide encouragement, to be there. Eslaminejad, Masood, and Ngah (2010) pointed that the success of any online course relies on the willingness of the instructors as well. Furthermore, online learning requires facilitators to take up multiple roles, such as planner of the course content, replicating effectual behaviour, mentoring and motivating individuals and crafting teams, and being willing to learn and be a good communicator. In this respect, Berge (2001) divided the role of e-instructors into four categories: 1- teaching, 2- socializing, management, and 4- technology integrating. Pedagogical factors are the main priority when teachers use e-learning in their teaching practice (Bawane & Spector, 2009).

Pedagogical principles are theories that govern the good practice of teaching (Govindasamy, 2001). Furthermore, a recent emerging pedagogic approach which is quite beneficial for e-learning environment is the somewhat eclectic linking science known as 'instructional technology teaching' (Govindasamy, 2001). Since this approach is still in its relative infancy, it is further researched by many leading e-learning institutes. Institute for Higher Education Policy, US initiated a research project investigating the use of instructional technology in the leading e-learning institutes. The study benchmarked quality elements which would help in quality teaching of e-learning. Following seven elements were identified:

The seven parameters are:

1. Institutional support
2. Course development
3. Teaching and learning
4. Course structure
5. Student support
6. Faculty support
7. Evaluation and assessment

Not all faculty is experts in all these areas. For example, some faculty will be excellent in content development, hence it is recommended that those faculty who are good performers in these areas should extend their help to others. In order to attain this way mutually the on-the-job training method is considered to be the most cost-effective method for faculty development

in different educational institutions that allows teachers to strengthen their subject knowledge and enhance presentation skills (Sandhu & Hussain, 2016). This way a communal faculty effort would result in good pedagogy. Also, the universities can also commence competitions regarding content development where faculty can showcase their talent of content improvement.

Another area worth discussing is the support for students. Unlike the traditional learning environments where students can get performance feedback instantly through face-to face discussions, the online learning teachers should envisage the problems of the students beforehand as the teacher may not be available instantly at the time the problem arises. This problem could be tackled through Laurillard's Conversational Theory (Laurillard, 2013). According to this theory, the iterative dialogue between teacher and learner develops skills and understanding and is constructed by the environment the teacher designs (So, 2016). The three main elements, namely, teacher, learner, and learning environment are discussed in the subsequent sections. The learner must be able to interact with the material and faculty must be able to evaluate the rate of access of students and create a closely connected environment to assist learning practice through LMS.

Crossan, Lane, and White (1999) have suggested that for good pedagogic practices, organizational learning is a must. They have also recommended that "social and psychological processes" like intuition, interpretation, integration and institutionalization must be in place. Intuition and interpretation are individual processes, while integration occurs at the group level. Institutionalization is rather an organizational process. Intuition helps the individual learner to

make insights about the e-learning systems. Integration helps in shared understanding and coordinated action. At this level dialogue can be exercised as teaching methodology. Hence, e-learning tools can enhance both knowledge sharing as well as prospects for learners and teachers to share their experiences.

2.4.3. Institutions Assuring Quality in e-learning system

The fundamental aspects of quality e-learning include the vision of the pertaining institutions; their commitment to e-learning, their effective leadership and sound planning. Quintessentially, the practice of online learning must be strategically sound. It should be in line with the vision of the university. The leaders and managers must be willing to explain the need for online learning for their university students. In some universities, online learning is implemented as a support system for the more common traditional learning. Also, the institutions are expected to get their programs accredited from the relevant accrediting bodies. The laws governing online learning must also be upheld.

Two significant world associations are working towards providing standards for quality e-learning. Two such organizations are the Australasian Council on Open Distance and e-Learning (ACODE) and the Quality Assurance Framework of the Asian Association of Open Universities (AAOU). Both these organizations provide a plethora of valuable information and plans for institutions in quest of quality.

Another point of emphasis for ensuring quality is the development of faculty and the staff. Eventually it is the responsibility of faculty to ensure that their course design and delivery

methods must be quality based. Different universities have adopted different approaches for staff development in order to bolster their online learning. One such example is that the University of South Africa (UNISA) (Uvalić-Trumbić et al., 2016). For instance, it is the largest open-distance learning institution in Africa and is currently providing professional opportunities to lecturers in diverse areas. The university is also maintaining quality assurance at all levels.

The following some key areas for professional development and support should be considered in preparing of faculty for online learning:

- Developing methodologies to promote interactive learning experiences
- Developing instructional materials
- Learning about new technological development, as well as the use of a mix of technologies
- Strategies for evaluation of the process and outcomes of online learning
- Keeping faculty informed about important institutional policies and administrative procedures.

2.4.4. Theoretical models of e-learning

Numerous frameworks are designed to sustain e-learning theoretically. These theoretical frameworks provide a foundation for quality e-learning practices. The major factors inherent in these theories affecting quality e-learning are technology, pedagogy, organizational context

and creativity. Course design, learning content, and online course environments are all utilized to perceive the quality e-learning (Chang & Tung, 2008).

In the term of the importance of applying comprehensive models in e-learning to meet the stakeholders' satisfaction Hansson stated that "When implementing e-learning, it is important to adopt a holistic approach. … aspects … are part of a puzzle in which all the pieces have to fit together. When one part of the puzzle changes, e.g. technology, student behaviour, knowledge needs, society, finances or staff requirements, all other parts needs to be re-aligned accordingly" (Hansson, 2008, p. 56).

The following section will discuss the QM framework that is used by KKU in term of the impact of improving the faculty members skills in designing blended and full online courses.

2.4.5. Theoretical framework for the present study

This section aims to give a brief overview of various examples of the use of QMs, with samples of some of the original transcripts. The standards in this section will help to illustrate some of ways in which they are used by faculty members to ensure the success of blended and full e-courses. The researcher did not examine general standards one by one in depth, as the main purpose of this study is to explore the development of quality of e-learning using existing models or frameworks to ensure the quality assurance of e-learning in the KKU environment. This is examined from three perspectives of faculty members, administrative staff, and students. Hadullo, Oboko, and Omwenga (2017) stated that the design of e-course can be an

issue especially in developing countries. To avoiding this issue KKU adopted QMs to underpin its faculty members to design blended and full e-course in meaningful methods.

2.4.6. Quality Matters Standards

Quality Matters (QM) is a set of eight general standards and 41 specific review standards used to evaluate the design of online and blended courses (see Appendix 12). The results of this study show, furthermore, that QM targets faculty members and instructional designers to aid them in designing their courses. A unique aspect of Quality Matters is that it assists in the development of faculty members with training, which in turn enables them to become more confident in designing their courses and qualifies them to become peer-reviewers at KKU.

One of the main reasons for discussing the QM model in this study is that it has been introduced and practised at KKU to design blended and full e-courses, therefore it is relevant to this study. In addition, it is an initiative for improving quality which follows the University's vision of applying quality assurance in e-learning and assists some faculty members gain more expertise in designing their online courses. In the context of KKU, its quality assurance department has developed and enhanced quality management of e-learning courses it offers. One such quality assurance procedure adopted by KKU is the King Khalid University Learning Certificate (KKU-EC). This certificate program helps build capacity and competence and raises awareness among KKU faculty members to establish high quality standards in their online courses. The

program works under the umbrella of the Quality Matters Course which is the standardized quality assurance program at KKU. Quality Matters makes use of a measurement tool based on eight general standards of quality assurance. Due to its peer-review process and training courses provided to the faculty, it is highly significant in implementing quality assurance procedures at KKU.

In fact, there are three essential ways of using QM standard used in KKU:

1-To support faculty members in designing their online courses.

3- To measure faculty members' performance by e-specialists.

3- To develop a peer review process.

Moreover, QM standards are considered to be vital tools for guiding the "development of a quality product, as defined by faculty, course designers, administrators, and learners, primarily through faculty professional development and exposure to instructional design principles" (Greenberg, 2010, p. 214).

In this study, QM standards were found to have a significant effect in achieving the success of e-learning; for instance, one faculty member who designed his course based on QM standards reported that:

> For me, it all boils down to course design which is critical to the quality assurance process as it affects the course delivery and overall success of online and blended learning programs.

Furthermore, QM reduces some of the difficulties faced by faculty members or instructional designers (the QM organization's main target audience) when designing their online courses. In this study, for example, QM standards support faculty members by providing them with guidance in designing both blended and online courses. As mentioned earlier, QM provides eight general standards, as shown in Appendix 12, each of which has specific standards, although faculty members at KKU are not required to use all the specific standards. Rather, they are required to use at least 85% of them to ensure the quality of the e-course structure. For example, one faculty member stated:

> I applied the quality standards in my e-course, and there are many standards. If faculty members achieve 85% of these criteria in the e-course they can pass this review.

Table 2.5.The QMs used by KKU faculty members, together with the coding.

Quality Matters Standards	**Example from the interview**
Overview of Course and Introduction standard	The faculty members considered it an important standard as it clarifies the e-course structure via Start Here, which helps them to go through the content of this course. This standard was described by one faculty member as follows: I consider the Start Here icon in the e-course to work as the drip irrigation system process to make e-content clear and easy. Through it, I can post a description of my e-course. I welcome them, I give a brief introduction of myself and clarify the policy of my e-course. Thus, students are able to access all the details of the e-course such as Welcome Message, course description, learning outcomes assessment, and grading.

Assessment and Measurement Standard	In this standard the faculty members are required to clarify the policy of blended and full e-courses regarding grades. This gives a clear picture of the course to the students. One student stated that: I could understand the e-course policy clearly before I started the e-course, through the syllabus that my teacher posted in Blackboard, so this gave me an overview to prepare myself for any project, Quiz, and presentation, especially in a busy semester.
Accessibility Standard	Using the virtual classroom makes the teaching easy by using the recorded lecture feature in Blackboard. One faculty member pointed out: I think that virtual classes are the best for me because I can record the e-lecture and save it for students, and they can benefit from it at any time. Meanwhile, using the virtual classroom based on QM has a good impact on students' viewpoints which leads them to prefer it if they need any help, similar to a traditional course. One student reported, for example: I benefit from Blackboard in various ways, including the virtual classroom which allows me to interact with my instructor if I need any help or have any questions. I can say that the virtual classroom is like a traditional classroom in the way it provides information.

The following section discusses broadly how the higher education practices the quality of e-learning the in different countries.

2.4.7. Quality of e-learning in More Advanced Countries

There are many institutions which have developed principles, guidelines, or benchmarks to ensure quality of e-learning over the advance countries. For instance, the University of Phoenix

is considered to be the leading online university in North America (Casey, 2008). It is also the biggest private university which enrols 250,000 students (Bramble & Lu, 2016). According to Allen and Seaman (2014) 7.1 million students have enrolled in a minimum of one online course in higher education. E-learning quality in these countries heavily rests on the maintenance of quality standards and improvement of methods (Martin, Ndoye, & Wilkins, 2016).This reduces the increasing doubts regarding online learning in terms of acceptability (Lowenthal & Hodges, 2015).

2.4.7.1. The quality of e-learning in UK

The United Kingdom has established four quality assurance assessment bodies. They are Quality Assurance Agency (QAA) for Higher Education, the British Accreditation Council (BAC), the British Standards Institute (BSI), and the Open and Distance Learning Quality Council (ODLQC) (Kirkpatrick, 2012). The Open and Distance Learning Quality Council (ODLQC was founded in 1969 by the then UK government. Although the organization has been privatized, yet it seeks government support for its functions. (ODLQC) developed its standards in 1998 which got enforced in 2006. The standards cover six areas (1) outcome, (2) resources, (3) support, (4) selling, (5) providers, and (6) collaborative provision (ODLQC, 2012).

A few UK universities instituted approaches to guarantee quality in e-learning. For instance, the 3E framework has been established at Edinburgh Napier University. It is an incremental process which helps academic staff become experts at using technology. The 3E framework

consists of three Es which are: enhancing, extending and empowering. The 3E framework is not relevant for the academic staff only but is also valid for meeting institutional objectives. This model has been adopted by various universities in U.K., including York, Liverpool, and Sussex (Thomson, 2016).

2.4.7.2. The quality of e-learning in the United States

In U.S., the Council for Higher Education Accreditation (CHEA) ensures quality for degree awarding higher education alma-maters. One important job of this organization is to guarantee governmental and non-governmental endorsement of organizations to advance quality education. In the recent past the phenomenon of quality assurance has gathered much popularity through the presence of certifying bodies. Texas Education Agency, the National Education Association, and the Sloan Consortium Learning are among these bodies (Shattuck, 2012). The major responsibility of these agencies is to bring up to date and make public new accounts of quality standards for online learning and pedagogy drawn from the experience of subject specialists.

The Sloan Consortium Learning is now called Online Consortium learning. This agency has proposed eight standards for evaluating the quality of online programmes. The standards are (institutional support, technology support, course development / instructional design, course structure, teaching and learning, social and student engagement, student support, and evaluations & assessment (Online Consortium learning, 2017).

Quality Matters is a faculty-centred peer-review process designed to ensure quality in online and blended courses by group of colleagues in the Maryland. The Quality Matters Rubric (QMR) consists of eight general standards and 41 specific standards which are used to evaluate and design online and blended courses. Quality Matters is considered as a comprehensive set of standards that include course, curricula, and instruction, assessment, learner support , faculty support, and program evaluation practices designed to improve quality online courses (Shattuck, 2014). Quality Matters is broadly used across the educational institution over the world. In this study, Quality Matters has been applied as standard of quality assurance program at King Khalid University (KKU).

2.4.7.3. Quality of e-learning in Australia

E-learning is rapidly increasing in Australia. For example, in 2009 there were 108,000 distance learners in Australian public universities comprising 12% of all students with an increase of 3% over 2008 (Ryan and Brown, 2012). A Council on Open, Distance and E-learning (CODE) was developed to monitor the progress of e-learning in Australia. This council has now become Australasian Council on Open, Distance and E-learning (ACODE). It's main purpose is to enrich the Australian higher education sector. Up until 2009, there were 108,000 distance learners in Australian public universities comprising 12% of all students with an increase of 3% over 2008 (Ryan and Brown, 2012).

Another model of e-learning has been developed by Stephen Marshall. It is called the Maturity Model (eMM). The model is multi-level, where at first level the institutions are expected to

evaluate their current capabilities regarding e-learning. At the second level, the model helps by providing tools for convalescing that capability. It has been successfully applied to many Australian universities (Marshall, 2013).

2.4.8. Quality assurance of e-learning in Middle Eastern Countries

E-learning has become a driving force for change and development (Brummelhuis & Kuiper, 2008). However, in developing countries, e-learning is still in its formative years and somewhat variable (Bhuasiri, Xaymoungkhoun, Zo, Rho, & Ciganek, 2012). This makes the task of implementing e-learning challenging for these countries. Noor-Ul-Amin (2013) revealed that the role of ICTs is very important in quality education. The use of ICTs enhances e-learning as in turn provides prospects for education to all and sundry (UNESCO, 2009). Some developed countries have faced similar challenges of implementing quality e-learning like Uganda, Tanzania, and Jordan (Almarabeh, Mohammad, Yousef, & Majdalawi, 2014; Zhu & Justice Mugenyi, 2015).

There has been a colossal enhancement in e-learning in the higher education sector of Middle East, driven by national level policies. This makes the implementation of a holistic e-quality framework all the more important (Ibrahim, 2015).

Bearing all these factors in mind, there is a need to consider the importance of standards of quality in e-learning method by Arab universities. Alshammari (2019) indicated that e-learning within the Arab world requires guidelines for quality control in this sort of learning, together with the development of legal and administrative materials to emphatically influence the states of mind of officials and decision-making forms.

2.4.8.1. Saudi Arabia

In the recent past Saudi Arabia has instituted distance learning programs through online and intranet provisions. There has been a dramatic increase in the conscription of online learners in Saudi universities recently. A royal decree gave the approval of the establishment of the Saudi Electronic University (SEU) in 2011. It is a public university which offers 25% face-to- face classes (SEU, 2012). This online learning program is being supported by MOOC. The Saudi universities have made their own Arab platform called Rwaq. Some associated members of this agency are King Fahd University of Petroleum and Minerals, and Saudi Aramco company (Badi & Ali, 2016). Rwaq is a Saudi education start-up which works with top universities and organizations, academics and instructors to present Massive Open Online Courses for the Arab World. Furthermore, KKU launched its own platform calls KKUx that based on the Saudi Kingdom Vision 2030. This platform provides different courses for job seekers to improve their skill for future jobs.

The National Centre for E-learning and Distance Learning (NCEL) established in 2006. It was originated to promote online learning at Saudi universities. It published a set of quality standards for online learning in Saudi Arabia across the board. Nonetheless, only 8 universities have signed an indenture with NCEL to hold up their online programs (Mirza & Al-Abdulkareem, 2011). NCEL has its own learning management system equivalent to that of Blackboard and Moodle. It is called Jasoor (or bridges in English).

The significant features of this center are as follows:

1-Implementing quality standards for e-learning

2-Helping universities increase service capacity through electronic applications

3-Helping society develop an e-learning culture

4-Funding research in e-learning.

2.4.8.2. Quality of e-learning in Jordan

Higher education Accreditation Commission (HEAC) is accountable for quality assurance in Jordanian higher education by initiating quality standards and monitoring universities to guarantee their dedication towards quality standards. (HEAC,2015). The agency has developed nine standards to warrant online learning. Nevertheless, the courses that this body certifies have been formerly developed through cooperation with American and British universities (Alarifi, 2015).

The University of Jordan translate this vision by introducing an environment where the use of ICT becomes an integral part of the university daily administration and practice. Baklizi and Alghyaline (2011) evaluated e-learning website of Jordan Universities based on ISOIIEC 9126 standard which uses six major features to appraise software and feature has further sub-features. The average quality rating for Jordanian websites was found to be 65.45 %. The highest quality rating for educational and social sciences programmes' website was estimated to be 67.29%. The efficiency and maintainability rate was declared as 73.44%. These results have higher significance for the webmaster as he/she can use them for further enhancing the

technical quality of e-learning websites. Since the results reflect students' needs and wants so their perspectives must be addressed at the earliest opportunity.

E-learning makes use of highly selected materials in the form of PowerPoint presentations and other digitalized materials like CDs and interactive multimedia. The selection process does not end here. One important area which can be a driving force for quality e-learning is the competitive pressures and market forces. The developing countries are making policies to reinforce their e-learning environments at par with the developed countries. For example, the Saudi Kingdom has invested largely into adopting e-learning systems in most universities (Al Gamdi & Samarji, 2016).

The main policy factor which can both be a hindrance as well as a motivator is the funding element. One such funding agency is the State. U.S. has supported many e-learning programs which are being funded by the respective states. Examples include "Florida Virtual School, Michigan Virtual High School, Illinois Virtual High School, Kentucky Virtual High School, and University of California College Preparatory Initiative (Watson, 2005).

2.4.8.3. Analysis of the e-learning context in the Middle East

Quality education has become a central concern of all universities in the world. Middle East universities are no exception. Since the advent of TQM model by Schewart in 1925, many quality practices and models have been introduced. The Ministry of Education in the Hashemite Kingdom of Jordan adopted strategic planning between 2009 and 2013 (Rifai, Taleb, & Alnaji, 2016). "The Queen Rania Distinguished Principal Award" is distributed to those principles

who exercise strategic planning in their respective schools. One research study conducted by (Rifaat, Ali, Al Sabhan, & Nour, 2012) investigated the effects of learning outcomes on quality at the University of Sharjah. Their research yielded the following results for inculcating learning outcomes into the management information system programmes:

1. Adding more practice-based learning components
2. Enhancing course material to improve teaching strategies
3. Using technology and infuse it into the learning process

Each university programme in the United Arab Emirates carries program learning outcomes (PLOs). These PLOs are created through cooperation between the university and the Ministry of Higher Education (ibid).

The Middle East is facing numerous challenges in the current job market. One such challenge is the relevance of their degrees in the global market. The Competence Quotient Model can be utilized to evaluate the quality of these degrees (Gedeon & Khalil, 2015). The CQ model works at two levels: it investigates the relationship between curriculum design and the learning outcomes and also examines the relevance of the curriculum with the required competencies in the job market.

The Competence Quotient Model (CQ) model is monitoring the evolution of the role of information and communication technology in the modernization of higher education in the Arab States in general and specifically in the institutions of the Middle East (Gedeon & Khalil, 2015). The CQ model aims to bridge the social gaps between learners and e-learning providers

through giving ample space to them to reflect on their interpersonal skills. The model also highlights key performance areas and provides indicators for enhancing performance. Hence, it is a useful model for ensuring quality in the Middle East Universities.

Overall, there has been a growth in establishing e-learning models in a number of Middle East universities, however it is crucial to create more e-learning models and to practice them on the ground, in order to ensure all the aspects of quality assurance.

2.4.8.4. E-learning quality practices in Saudi Arabia

Now, the researcher will shift her focus to Saudi Arabia and its e-learning quality practices. Saudi Arabia established the National Center of e-learning and Distance learning (ELC) in 2006. The center was created with an aim to foster e-learning in Saudi Arabia as well as to bridge the gap between these two systems of learning.

The adoption of e-learning practices in Saudi Arabia has been a slow process (Mirza & Al-Abdulkareem, 2011). E-learning is limited to confining the distributed lectures and making it accessible through the LMS to their full-time students on campus. However, the adoption of e-learning system faced obstacles in some educational institution. The internal sources include the faculty members' attitude towards technology adoption and their level of competence while, the external sources include the ease of access of the related technology, the scarcity of organizational support and the deficiency of funding for internal and external resources (Al Gamdi & Samarji, 2016). They have listed perceived barriers towards e-learning in the following table (2.6) (Al Gamdi & Samarji, 2016).

Table 2.6. Perceived barriers towards e-learning listed by (Al Gamdi & Samarji, 2016).

Perceived Barriers Towards E-Learning	
1. Poor networking	**8. Concern about faculty workload**
2. Lack of training on e-Learning	**9. Lack of incentives to use e-learning**
3. Lack of technical support in the university	**10. Lack of credit towards promotion**
4. Inadequate availability of hardware and software	**11. Lack of time to develop e-courses**
5. Lack of institutional policy for e-learning	**12. Concern about access to students**
6. Lack of adequate English Language proficiency	**13. Concern about security issues on internet**
7. Lack of instructional design support for e-learning	**14. No role models to follow**
	15. Concern about the quality of e-courses
	16. Self-intimidated by technology

Source: Al Gamdi & Samarji (2016)

It is interesting to note that the first five perceived barriers are all external sources. Also, barrier no 6 is an interesting observation in the case of Saudi Arabia. The lack of adeptness in English language skills is greatly hampering quality e-learning in Saudi Arabia.

Furthermore, there are certain barriers which KSA currently faces in implementation of its exponential growth (Akhter, 2016). They pertain to the dearth of skilled faculty members. To overcome this challenge KSA hires expert faculty members from neighbouring countries like Egypt, India, Bangladesh, Sudan, and Pakistan (Al-Asmari & Rabb Khan, 2014). This in turn increases the financial burden on the university management. Also, the cost of maintaining state-of-the-art infrastructures is rising in Saudi Arabia. Another area of concern is the lack of

female instructors. As Saudi Arabia does not offer co-education, hence, the scarcity of female teachers is a growing predicament for Saudi female students.

Given the population statistics of Saudi Arabia where in the last 10 years the population under 20 years of age has grown by about 52.9%, it is no wonder that the Saudi government must invest in e-learning projects (Al-Asmari & Rabb Khan, 2014). It is so because e-learning helps reduce oversize classrooms and provides one-to-one learning support to the students which, is near to impossible in traditional classrooms. One of such initiatives of e-learning in Saudi universities is to provide all classrooms with technology equipment like digital whiteboards, e-podiums, Polycom video conferencing, and others multimedia tools.

The e-learning Deanship is considered as the body that manages e-learning at and develops the skills and capabilities of university faculty and staff that are required for e-learning adoption in learning and teaching practice. Thus, some of the Saudi universities established an e-learning deanship in order to examine and ensure the dynamics within and between the elements of the activity system among e-learning system (Alshahrani & Ally, 2016).

To give a concrete example, The King Khalid University (KKU) established the Deanship of Distance Learning in 2005. In response to the desired and high quality of e-learning system, the unit and team (Administrative Management-Training- E-learning team-the Web team-Studio Team) were designed and each of teams are responsible for various task. KKU has delivered its online courses offered through LMS Blackboard. It has aimed to provide over 70,000 students by helping them align and engage in the e-learning mode (Alwalidi & Lefrere, 2010).

KKU integrated a three-level strategy to implement and manage e-learning: the first level is supportive e-learning, the second level is blended learning and the third level is complete e-learning (Al Zumor, Al Refaai, Eddin, & Al-Rahman, 2013). Moreover, KKU is considered as one of earlier users in adopting blended learning among Saudi universities (Alebaikan & Troudi, 2010; Aljaber, 2018).

To ensure that the increasing of quality education and improve the quality of e-learning system are being met. KKU have adopted Quality Matters model in its e-learning system. This model makes us of a measurement tool based on eight general standards of quality assurance. Based on its peer-review process and trainings provided to the faculty, it is highly significant in implementing quality assurance procedures at (KKU). This study aims to discover e-learning strategies used at (KKU) and their relationship with quality assurance or, to put it in simple terms, how KKU ensures quality assurance and quality enhancement in e-learning. Saudi Arabia is in a unique country in terms of culture, religion and other aspects of life and economy. The research will derive inductively the model of quality assurance and enhancement at KKU, which will be embedded in the data. In the discussion section, I integrated the model that is used in KKU with the previous result of using this model in different universities. This is to examine quality in e-learning in order to look for positive and negative trends that relate to improving the design of blended and full e-courses. Emphasis will be on how those affect in a positive or negative manner.

There is some evidence relating to aspects of e-learning at KKU. According to Al-Dosari (2011) faculty members and students' viewpoints of e-learning in the English department indicated that learning could improve in e-learning synchronous and asynchronous mode much better than in traditional at KKU. Another study showed positive attitude of students in using e-learning system in improving their English language skills. The statistics of e-learning at KKU presented that the high success of e-learning system only in the year 2010/2011 the university has had 288 e-tests including 11170 students (Al-Saif, 2013).

However, in spite of the aforementioned barriers, e-learning offers considerable strategic significance to Saudi Arabia. It was remarked by the Deputy Minister for Academic Affairs at MOHE at the second international conference on e-learning in Riyadh (2011) that the literacy rate in Saudi Arabia had risen to 89% in response to due to the adoption of e-learning in Saudi educational institutions. In brief, this notable improvement of in quality education could be as motivation way that inspire Saudi universities to beware of using e-learning method in term of creating or adopting strong framework in blended and online courses.

2.5. Saudi Arabia's Vision 2030

As part of the attempt to shift in Saudi Arabia's economy away from its dependency on oil by increasing its knowledge-based economy, the National Transformation Program 2020 was launched in line with Saudi Vision 2030. Different government bodies, particularly the Ministry of Education, are involved in attempting to achieve these aims (Mitchell & Alfuraih,

2018). The National Transformation Program (NTP) is also concerned with identifying any potential difficulties Saudi Vision 2030 may face in this respect. In education sector, one of the initiatives of the Vision is to establish the King Salman University for Technical & Vocational Education. Furthermore, it intends to develop an e-service framework for universities, as well improving the digital infrastructure through the Digital Transformation Program which regulates electronic activities for all government bodies such as Financial Services, the Ministry of Civil Service, the Ministry of Labour and Social Development, as well as the Ministry of Education. This digital infrastructure will be the foundation for ICT Development and the move to digital learning to aid teachers and learners in their learning process.

According to Alshammari (2019) Saudi Arabia is viewed as a centre for Arab Unity Studies and places great emphasis on using ICT in learning in order to improve the quality of education. It is clear that ICT is a powerful way to increase knowledge and skills, thus the Saudi government provides basic ICT training both for women and men to enable them to enter the labour market (Nurunnabi, 2017). The strategy of subsidizing the use of ICT devices for learning, for example tablets, PCs or web-based learning projects, is an approach that will improve access to information. Furthermore, the use of different PC applications in ICT in education is further progress in the push to change Saudi Arabia into a knowledge based economy instead of being fully dependent on its oil revenue (Alomari, 2019).

Mutambik (2018) stated that e-learning in Saudi higher education could supplement the current conventional teaching methods, in accordance with the national Vision 2030, to build a knowledge-based economy and improve the quality of education. Overall, by implementing new strategies using ICT services, based on the Saudi Vision 2030, across government bodies including the Ministry of Education, quality would be a high priority that should be taken into account by Saudi universities that are striving to meet the students' and teachers' needs. Hence, one of the objectives of this study is to explore the factors which constitute the quality of e-learning in one Saudi university.

2.6. Conclusion

The first part of this chapter discussed the history, definition, and advantages and disadvantages of e-learning in general. It presented the obstacles that hinder the implementation of e-learning, especially the challenges that face faculty members in developing countries. The second part discussed an overview of the concept of quality, the history of quality assurance (QA) in higher education, the importance of QA in institutions, and quality assurance practices, covering internal and external quality assurance. Moreover, it presented multiple approaches of quality assurance that are used in developed and developing country including higher education in Saudi Arabia. Furthermore, the relationship between quality assurance and quality enhancement in HE was presented in terms of their role in supporting the continuum of quality. Finally, the third part described and discussed QA in e-learning in details the factors which impact on constructing quality in e-learning in an HE environment with examples of existing

quality assurance frameworks that have been used. Most importantly, the Quality Matters model of e-learning, which has already been adopted to a great extent in the KKU e-learning environment, was discussed in relation to the findings of this study. In addition, this chapter concluded by highlighting the ways in which institutions provide quality assurance in their e-learning systems in advanced and Middle Eastern countries, with particular focus on Saudi Arabia HE.

The next chapter will discuss the research methodology and the data collection methods that were used in this empirical work so as to address the research questions.

3. Research Methodology

3.1. Introduction

This chapter describes the research design of this study and its rationale, as well as the various data collection methods used, the study sample, and the ethical considerations are discussed and justified. Furthermore, the role of the researcher is explained.

3.2. Research Paradigm

Quality assurance is a significant issue in the e-learning realm and providing a high-standard of online course with quality practices will motivate students and faculty members to use e-learning and benefit from the e-course materials.

Recently, e-learning has become popular in higher education in Saudi Arabia and promoted by the educational policies (see previous chapter). However, there is a common belief among many Saudi university students that e-learning might be lacking in quality; they think that, since there is no face-to-face interaction between students and faculty members, that no quality teaching can take place. Although this is a common misconception (Marks, 2016), it is creating misunderstandings between students and faculty members. The navigation of courses is also a difficult task for students, especially those who are not competent or confident with technology. Consequently, this study aims to explore this important topic in the context of the increasing use of ICT in a naturalistic setting in a university in Saudi Arabia, to understand its quality assurance practices and their implications for strategic decisions within senior management for

e-learning enhancement from the perspective of three kinds of stakeholder. The main reason for choosing an exploratory study was the general dearth of research into how the Arab academic community understands e-learning and how it views the quality of e-learning. In fact, these emergent factors will help Arab academics to establish successful quality assurance processes in the e-learning environment.

This thesis utilizes a qualitative method to frame this study, as qualitative research is most appropriate for understanding real-life phenomena (Merriam, 1998). The research is qualitative as it intends to derive a model of quality assurance for e-learning at KKU and show how quality might be enhanced from the perspective of faculty members. In order to understand the processes and outcomes of quality assurance in e-learning, multiple perspectives were obtained; for example, from faculty members, IT staff, and senior management who are involved in quality assurance and quality enhancement in e-learning. In addition, five students in total, two males and three females, were also interviewed.

Qualitative research can be defined in various ways, for example, Richard (2013) argues that qualitative research "focuses on the meanings, traits and defining characteristics of events, people, interactions, settings/cultures and experience" Another definition given by (Hutchin, 2001, p. 55) is that "Qualitative methods can be used to uncover and understand what lies behind any phenomenon about which little is known".

Thus, quality assurance in e-learning is viewed as more complex (Brink, 2010; Ossiannilsson, 2012), and in order to obtain a deeper understanding of it, stakeholders' perceptions need to be

analysed qualitatively, in order to obtain the relevant information for this analysis. Hence, this study is qualitative and interpretive (perception and interpretation of the social world through various participants' eyes).

Moreover, one of the advantages of qualitive research is its flexibility, which allows the researcher to make changes or add information during the study (Maxwell, 2012) so as to ensure the research objectives are met. In this regard, as researcher in this study I was able to select more knowledgeable participants and to change some of the questions and focus more on those participants who used blended and full e-courses due to faculty members using different method of e-learning in KKU (more details will be provided below).

As mentioned previously, this is an exploratory study of the quality of e-learning in one Saudi university through the perception of its stakeholders; it does not test any specific theory. Further, Creswell (2014, p. 4) indicates that qualitative research is more suitable for exploratory study, saying "qualitative research is an approach for exploring and understanding the meaning individuals or groups ascribe to a social or human problem".

Overall, qualitative research is a useful method in terms of enabling the researcher to understand the phenomenon of quality assurance and its supportive and impeding factors in e-learning in the KKU environment, from the holistic viewpoints of different participants. Also, it supports the researchers in interpreting the underlying meanings that pertain to the practice of quality in e-learning by stakeholders using an international standard (Quality Matters) which was employed by KKU in its blended and full e-courses.

3.3. Research Design

3.3.1. Case Study

As defined by (Yin, 2003) a case study is "an empirical inquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context not clearly evident". Additionally, the case study assists the researcher in answering research questions through minimum or no influence over the behaviours or actions of occurrences (Yin, 2015).

As this study focuses on the supporting and impeding factors in the development of quality in e-learning environment within the context of a Saudi university, and explores the perspectives of the participants, a qualitive exploratory case study was employed to form the main research strategy in an inductive way to answer the research questions, in an attempt to provide essential insight to the future of quality assurance in e-learning, especially in Saudi higher education. Most importantly, the Kingdom of Saudi Arabi is concerned with the developing of higher education in the light of the 2020-2030 Saudi vision. Recently, e-learning systems have become increasingly powerful in creating sufficient opportunity to learn, and the new generation of students are more likely to use ICT in their learning activities. In this respect, there is a need to investigate how e-learning can be provided in a way in which quality assurance can meet satisfy the stakeholders.

Yin (1998) classifies case study into three types namely, exploratory, explanatory, and descriptive, and these can be used as single and multiple cases studies (Patton, 2002). In the current study, the researcher uses a single case study in the context of a Saudi university where e-learning practices are carried out and Quality Matters standards are used in designing and evaluating blended and full e-courses. According to Myers (2013) a case study can be conducted if the research question is concerned with 'how' and 'why', and this approach is particularly suitable, in an exploratory case study in order to gain an in-depth understanding of the aspects of phenomena. This is particularly true of the exploratory case study method chosen to answer the research questions in this study, which seek to illustrate how the University developed strategies to build quality assurance in an e-learning environment and the factors that support faculty members in teaching and achieving high quality provision of education at KKU. Furthermore, it explores what obstacles the University encountered when they implemented the Quality Matters standards in their blended and full online courses and explores how they developed a strategy to improve its faculty members' skills and knowledge through a series of training programs.

The main reason for choosing an exploratory case study when designing this study was that this method is frequently used when there has been little research into the topic under investigation (Collis & Hussey, 2013). The researcher uses exploratory study in an attempt to comprehend the quality of e-learning phenomena in Saudi universities, which needs to be investigated in depth, as most Saudi universities have adopted e-learning methods which they

provide to their students as well as their faculty members. Hence, there is a dearth in the literature of qualitative studies that explore stakeholders' perceptions of how the university supports them in implementing best practice quality of e-learning in the Saudi higher education context. Additionally, some Saudi universities have no reliable standard for designing and measuring their online-courses; hence, there was a call to incorporate useful standards in Saudi online courses by (Al-Hosan & Oyaid, 2012; Alarifi, 2015) regarding how the creation and implementation of development training programs for faculty members and administrative staff.

3.4. Data Collection Methods

Two types of data collection were used for this case study to explore the quality of e-learning development and the standard of e-learning from the participants' perception with the interview being the main data collection method and document analysis being the secondary research method. The document analysis covers the analysis of some faculty course design materials, course/grading policies, assessment structures, KKU e-learning policy documents, journals, magazines, newsletters, webpages and any other print or online materials employed in the overall deliverance of e-learning courses.

3.4.1. Interview method

(Plas & Kvale, 1996, p. 14) define the interview as "an interchange of views between two or more people on a topic of mutual interest, [which] sees the centrality of human interaction for

knowledge production, and emphasizes the social situatedness of research data." As noted by (Seidman, 2006, p. 130) the interview method provides a deeper understanding of issues, structures, processes, and policies that imbue participants' stories. On other hand, the interview is time-consuming in terms of the actual interview process and the transcription and analysis of every single interview (Bryman, 2001).

As researcher I carried out the interview method, as is commonly used in the qualitative research method (Patton, 1990), using a variety of formats, including face-to face, with a single participant, telephone interviews and focus group interviews. A focus group interview is a beneficial method through which to develop conversation and enable the participants and the interviewer to interact to produce data and insight that would be less accessible otherwise (Morgan, 1996).

Semi-structured interviews were undertaken with open-ended questions in this study which, according to Kvale and Brinkmann (2009) is a flexible way to elicit views and experiences from participants in a free-flowing dialogue (Choak, 2013) with the researcher asking questions, but also responding to the interviewee. The researcher employed semi-structured interviews in order to obtain more information regarding the quality of e-learning, which provided an opportunity to focus on all aspects of the quality of e-learning development in KKU environment. The semi-structured interview can be difficult as the researcher must pay attention to what the participants are saying as they may generate new questions and areas to explore (Hove & Anda, 2005).

The interview questions were first written in English in order to show my supervisor and obtain his feedback, then all these questions were translated into Arabic for the interviewees as it is the first language of most of the participants. However, English was used for international participants (these were faculty members). Eventually, the researcher translated all the interviewees' responses into English. The interviews were scheduled at different times during the data collection period. Although translation can be challenging (Inhetveen, 2012) this was to enable thematic coding and analysis to take place in the same language, English as this was the language of the thesis.

3.4.2. Interview Method - Procedures

The first step in this phrase was to obtain ethical approval (see Appendix 1) from Durham University which took one month to be issued. In addition, the researcher kept contacting the KKU in order to obtain institutional approval to conduct the interviews with their stakeholders (see Appendix 2). The e-learning Deanship at KKU was helpful to the researcher in facilitating the interview process.

The researcher conducted data collection between June and August of 2017 in Saudi Arabia, in two phases: the first was carried out in order to gather initial information and concerned the personal experiences of faculty members and their position on e-learning, what type of e-learning they usually use in their teaching activities, and whether or not they occupy a position in quality management. This was a useful process, involving the interviews of some

participants in the study to support the research planning (Creswell, 2014). The second phase was the main collection process and included all interviews with participants.

Clearly, this study focuses on the development of e-learning quality in the KKU environment and how the University trains and assesses its faculty members in the use of Quality Matters standards and its impact on their blended and full e-courses. Further, it looks at their perceptions regarding new experiences in using international QM standards and how to become a member of the Quality Matters organization. In order to obtain more information, it was necessary for the researcher to ask the participants (faculty members) to complete a pre- questionnaire form regarding the initial information (see Appendix 3). Later on, based on information obtained from this form the researcher was able to choose the appropriate participants (faculty members) in order to gain a better understanding of the breadth of their views and experiences in terms of what and how quality assurance developed in the e-learning environment. This was an important step in the data collection process which assisted the researcher in starting to interview participants and ensuring sufficient information would be obtained. The researcher distributed the initial form only to faculty members, by hand and via e-mail, together with the informed consent form (see Appendix 4). An informed consent form which included a brief of the purpose of this study was also sent to students and administrative staff. The informed consent was sent to some participants (faculty and administrative staff) one month prior to the actual interviews.

At the beginning of each interview, the researcher was concerned to determine whether or not all participants had read the informed consent form, therefore she opened the interview with a short overview of the topic, requested permission to record the interview, reminded them of their right to skip any questions they did not want to answer, and informed the participant that they were free to withdraw at any time during the interview or subsequently from the research.

The researcher faced some difficulties in arranging interview times and making appointments with participants as the data collection period coincided with the summer holiday for Saudi universities. Nevertheless, this was overcome by a preliminary visit to different campuses to ask which faculty or administrative staff would be available during the summer session. Fortunately, the staff were helpful in directing the researcher, particularly at those campuses which were unfamiliar to her, such as the Medical College and the Biology Department. Importantly, the list of names of those faculty members who specialise in and have experience of Quality Matters standards was provided in advance to the researcher from the first phase of data collection. Some of the interviews took place on different KKU campuses and the length of each interview was about 40 minutes to one hour. Prior to conducting the interviews, permission was obtained from of all participants for the researcher to use a digital recorder in the interviews, thereby allowing the researcher to gather information even after the interviews had taken place and making it easy to reiterate the content of the interview any time the researcher needed it (King & Horrocks, 2010).

At the beginning of each interview, as researcher I gave a short introduction about myself, especially for participants who I was meeting for the first time. The interview started by asking general questions to obtain their demographic information and then went deeply to the main themes (see Appendix 5, 6 and 7). During the interviews, as researcher I listened carefully as the participants openly expressed their feelings and perceptions in response to all questions regarding e-learning quality. The use of notetaking was used to identify worthwhile and interesting points which would generate new questions related to the topic (King & Horrocks, 2010). Key words were further used to prompt the participants to elaborate on important points.

Importantly, as researcher I asked all participants (faculty members and administrative staff) for any documents they thought were relevant to the topic during the interviews, so some of them provided documents that were included in this study (there are more details in the documents section in Table 3.1). As the education system in most Saudi universities separates males and females, four males (faculty members and administrative staff), and two students' interviews were conducted by telephone. Additionally, two female (administrative staff) interviews were carried out in the same way because the participants were not present due to it being the summer holiday, and as researcher I believed that their interviews would be a rich source of information. With regard to the student interviews, focus groups with three female students, and two interviews with male students were conducted by telephone, in Arabic, three were conducted in English.

Most importantly, the skills of the researcher (interviewer) have a positive impact on the quality of the interviews (Hove & Anda, 2005). Before the commencement of data collection, the as researcher I attended two training programs provided by Durham University, which were helpful as they showed an interviewer what to do during an interview with participants.

3.4.3. Documents method

Yin (2003) recommended using documents in data collection as it is considered a useful way to fill the gaps in the interview method. The researcher used documents in addition to interviews, to gather information in order to answer the research questions regarding e-learning quality. Some of the documents used in this study are available on KKU's website, and others were provided by faculty members and managers. Stake (1995) clarifies that using various data collection methods enable a better understanding of the case.

According to Bowen (2009) 'Documents contain text (words) and images that have been recorded without a researcher's intervention', which assists to minimize the influence of bias of research (Mackieson, Shlonsky, & Connolly, 2018). This is because, as in my own case, when the researcher is not present there is less risk of her imposing her own reflections. Thus, for example, the use of existing documents is valuable since it encourages verifiable research which advises examination and understanding of past impacts on display approaches, legislation, service frameworks and/or programs (Mackieson et al., 2018). Also, government documents can be a useful source of information due to the high quality of content and formal sources (Bowen, 2009). In this vein, (Mackieson et al., 2018), who conducted a study using

official records, in the form of parliamentary documents as one method to gather data, and used thematic analysis to analyse these data, found that using these methods together decreased bias and increased rigour and transparency.

During the first visit, the as researcher I requested a list of names of faculty members and administrative staff who are involved in Quality Matters. The e-Learning Deanship provided documentation of the e-learning management structure, list of names of faculty members and policies. Other documents were requested and received from one faculty member regarding her evaluation in applying QM standards in her full e-course. This supported an analysis of how the University measures faculty members' performance, especially in QM standards. The following table (3.1) shows all the documentation used in this study:

Table 3.1. All the documentation used in this study.

Type of document	**Explanation**
List of names of faculty members in Quality Matter (hard copy).	The trainer, facilitator, peer reviewer, and master reviewer
Evaluation form	Applying QM standards in one full e-course
University magazine	
Hardcopy of booklet	Services of e-Learning Deanship
University website	Blackboard platform, information about quality management, Quality Matters.
Video	Tamkeen channel content
Hardcopy of e-Learning Deanship management structure	Diagram of management structure
KKU e-learning strategic plan	Vision, goals and related actions,

Rules for e-learning at KKU	This covers all policies for students and faculty members in using different method of e-learning

3.5. The Study Sample

3.5.1. The size of the sample

The entire sample for this study was taken from one Saudi university, KKU, where e-learning is widely utilized, along with quality assurance practices. The sample for this research comprises a total of 30 participants. The sample includes 18 faculty members who use different methods of e-learning, including, supportive, blended, and full e-course methods. It should be noted that the researcher did not choose many participants who use supportive e-learning methods because they would usually use it only as a way of facilitating their traditional and e-teaching activities; for example, if they need to post the syllabus of the course or communicate with students through e-mail, or conducting online quizzes. In fact, they do not such extensive training as those participants who use other e-learning methods in KKU, who have been enrolled in advanced training such as Quality Matters standards. In addition, seven administrative staff and five students participated in the interviews. The following table (3.2) shows the sample size:

Table 3.2. The sample size.

Faculty members	Administrative staffs	Students
3 males **15 females**	4 males 3 females	2 males 3 females

3.5.2. Random Probability Sampling Vs. Purposive Sampling

Conceivably, nothing depicts the difference between quantitative and qualitative research better than sampling methods (Patton, 2002). The focus of a qualitative research is an 'in depth' study of the phenomenon, so much so that it can even study single cases. On the other hand, a quantitative study focuses on larger samples which are randomly selected. The random sampling technique has its roots in statistical probability theory, and a randomly selected population/sample has the capacity to yield results which can be generalized to the whole population; Hence, it is an accepted method in quantitative research.

In contrast, qualitative research uses purposive or judgment-based sampling, in which "you decide the purpose you want informants (or communities) to serve, and you go out to find some" (Bernard & Bernard, 2012, p. 177).

Therefore, the purposive sample was used mainly to answer the research questions and provide robust information in terms of how the quality of e-learning development has been met in the KKU environment by faculty members and administrative staff. In this respect, Patton (2002, p. 230) explains that "Info-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the inquiry, thus the term purposeful sampling ".

Nevertheless, the nationality, ethnicity and cultural background of the participants differed, which is a limitation for this research study which cannot be controlled because universities

are places of diversity. This is also true of KKU, as it is an international university which encourages diversity both its faculty members and its student population. Before the research I worked at KKU, this helped me to communicate easily with participants, especially in recruiting faculty members and administrative staff. In addition, as researcher I contacted all the participants via the official KKU e-mail.

One way as researcher I used to identify the purposive sample was to request a list of the names of faculty members who had taken all the required elements of the Quality Matters training program and passed all the stages. This list was provided by the e-Learning Deanship and the quality management team and helped the researcher to choose the purposive participants.

To understand the advanced knowledge pertaining to quality assurance in e-learning, the decision makers (managers, e-specialists, and trainers) were taken into account in this study in order to obtain rich information about this aspect of the study. Notably, faculty members with background in using e-learning under Quality Matter standards were interviewed due to their experience and practices in e-learning quality. The following table (3.3) presents the faculty members sample based on their use of e-learning:

Table 3.3. The faculty members sample based on their use of e-learning.

Supportive e-learning	**Blended e-learning under QMs**	**Both blended and full e-learning under QMs**
2 female and one male FM	4 female FM	11 FM

3.5.3. The Student Sample

Indeed, as one of the purposes of this study is to explore the quality of e-learning phenomena according to different participants, the students' view and voice is important in measuring the quality of e-learning. As defined by Vogt (1999), the snowballing method is a technique for finding research participants whereby one participant gives the researcher the name of another participant, who in turn provides the name of a third, and so on. The research approach employed a snowballing technique for recruiting. The names of only one female and one male student were provided by the e-Learning Deanship and those students referred the researcher to other students. All the students were from different departments, but the main thing they had in common was experience in learning through both blended and full e-courses, which enabled the research to collect richer information.

My original intention was to collect the data only from faculty members and administrative staff; however, when I consulted my supervisor to ask whether students could be involved in this research, I was told that the student's viewpoint is imperative in evaluating the quality of e-learning and therefore including students would offer a more holistic and in-depth approach to gathering and understanding quality assurance practices in an e-learning environment. Hence, I decided to include students in this study. Although I hoped to conduct interviews with many students, due to the data collection stage coinciding with the summer holiday in Saudi Arabia, where the target university for this research is located, I was unable to meet many students, as mentioned earlier. Furthermore, in order to achieve a better understanding of the impact of

quality e-learning upon students' thoughts and skills, the background of the students participating would need to be diverse in terms of gender, subject, and experience of using blended and full e-courses. However, I was unable to find many students who met all the above requirements, to interview them. Thus, the numbers of students in this research was therefore limited to the five students interviewed in the two focus groups.

3.6. Triangulation

The triangulation approach is a combination of two or more data sources (Denzin, 2009). As the research adopted two kinds of methods in data collection, this study includes triangulation. The two methods used were interviews and document analysis which helped in acquiring rich data which can be compared and contrasted. Triangulation is utilized to enhance reliability and credibility of findings in a qualitative study (Creswell, 2014; Gringeri, Barusch, & Cambron, 2013). In addition, the diversity of participants was utilised in the present study, involving faculty members, administrative staff, and students helped to ensure the validity of the data.

3.7. Transcript and Translation

As mentioned earlier, this study explores the quality of the e-learning phenomenon in Saudi Arabia, where Arabic is the official language. Most of the interviews were carried out in Arabic language, with the exception of three which were in English. The researcher transcribed each interview using the Word program in Arabic. Notably, there were two versions of the interviews, the original and the translation, and these were saved securely in the researcher's software file and hardcopy file.

Indeed, this process was time-consuming for the researcher in terms of managing working between the hardcopy and transcribing them using the software program, which, in turn, caused a delay in the data analysis phase. Nevertheless, this enabled researcher to become familiar with the information contained in the interviews.

To ensure the accuracy of the interviews which were transcribed from English into Arabic, and vice versa, the interviews and questions were thoroughly reviewed by two students who speak English fluently. Therefore, some of the mends were applied to transition interviews which allowed the researcher to start analysing and coding the data confidentially.

3.8. Ethical Considerations

The researcher was aware of the various ethical issues which were linked to the research study being conducted and was responsible for using the research methods carefully to ensure that ethical considerations were not ignored. First of all, the informed consent of the participants was taken so that they were aware of the research aim and objectives. Secondly, the confidentiality of the participants' data was ensured through the protection of their personal information, thus their dignity and privacy were ensured. The protection of the data was the researcher's responsibility so that no misuse of data could take place, and it was used only for the purpose of this study. Thirdly, the research methods and procedures were carried out after the necessary permission was received from the QM team at KKU.

Thus, the research study was carried out according to the rules and regulations as well as ethical considerations.

It is worth noting that reliability and validity are deemed two focal terms used to denote credibility of scientific research (Silverman, 2001). Regarding the reliability and consistency of the interviews in this research, the same questions were asked of all suitable participants among the faculty members, students, and administrative staff (see Appendix 5,6,7) both in the face to face and telephone interviews. Furthermore, all interviews were recorded with the important points written down, translated if necessary, and then transcribed and analysed.

In relation to reliability and validity, Creswell (2013) pointed out that there are crucial strategies which ensure reliability such as member checking, triangulation, and presenting participants' negative and positive reflection, and as a researcher I considered these strategies. First, I used two methods of data collection, in order to reduce the possibility of researcher bias (Patton, 2002), and increase research validity (Creswell, 2013; Silverman, 2001). Second, at the end of each face to face interview I confirmed the main points with the participant in order to verify their perceptions. In addition, following the telephone interviews, I repeated the main information back to them and later I sent the original interview to them (faculty members, administrative staff). Some of them sent it back with comments and others did not. Third, I clarified the different and similar views of participants (see Chapter 4) as this study was conducted with participants from different academic backgrounds, so it was unlikely that they would have the same views.

3.9. Data Analysis Process

There are multiple approaches to analysing data in qualitative research, one of which is thematic analysis which was developed by (Braun & Clarke, 2006). In the current study I have followed their guidance, which consists of six steps which allow the researcher to extract coding and define important themes from original texts (interviews and documents). The thematic analysis method is referred as "a method for identifying, analysing, and reporting patterns (themes) within data" (Braun & Clarke, 2006, p. 6).

The reasons for choosing thematic analysis method to analyse the data in this study were twofold: first, it is a suitable method for rich data with implicit meaning, as asserted by Boyatzis (1998) who indicated that thematic analysis is particularly useful when dealing with a large amount of data from different participants, allowing the rich data to be to be broken down and orchestrated into a significant explanation. In this study, there is rich data, from a total of 30 interviews from different stakeholders in KKU, and various documents as explained earlier. Thus, this technique enabled the researcher to convert the raw data into a meaningful theme using a systemic approach (Braun & Clarke, 2006).

After the translating and transcription stage, all the interviews and some of the documents were ready, in English, for analysis. All the data was analysed in English to avoid any misunderstanding or confusion. All the interviews were printed out and saved in a folder, which was divided into three sections, faculty members' interview, students' interviews, and administrative staff's interviews, to make accessing easy and efficient.

Initially, the researcher sought to familiarise herself, in depth, with the data content by carefully reading and rereading the content of each interview and document, based on responses to the research questions. This process is time-consuming, particularly when there is a large amount of data as in this present study, which involved 30 interviews and a number of documents. During this stage, the researcher wrote additional information, ideas and notes on the back of the page for further reading for the literature review and to increase the researcher's background regarding emerging themes. For example, one code was about standards in e-learning, so the researcher read, in depth, about the impact of using these on online courses and the extent to which they are used in higher education. Reading about a code would result in looking for new codes relating to the research questions. Then, the researcher began manually highlighting the important text from the interviews, in different colours. In this, the researcher was following the recommendations of (Creswell, 2014) in the process data analysis, by concentrating on essential information related to the main themes and ignoring any data that was not relevant to the main research question. For example, some of the participants reported why they used e-learning, which was related to the likes of TAM theory, however theory testing was not one of the aims of this study.

Saldaña (2015, p. 3) described coding as being "most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and /or evocative attribute for a portion of language-based or visual data".

Before starting coding, the researcher kept the questions and objectives to hand, on hardcopy, as a reminder of all themes which fit the research questions.

During the coding stage, the researcher coded all the data equally, paying attention to all of the text and identifying the interesting points (Braun & Clarke, 2006) from the data regarding to main purposes and questions of research. The data was coded according to an inductive approach, which implies there were no specific theoretical frameworks that would be influenced by generating coding as the emergent themes are data-driven (Braun & Clarke, 2006). All-important text from the data was manually highlighted with coloured pins and codes. The researcher continued to read through all the data, looking for any implicit codes that might lead to key themes. To verify these iterative codes, the researcher made notes on index cards to ensure new coding could emerge. Subsequently, with each coding of the interview and documents, the researcher created a table in Word program, which includes three sections: the text from the original interview, the code, and themes and sub-themes (see Appendix 11). Searching for themes, the researcher gathered all the similar codes and wrote them on index cards and wrote them again in the emergent themes. Furthermore, another table was created for all similar and differing viewpoints mentioned by participants in the original interviews and documents as well. Some data carried an implicit code which took into consideration whether or not they involved any more details which led the researcher to extract the salient themes or any data which needed extra analysis. When no repeated codes appeared, the researcher realized that coding process had reached saturation point.

Clearly, salient and important themes were identified based on the emergence of repeated codes that were grouped under these themes (Luborsky, 1994). When a theme started to emerge, the researcher named it as concisely as possible in accordance with her knowledge of the dataset. All the emergent themes were also reviewed by the supervisor so as to minimise any mistakes or inductive bias.

Notably, one provisional theme was not included due to very limited information from the participants; according to Buetow (2010) in the thematic analysis process the most salient theme should be presented in identifying themes. All the emergent themes were strongly linked to participants' reflections regarding quality assurance in e-learning methods, by rechecking and reading across the original text, to ensure themes were consistently concordant with their perceptions as expressed in the interviews. Eventually, the researcher briefly mapped each theme under emergent headings that summarised them (see figure 3-1):

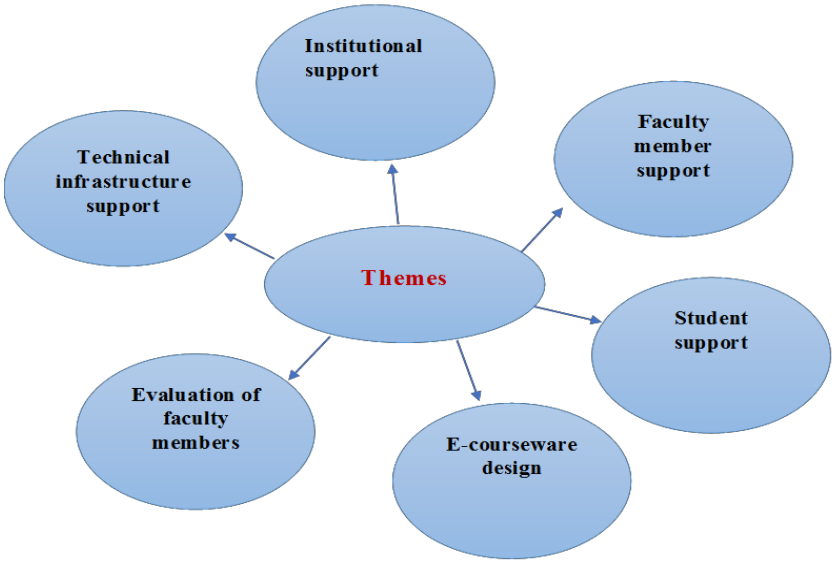

Figure 3-1. Map of themes

In some divergent and salient themes, the researcher used a board diagram to map all the sub-themes (see figure 3-2); for example, for the institutional support theme, which was the most important divergent of the themes, the researcher integrated information from one document in order to cover all the relevant information.

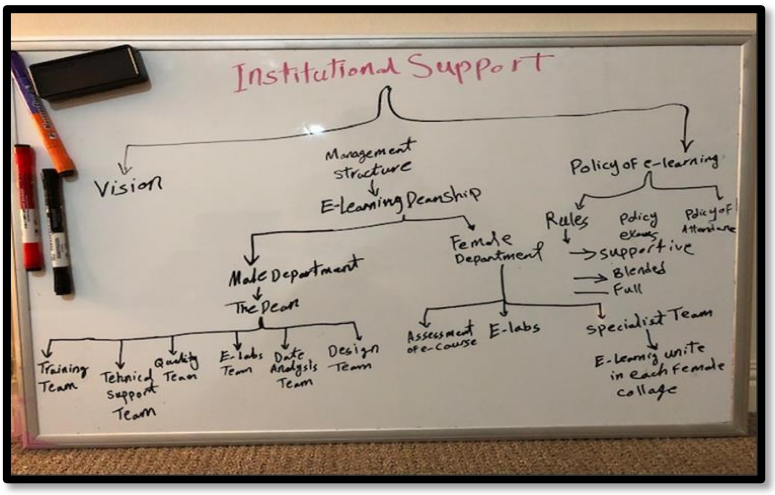

Figure 3-2. Diagram of the sub-themes of institutional support

The whole the data analysis process was time-consuming for the researcher, especially as it is her first experience of using thematic analysis. In total, the researcher wrote up an interpretive description of each named theme, with quotations from the original data which demonstrated the aspects of quality of e-learning in the KKU environment (see the Results chapter).

3.10. The role of the researcher

Having taught as a lecturer at KKU since 2014, where e-learning quality assurance was already applied, I carried out the data collection stage there, therefore it was difficult for my beliefs and opinions to be separated from the research process. Being a Technology lecturer at this university for six months provided me with the opportunity to obtain knowledge and skills in using the Blackboard platform. For instance, my experience of frequently using e-learning as support and attending training programs enabled me to become qualified in and develop understanding of the use of various activities in teaching my course. Indeed, these training programs encompass multiple content of e-learning such as the Introduction to e-Learning workshop, online-testing, and online homework. There were useful training programs for me in term of developing my skills in using Blackboard effectively and practising these skills with my students. During my teaching, I met some qualified trainers and e-specialists in the e-learning field and Quality Matters organization which inspired me to become a member in this organization in the future.

Importantly, I had experience in using Blackboard when I was a student at Marshall University in the USA. In fact, I initially thought I would be able to use Blackboard without any training,

however I discovered that there is difference between using Blackboard as a student and using it as an instructor. Due to my experience of using e-learning, I personally presented a workshop (the Introduction to e-Learning in KKU) at a high school in the region.

Further, the remarkable development of e-learning in the KKU environment made me curious as to how the University had developed a rapidly improved e-learning system and discovered the strategies of e-learning by adopting international standards (Quality Matters).

Due to all my previous experiences, my interest was stoked to explore, in more depth, quality assurance of e-learning and how KKU improved e-learning in a short period of time through different stakeholders. In addition, the researcher is considered to be a vital player in qualitative research according to Hatch (2002), in terms of making sense of actions, intentions and the understandings of those being studied.

As the researcher, I was involved in all the research stages, including gathering the information through documents and interviews conducted at different KKU campuses. During the data collection process, I faced one challenge in meeting the participants due to the time of the data collection being during the University's summer holiday. However, by contacting the e-Learning Deanship and Quality Development team directly I was able to overcome this problem and commence the interview process.

As a lecture who used a supportive e-learning method at KKU, I was involved in all basic uses of e-learning such as Blackboard platform, quiz, and posting final grades, therefore I already

had an understanding of such methods in advance; however my knowledge was limited regarding the whole picture of the e-learning system and its quality in the KKU environment. Thus, to obtain rich information, I conducted most of the interviews with different users (faculty members) of e-learning (blended and full e-courses). An important reason why I am still supportive users in e-learning method is that before I travelled abroad to continue my study in UK so, I didn't have time to undertake all the necessary development training programs to be a blended and full e-course user including, QMs training program. Fortunately, this research has enabled me to understand the next steps to become more qualified in e-learning systems and I hope one day to become a pioneer in using e-learning systems whether at KKU level or Saudi universities level. I continue to receive e-mail notifications of training programs being held, such as Google classroom training program etc.

According to (Berger, 2015) the researcher's background, including personal experiences and knowledge, can impact on their research, so the researcher should take responsibility for managing the balance between his or her beliefs and biases and the universal principles needed for research. Although my position as a lecturer at KKU, which allows me to access some university data, and my teaching experience and involvement in training program workshops, made participants willing to be involved in this study, three potential participants decided not to take part. This suggests that the researcher's relationship with the target field does not always mean participants will be prepared to engage. This also perhaps illustrates some of the tensions in being a researcher within one's own institution (Finefter-Rosenbluh, 2017).

One problem I faced in being an insider researcher was that, when I introduced myself at the beginning of the interview as a lecturer in Technology Education in the university, some participants made immediate assumptions about me. Some of them kept saying "as you know" when explaining information that I did not know; this was frustrating. Thus, I tried hard to clarify over and over my short experience in the use of e-learning (supportive user) at KKU and, importantly, that my research is qualitative in nature, so I need to dig deeply to obtain rich data.

Thus, I tried to be objective, I endeavoured to stress that my beliefs were outside of this research and aimed to assure the participants that their perspectives were dominant for obtaining the data for the purpose of this study and in the data analysis stage. This was particularly important when I conducted interviews with my colleagues. This perhaps indicates the difficulty (Ball, 1990) identifies in terms of achieving a compromise between an ideal self-as-researcher and an acceptable and possible self in the field setting.

Furthermore, I understand that choosing appropriate purposive samples (faculty members and administrative staff who are qualified or experienced in the e-learning mode) rather than random samples may affect this study. As a supportive user of e-learning mode at KKU, prior to the collection data stage I held the belief that less experienced users do not have sufficient information regarding the quality of e-learning development; nevertheless, I tried to be objective by carrying out three interviews with less experienced users (faculty members) at the beginning of the data collection stage so I did not gather much information that would respond

to my research question. Hence, I then focused on the participants (faculty members and administrative staffs) who had more expertise in e-learning and its quality assurance.

Summary of the study research questions, methods and analysis table (3.4):

Table 3.4. Research questions methods adopted analysis approach

Research questions	Methods adopted	Analysis approach
From the perspectives of faculty members, students, and administration staff, what support factors facilitate the development of quality of e-learning among higher education, and in what way do they do so?	• Interview • Document	Thematic Analysis
How has the University developed quality assurance in its online courses?	• Interview • Document	Thematic Analysis

3.11. Conclusion

This chapter explained how this study was carried out including, qualitative research design, single case study, the two methods of data collection, and the different study samples used to explore their perceptions of e-learning quality in the KKU environment. All these were

designed to be consistent with the underlying philosophies and methodological approaches with justification for each method and analysis process. This qualitative and interpretive case study using semi-structured interviews with all the participants, employed open-end questions and documentary analysis. Ethical considerations were presented to ensure informed consent and participants' privacy were met. The next chapter will present the findings resulting from the interviews and documents analysed.

4. Results

This chapter presents the themes generated from participants' experiences in using the e-learning system, as well as from documents, in the KKU context, which were formed from thematic analysis. The six themes are: institutional support, faculty members and administrative staff support, evaluation of faculty members, e-course design, technology infrastructure support, and student support. These are shown in the figure (4). These themes are demonstrated by quotations from the interview participants and documents, which aim to explain the essential points. Some of these themes include sub-themes. For instance, institutional support is a divergent theme which has three main sub-themes (figure 5). Some figures, quotations, and tables related to these themes will be presented to clarify some of the issues in relation to quality of e-learning. The following Table (4.1) provides an overview of the main themes and sub-themes.

Table 4.1. An overview of the main themes and sub-themes.

The main theme	Sub-themes
1. Institutional support	Policy regarding the use of e-learning Structure management. Strategic plan, goals, and vision
2. Faculty members and administrative staff support	Professional development training.
3. Evaluation of faculty members	
4. E-course design	Quality Matter Standards

5. Technology infrastructure support	Hardware tools Software tools
6. Student support	Institutional factor Technology factor Training factor

4.1. First main theme: Institutional support

Institutional support is a salient theme as recognised by majority of participants. It is a divergent theme as, three main categories emerged under this theme. These are the policies for e-learning, the management structure, and the vision for e-learning. Each of these categories has sub-categories as shown in Figure 4-1.

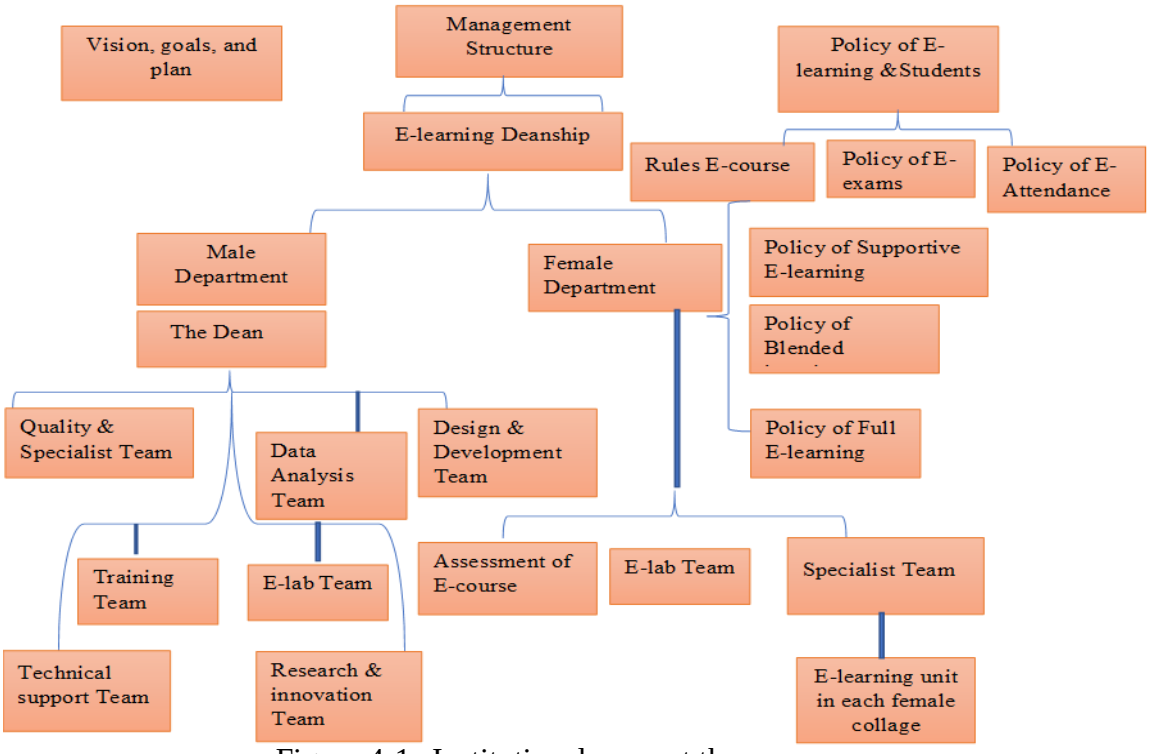

Figure 4-1. Institutional support theme.

One participant stated the university were concerned to provide this:

Yes, there is plan, goals, and vision of using e-learning in KKU. And anyone can read these goals and vision through KKU website and booklet.

4.1.1. First sub-theme: policies for using e-learning

4.1.1.1. Policies for using e-learning

The data from interviews and documents showed that the university has developed an explicit policy of using e-learning which covers policy of e-attendance, policy of using e-test, and rules e-course for faculty members and students.

4.1.1.2. The policy related to e-assessment

It is significant to establish a policy and guide for using online testing. Hence, KKU implicated guidance for e-assessment for any faculty member who intends to use it. There are a range of steps which should be followed before any e-test is set by a faculty member. One participant reported that they should go through different stage to get the approval of e-test:

In the case of e-test, we must get authority letter from my department first and then the e-learning deanship. Also, we must make reservations in the e-lab in advance, we must provide invigilators during the e-test runs, we must have a hard copy of test in case of technical issues.

As mentioned above, faculty members are required to follow the policy of preparing e-tests in order to ensure the quality of e-assessment for students. KKU offers an adaptable workstation environment for faculty members and students to conduct their e-test easily. Therefore, the e-

lab is equipped well with all equipment including both hardware and software. Participants stated that:

I realized that the using an e-test is useful way of reducing the workload in marking the test like a traditional test. Thus, I reserve e-lab to hold the e-test and it has all technology tools that help us for example, reliable Internet, workstation which includes desktop computers, comfortable seating, and partition between each desktop to avoid the cheating.

4.1.1.3. The security system of e-assessment

One of main concerns is to protect the e-test content during the e-test use. So, KKU activated multiple systems and trained faculty members how to use it. One participant indicated that:

Yes, we used different systems to secure the e-test content. The first system is a Question Bank system as faculty members we must apply it. In this system faculty members must write 100 questions and students must choose only 10 questions this helps the students are not in the same pages during the e-test time. This system available in KKU Blackboard.

The second system is Block Browser system. When we use this system, the student cannot access any web page. Another system which the intranet and the exam is available only on the network of the University.

4.1.1.4. Policy related to e-attendance for students

In this sub-category, most of the data was obtained from documents. E-attendance policy encompasses two types of e-course which are blended and full e-course either synchronous or asynchronous attendance. According to booklet called 'Rules for the use of e-learning' at KKU:

4.1.1.5. In case of blended courses

1. The percentage of the e-attendance should be explained to students in the first meeting during the first two weeks at the beginning of the semester.

2. The percentage of students' absenteeism in the classroom lectures is calculated as per the rules of the Admission and Registration Deanship.

3. The student is considered absent if he does not do any online activity of the course within the limited period.

4. The student is prevented from taking the final exam, if his or her absenteeism is 25% of the credit hours of the course.

4.1.1.6. In case of a full e-learning courses:

1. The work unit is considered on weekly basis regardless of the credit hours of the course or the number of lectures, if it were face-to-face.

2. The student is considered to be absent if he or she does not do any online activity within the limited period; and his mere log in to the course does not deem him as present.

3. The student is precluded from the final exam if his or her percentage of absences is 25% of the number of the course weeks.

Similarly, one participant also mentioned:

We have a clear plan and guide through booklets called 'Rules for the use of e-learning'. This booklet sets out the policy of e-learning in terms of goals, definitions, rules, teacher and student rights, attendance and absence of electronic courses.

Some faculty members use e-assessment as a way to ensure the students attended e-lecture and student engagement for example, participant stated that:

I always put a Quiz question in the end of virtual lecture to make sure students attended. I always ask them some questions and they have discussion about it with each other. In addition, they can ask any queries through the forum of e-course. I feel that this is useful way to encourage them.

It is considered mandatory that the faculty members must clarify the policy of student engagement in e-course syllabus participant pointed that:

I must explain all the policies of the e- course includes, e-tests, and e-assignment to the student all these things I upload on the (START HERE) Icon in my e-course syllabus.

4.1.1.7. Rules related to courses

KKU offers three types of e-learning: supportive learning, blended learning and full learning. All three types of e-learning are represented by the participants of this study. Supportive learning is used to facilitate the learning process in terms of uploading the traditional course syllabus in Blackboard and using e-mail for any announcements Thus, the researcher did not conduct interviews with faculty members who only used supportive learning. However, some participants use all the types of e-course. For example:

I started using supportive e-learning in 2013, then I took a blended course, and in 2014 I took a full e-course. I am now doing a full e-course. I applied different strategies for each one.

Another participant stated that:

I taught a full e-course in Islamic Culture which was designed under Quality Matter standards.

The policy of all types of e-course for faculty members was set out in a booklet called 'Rules for the Use of e-Learning'. All participants indicated that they received a clear policy before undertaking e-learning. Some participants described this policy as a beneficial way of increasing understanding and comprehension as to how to use each type of e-course and overcome any potential difficulties. In addition, this booklet is a good reference for faculty members if they intend to teach e-courses. It addresses all policies in terms of using supportive, blended, and full courses, and it is available on the University website.

4.1.2. Second sub-theme: Management of structure

This category consisted of only one sub-category, which demonstrated different sub-categories. Also, these sub-categories presented the management structure of the e-learning deanship. According to the booklet, one of the University's strategies is implemented e-learning deanship throughout the university. The e-learning deanship organized its structure, dividing it into female and male departments, which each included a quality and specialist team, design and development team, training team, data analysis team, technical support team, and a research and innovation team.

Participants described the e-learning deanship as a hierarchical management structure which is composed of the dean and his deputy and many teams which specialize in different functions, and which support the female colleges. In this respect, participants were provided with a document which showed the hierarchy structure in the e-learning deanship.

Some participants described the e-learning deanship as a constructed development and quality team, which acted as the main vehicle which assisted faculty members to develop their competency in e-courses and working with training teams. For instance, one participant stated that:

> We established a development and quality team and we always incorporated e- learning with deanship. In my opinion, this team plays a major role in ensuring the quality of e-courses according to Quality Matters standards. In addition, the quality team offers multiple services that support the e-learning deanship, enabling it to work efficiently. Likewise, the training team trains faculty members in how to apply QM standards in their e-courses. Ultimately, they work together to achieve their goals.

The researcher understood from these participants that the quality team has a positive effect on them. It is the most significant team for the implementation of quality activities at e-course level and improves these activities.

The e-learning deanship set up an e-learning unit at university level, including a female college. This unit has different tasks and qualified human resources. The majority of participants were satisfied with the role of e-unit in enhancing their teaching. For example, according to one participant:

> In fact, the e-learning deanship plays a significant role in providing all the female colleges with qualified female specialists to train and monitor the progress of faculty members and students. Ultimately, they work together to achieve their goals. I believe that this is very good because they develop their skills in the e-learning system.

One female participant concurred that the role of the e-unit underpins the faculty members' progress in training and evaluating their performance:

> Currently, there is a specialist in e-learning unit in each college whose task is to follow the faculty members in terms of designing e-courses or modifying them or hiding icons and links to students or arranging some things, but she is not involved in the content of e- courses.

4.1.3. Third sub-theme: Vision

Most of the participants (faculty and administrative staff) referred me to the booklet that is available on the KKU website, which contains all the visions, goals, and strategic plans in terms of e-learning method; for instance, in response to the question, Is there any vision or specific plan regarding when KKU intends to use the e-learning approach and if so, what are they? According to the available documents, KKU's vision of e-learning describes how it intends to develop this new teaching method in the long term. On the KKU website it makes all its stakeholders aware of its planned changes to make e-learning available. KKU's e-learning goals and strategic plans are clearly connected to this vision, with notable effort shown in preparing the plans and all internal goals to achieve its actions. For example, Kotter's (1996) framework was employed by KKU to build the strategic plans and goals to implement its e-learning system (the goals and action are presented in the Discussion chapter in depth).

Ultimately, the results of the participants' opinions on the theme of "Institutional Support", was a beneficial support to the faculty members. The University sought to clarify its policy of using e-learning both in female and male colleges. Therefore, the decision makers distinctly formed an e-learning policy that overcomes obstacles to developing quality e-courses. Similarly, great care was taken with the management structure of the e-learning deanship to ensure that every team is clear about which responsibilities are expected of them.

4.2. Second main theme: Faculty members and administrative staff support

This was one of the main themes extracted from the participants' experiences of improving the quality of their skills using an e-learning system, and their use of different training methods in order to benefit from the e-course. In addition, this theme represents how participants described each professional development stage of the training program. In the following figure (4-2), the researcher uses a theme map to show how the faculty members improved and developed themselves in e-learning through the King Khalid University Learning Certificate (KKU-EC).

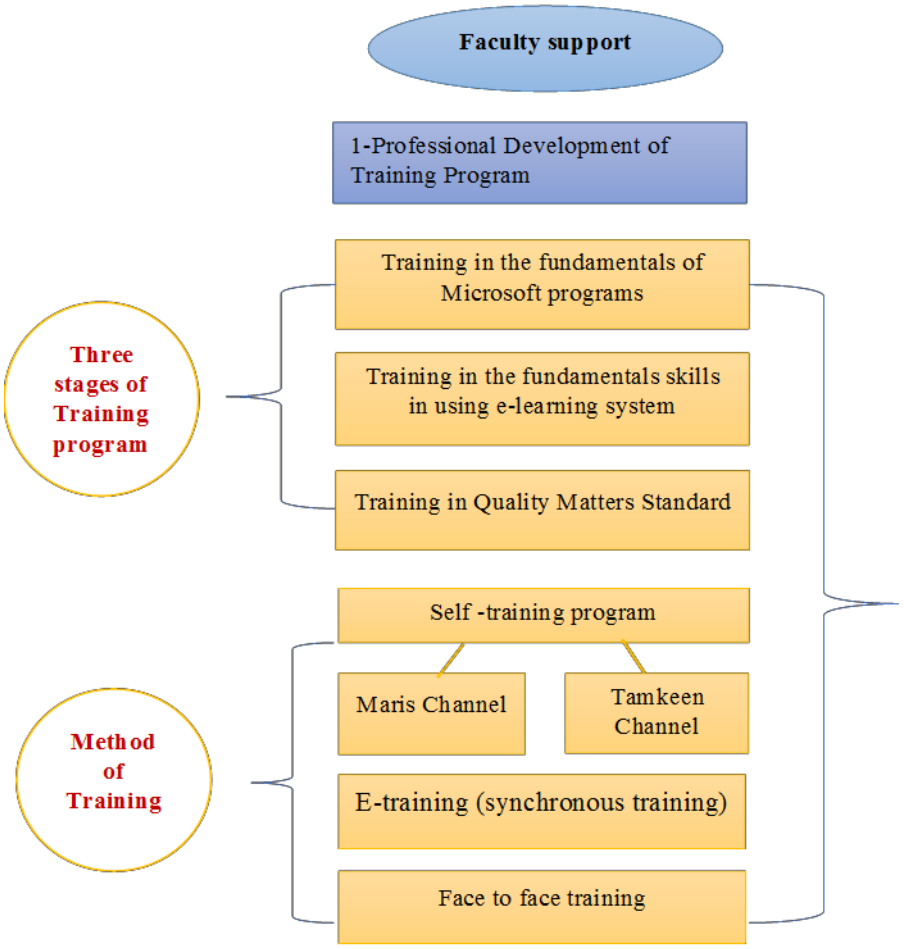

Figure 4-2. King Khalid University Learning Certificate (KKU-EC).

The University has had some foresight to identify what is needed and what is not; thus, the Dean of e-Learning is very aware of the challenge of change. In this respect, all participants

referred to the impact of the role of the Dean of e-Learning, who took the initiative to identify the needs of faculty members and students in the e-learning system. For example:

> In the beginning, in 2006, e-learning was not used extensively, but the Dean of e-Learning sought to encourage the faculty members and students. He visited most of the colleges and he was willing to arrange meetings to determine their needs including training programs and human and physical resources.

Before commencing the use of e-learning, the University first paid attention to disseminating the culture of e-learning amongst faculty members and students in different ways. The University started by emphasizing the importance and advantages of e-learning. One way was to spread flyers which set out the concept of e-learning and its importance in the learning process, as well as to make the flyers available online. Some participants reported that:

> At first, the University also started publishing e-learning flyers for faculty members and students to interest them in the new method of learning.

Then, to introduce faculty members to using e-learning system, a number of orientation sessions were held in both female and male colleges. These sessions were introductory meetings which defined the notion of e-learning, Blackboard, and the vision and goals of e-learning in the learning process. One female participant expressed her feelings, saying:

> My experiences during this new method, was that I was initially afraid of using the e-learning method, but the e-learning Dean encouraged me and my colleague so much to attend orientation sessions so this method became familiar to us.

This appears to have been a very useful way to raise the culture of e-learning among faculty members and encourage them to overcome their reluctance of fear of using e-learning. Also, it familiarised them with the new method in advance.

> Before applying e-learning, we raised faculty members' and students' awareness of e-learning with different sessions such as the concept of e-learning and its advantages.

During these orientation sessions we distributed questionnaires in paper format to faculty members on the use of ICT in general.

Another participant concurred:

They gave us a questionnaire about our computer skills and then trained us to use the e-learning system.

Similarly, a participant stated:

In the beginning of using e-learning we had some faculty members who lacked experience in using Blackboard, its tools, and downloading lectures. Also, some faculty members had less experience in using software programs.

As seen above, based on the information collected from the questionnaire about faculty members' and administrative staff's skills, the University realized that the level of faculty members' skills and knowledge of ICT was limited. Therefore, the University developed an action plan for a professional development training program each academic year, which was a turning point in improving and enhancing faculty members' skills such as all aspects of Blackboard and e-course instructional designs.

In the light of conducting a professional development training program, the great majority of participants expressed clearly that they underwent a series of stages in the training program. For instance, according to one participant:

This is a good question, nine years ago we went through a three-stage training program. We trained faculty members in basic software skills such as Microsoft Office programs including Word, and PowerPoint. After that, we taught them the fundamentals of e-learning systems such as Blackboard tools, virtual classroom, and, online tests. In these stages, we allowed faculty members to learn by asynchronous and synchronous training. We trained them in how to apply quality standards in their e-courses with Quality Matters criteria.

In the first stage, the training program mainly targeted faculty members and administrative staff, who were over 44 years of age and were not able to use fundamental Microsoft Office

programs professionally. This training program was offered for a time until the University developed it, making it more advanced such as long document.

Interestingly, the second stage played a major part in greatly improving faculty members' and administrative staff's skills. This was an intensive training stage which covered a range of topics, such as Blackboard system, online-testing, e-homework, e-quiz, and virtual classroom. The participants compared their levels of competence and how much more motivated they became to contribute e-learning in their teaching practice. One faculty member said that:

> In the past, I had no idea how to use an e-learning system in my course; conversely, now with the massive training development programs which were implemented by the e-learning deanship, I can use this new method in my teaching practice effectively and I engage much more than before.

The Quality and Development team and the Training team are concerned with training new faculty members. Therefore, any new faculty members are required to attend training program in basic e-learning systems.

> Indeed, when I started my work as lecturer at the University, the Department kept sending me e-mails asking me to undergo training programs which covered different digital skills.

The training programs were delivered using different methods. The first method was face to face training which trained faculty members inside the lab and they were required to attend it in person, which was perceived as a barrier that hindered them from taking up training. They called for a solution to overcome it or reduce the extra work. This obstacle was described by a participant as follows:

> In my previous work as an e-learning specialist, it became clear to me that e-learning may be an additional burden to faculty members. The faculty members have to work office hours and this may involve overtime for them.

Another similar opinion was:

> Yes, it is, because it takes a lot of time and effort. It takes time to create the e-curriculum, e- tests, and apply quality standards, however it is not a waste of time.

These two views suggest that some faculty members do not have enough time to attend such training sessions due their existing workload which includes administrative task. Thus, attending face to face training increases their workload. The e-Learning Deanship realized that this contingent factor (workload) should be eliminated. Moreover, alternative methods were carried out by the e-Deanship to enable faculty members to benefit from professional development training programs. One administrative staff confirmed that:

> In fact, we realized office hours and course load on faculty members are extra work so we developed online training to help faculty members to manage their time and they can attend training from different places at branches of the University.

On the other hand, the majority of participants believed that e-learning was a useful and attractive part of the e-teaching process and would enable them to become trainers and distinguished faculty members in their field.

> No, I do not think it is an additional burden because I have used both methods of learning and I believe that e-learning is much better.

One of the training methods was Tamkeen channel which was provided through the University website. This is the main portal for e-learning at the University and there are short educational videos which enable faculty members and students to learn new information. Furthermore, the e-Deanship provided this e-channel as self-training so they can learn how to use Blackboard and the virtual class in an asynchronous method. It is important to mention that the vast

majority of participants expressed a range of views about the variety of e-training methods and how these positively affect their performance in e-courses. For instance, one participant noted:

> As you know the Deanship of e-Learning provided training courses in Blackboard and its tools for faculty members and students. It also offered an e-channel, Tamkeen channel, that covers different topics. It really excited me to learn more and benefit from Blackboard in managing my e-course.

Another participant appeared to concur with the above view:

> They continuously encourage and support us to make use of Blackboard. They are influential in that they have highly qualified personnel who can answer all questions at any time.

At the same time, this e-educational channel was a useful way to help trainers to respond to faculty members' concerns and reduce their workload.

> If any faculty members ask us about using e-tests, e-homework, and Blackboard tools we immediately direct them to Tamkeen channel.

Another training method is the Maris channel which is different from Tamkeen channel in that it allows faculty members to become qualified trainers in e-learning systems. In addition, it is a beneficial resource channel that provides comprehensive knowledge and skill to practise Blackboard tools at an expert level. This channel delivers courses in both synchronous and asynchronous ways. In each training session faculty members are required to take a test on what they have learned from the session and they obtain a certificate. This certificate is accredited by the e-Learning Deanship and is an essential requirement to be a trainer in this field. One participant explained what the Maris channel provides in terms of training courses for faculty members to increase their competence.

I took the Maris program three years ago, which explains the fundamentals of Blackboard tools, how to post your personal information, ways of communicating with students, whether to record e-lectures on PowerPoint or Word, and how faculty members teach using Blackboard and how to manage every section of e-course materials.

Another participant explained what Maris provides:

Maris is e-recorded lectures through Blackboard and at the end of it I took test to pass four courses, including Quality Matters standard. The Maris certificate helped me to be trained.

The last stage of the training program was Quality Matters Standards training. This stage was more advanced than other methods in focusing on training qualified faculty members and administrative staff to design international standards in e-courses. This means that faculty members were more competent and well-prepared to move on to the higher stage of training, Quality Matters standards, and practise these standards in their e-course.

From my experience, before I started the QM standard training program, I first undertook the Maris training program, which included different topics in managing e-courses such as how to use virtual class and recorded lecture. During this training program, I submitted all the required assignments and when I passed the exam at the end, they give me a completion certificate.

The majority of participants indicated that they could not take this training unless they completed the second stage of training. Enrolment in the Quality Matters training program required intensive skill and knowledge in mastering the e-learning system.

I believe that the Deanship of e-Learning continuously provides us with professional development training courses. In 2010, the e-Learning Deanship established the Quality Department which encouraged us to apply quality in the e-course. One of the main tasks they trained us in was how apply QM standards, which helped us to become a member of an international organization.

This opinion explained that the e-Learning Deanship was concerned with ensuring quality in e-learning, particularly the quality of e-courses. Therefore, the Quality Department was

established within the University. The Quality Department was in alignment with the e-Learning Deanship mainly to practise quality assurance in e-learning. The Quality Department had its vision and goals which focused on several tasks. One important task was to increase the awareness of applying QM standards in e-courses and train faculty members step by step in how to apply these standards in their e-courses. Some participants positively expressed the importance of effective e-courses and the role of the quality team towards them:

> I think that it is an important thing to have effective e-courses when quality assurance is applied through Quality Matters standards. I personally like using QM standards in my e-course as it helps me to increase the quality of my e-course. Also, the Quality Team helped me a lot to achieve these things. Trainers and managers are very knowledgeable and helpful. They usually give us many consultations on the quality of e-courses.

QM standard training caused some faculty members and administrative staff to become peer reviewers, master reviewers, and online facilitators. Some participants stated that, for instance:

> I was trained by the Quality Department in different courses in QM. I finished all the training sessions and I obtained a completion certificate. I was committed to the requirement of each session which included full attendance and finishing all tasks required. Recently, I have become a peer reviewer and master reviewer in e-courses under QM standards.

Another two participants stated that:

> Yes, I am a peer-reviewer in a QM organization. I took different training courses to attain this position in Quality Matters. You have to take a basic 8-week standards course through virtual class and then a course in peer-review.

> From my experience in QM, I hold a certificate from the University which qualifies me to build and teach e-courses according to Quality Matter standards. Also, I am an accredited peer-reviewer and face to face reviewer in QM organization which is sponsored by the University. I always train faculty members and administrators in how to apply QM standards in their e-course.

It was found that there are strong beliefs that QM standards training plays a vital role in developing quality design e-courses. Most of the participants gradually built their skills in designing e-courses through the Quality Matters training series. This is especially valuable training for faculty members who want to enhance the quality of their e-teaching and become accredited trainers in the University. For instance, one participant was qualified in training QM standards and applying the e-course:

> I was fortunate to be an assistant lecturer in this university I gained a lot of skills from these training programs, I found myself at a high level that allowed me to be a qualified trainer in QM standards.

In addition, this stage is divided into three parts, the first of which is the peer reviewer course. During this course, faculty members are trained to apply QM in an e-course and to practise constructive criticism to help others to improve the e-course. At the same time, they are encouraged to become accredited auditors of QM e-courses at university level. The second stage, the master review course, aims to enable faculty members to become accredited experts in reviewing QM e-courses. This is followed by a third stage, online facilitator, which provides workshops in designing e-courses under QM standards that enable faculty members to become accredited trainers in QM organization and trains them in how to prepare for workshops.

It was found that during all the development training program stages, faculty members were rewarded in different ways. When the University began using e-learning systems, it encouraged faculty members and administrative staff with incentives and promotion. Most likely, the participants who used e-learning received some rewards such as a monetary prizes, iPads, and

symbolic awards. Furthermore, the University chose distinguished faculty members to be pioneers and trainers in e-learning which stimulated competition with other faculty members both inside and outside the University. In this regard, a number of faculty members believed that rewarding and promotion were found to be good motivation to learn and continuously enhance their knowledge. For instance, according to one participant:

> When e-learning was first introduced in 2006 it was not used extensively, but the Dean of e-Learning sought to encourage faculty members, including the provision of training courses, financial and symbolic awards, and iPads. The University gave monetary prizes to two of my colleagues. They won an e-learning competition at higher education level. Now, they are pioneers in using e-learning at university level and peer reviewers in QM standards.

Another participant indicated the same view in terms of how the University promotes members:

> If any faculty member is distinguished in his/her performance in using e-learning, we usually promote them to specialist in e-learning and trainers to train faculty members and students in using e-learning systems.

As a consequence of the professional development training program, which was conducted by the University, there was an increase in e-learning quality in faculty members' performance. This was clearly evident in how they acquired higher skills, and they from the improved level of skills which they received in this program. Looking back at the previous skills level of faculty members, their current performance, and high positions in international organizations (QM), there has been a positive effect on the faculty support theme that constantly helps to improve and enhance the quality of e-learning. Moreover, the quality of e-course design increased when there was concern from the Quality Department, which played a major role in deploying quality assurance amongst faculty members. However, two participants stated that

their workload increased when they began to use the e-learning system, therefore the University attempted to overcome this obstacle by facilitating different training methods.

4.3. Third main theme: Faculty Members Evaluation

This theme is classified as a holistic view which groups multiple perspective of stakeholders (students and administrative staff) in terms of how they carefully evaluated faculty members' performances in using the e-learning system over an academic year. It includes participants (faculty member) experiences in e-learning practice evaluating in order to develop the quality of using and delivering the e-course. This indicates that faculty members are evaluated by students and administrative staff in their e-teaching. Importantly, the deanship uses the Quality Matters standards model to evaluate faculty members' progress in overall design and teaching of e-courses, to ensure their quality. Therefore, the deanship of e-learning has located e-specialists in each college, and one of their managerial roles is to monitor faculty members' progress in their use of e-teaching.

One participant stated:

> I believe that the deanship of e-learning follows up faculty members' e-courses. it is essential to improve and ensure a high quality of e-learning practices. The e-specialist always monitors faculty members in terms of how long they use e-learning and whether they are engaged with students frequently during the academic year.

From the interview data, the evaluation of faculty members in terms of e-courses is clearly performed using various methods. The first one is by an e-specialist who has the right to access

faculty members' e-courses. This evaluation focuses on how faculty members practise QM standards and how actively interact with students. For example, faculty members should post their syllabus and contact information. The syllabus should contain the e-course rule, in terms of course activities, grading policy, what kind of communication should be used such as virtual class, discussion forum, and Wikis. If these communication tools can be used, the e-specialist monitors the minimum standard and achievable standard of faculty members' performance, if they activate them or not. Within this area, on participant asserted:

> I was evaluated in my e-course (Linguistics) by an e-specialist, who was able to access my count in Blackboard, and they monitored my activities and engagement with students. The e-specialist assessed me during the term and sent me feedback on my communication with students and kept me informed.

As continuing evaluation, faculty members who used full and blended learning were evaluated twice time per term. Also, faculty members who used e-learning as a supportive way were evaluated in terms of engagement with students; for instance, if they explained sufficiently the regulation of the traditional course in the syllabus and posted it through Blackboard. One participant who uses it only in a supportive way stated that:

> I use e-learning in a supportive way which helps me in my traditional course (Accounting). The e-specialist assesses me in posting the traditional course information in the Blackboard including, syllabus, learning objectives, and announcement for Quiz or homework. Also, the e-specialist assesses how many times I use it and whether I am in communication with students. At the end of the term, I get my grade in my use of the e-learning system in a supportive way.

Another opinion was that continuous evaluation assists faculty members to improve the quality of their e-course. Moreover, it clarifies where a faculty member's performance stands over the

running of e-course. This shows that the deanship of e-learning is following up on faculty members, based on their activities within the e-course and effective use of Blackboard tools. Eventually, their grades were determined in whether they accomplished their best practices and goals.

> Well, this evaluation form shows where faculty members succeed in any part or icon of Blackboard or if they lack in using any of its icons. If I fail to use any icon, they warn me by e-mail to use it correctly and effectively. According to my regular evaluation form, I attained high grades in my use of e-learning, which helps me to ensure the quality of e-course.

In relation to the quality of delivery of the e-course and interaction with students, one way of communication was mentioned by some participants who described the concern of the e-specialist in ensuring full communication between students and faculty members in an e-learning environment. These views describe how faculty members' performance was evaluated:

> I would like to add one important comment. The e-specialist assesses me during the term by sending the feedback regarding my interaction with students and keeping me informed. For example, there is a forum called Acquaintance Forum which must be used in all e-courses. If this icon is not set and activated by faculty members, the e-specialist will warn him or her.

Another participant considered the evaluation process to emphasise better practice of QM standards, stating:

> As I am a specialist in e-learning, I always evaluate faculty members' performance according to QM standards. One of the main QM standards is learner interaction and engagement, so here I follow up whether faculty members have activated the interaction tools such as the virtual classroom, discussion forum, and e-mail e-course. In case, if there negative note on the faculty member 's performance within three

weeks I send an e-mail to warn them to modify this mistake and avoid it and give them some more time.

Based on previous views, it was evident that the continuous evaluation process ensured faculty members correct their mistakes in their performance and conduct themselves properly. This process leads them to enhance the quality of using these standards in e-course activities.

However, this can be very time-consuming which increases the workload of faculty member as they have to repeat their work to ensure standards are being applied in the best way. One faculty member mentioned that:

The e-specialist sometimes informed me I did not use a standard correctly, for example, I did not write the reference in one of the materials that I provided in my lecture. Another time, I forgot to activate the e-mail course with my students, so I had to go back and post all the references I had used. It took a lot of time to modify the mistakes that I had made.

Regarding the e-course review, the university implemented three kinds of reviewer to improve the quality of the e-course. To meet all required standards to obtain QM seal, the e-course must be reviewed internally by the subject matter reviewer, the e-specialist in QM standards, and a technician at university level. Indeed, these specialists are essential to evaluate every required standard of e-course that covers learning objectives, instructions, support learner, course plan, and accessibility. It is evident from participants' opinions that this evaluation is important in helping faculty members to develop their skill and determine the extent to which the standards are useful in their e-teaching. For instance, according to one participant:

My e-course was evaluated at the university level of e-courses. It went through three reviewers (review system) two technicians and the third a specialist in content subject matter. I think that the evaluation stage is very important to show your weaknesses and strengths in your e-course.

Another participant who work as peer reviewer shared the same opinion:

I measure my e-course by conducting an internal peer reviewer of my course utilizing the QM Rubric. Also, I am a certified peer reviewer. As peer reviewer I use the QM Rubric to critique and write helpful recommendations for other courses using the QM Course Review Management System (CRMS).

Also, the following participant explained how e-courses were reviewed after these standards were applied:

I applied all eight essential standards in my e-course. I think that Quality Matter is a continuous improvement model for assuring quality of online and hybrid/blended courses through a peer review process. There are three main components, QM Rubrics, Peer Review Process and QM Professional Development, and I tried to implement all three components.

As mentioned, QM standards contains eight general standards, and under each general standard there are specific standards. Some participants pointed out that a faculty member should achieve at least 85 % of these standards to ensure the quality of e-course structure. For example:

I applied the quality standards in my e-course and there are many standards. If the faculty members achieve 85% of these criteria in the e-course they can pass this review.

Improvement can be seen to correspond to the result of evaluation for faculty members using QM standards. E-course evaluation results indicate that faculty members accomplished 23 standards which covered course introduction, learning, assessment, instruction, learner support, course interaction, course technology, and accessibility. Importantly, faculty members were not required to apply all 42 standards because this was considered to be too much work for

them (see Appendix 12) which shows the result of evaluation of using QM standards. In this regard, this e-course was qualified to receive QM certification to meet the quality of e-course design.

Interestingly, self-evaluation is also seen to offer a clear picture of faculty members' performance when using QM standards. Through it, they can examine their development and are encouraged to improve and enhance these standards within the e-learning environment. One faculty member reflected using self-evaluation:

> Self-evaluate after every e-course lets you know where you stand. If you are unable to fare well in a particular course, you have the option of redoing the course until you get it right.

As one of the duties of quality assurance, the faculty members were committed to submitting a report of the e-course at the end of term, in order to further develop this e-course. This report demonstrates all the details of the course journey during the academic term, with students' outcomes, and this procedure is applied in an e-learning and a traditional learning environment. One participant indicated that:

> At the end of term, I need to submit a report course file that includes all my work, such as my e-course activities and samples of the e-tests and the results of students' mid-term and final exam. I have done my duty in the e-course and in the traditional course in terms of the course development and quality assurance process.

As university policy in the e-learning environment is to ensure students' satisfaction, the students have the freedom to give feedback about faculty members' teaching. This means the faculty members should provide a feedback form and post it on the Blackboard or hand it out to students at the end of the term. Thus, the students can evaluate

faculty members' performance in teaching competence and the extent of their interaction with students in terms of responding to their queries, whether in e-mail or in the virtual classroom. As noted by one faculty member:

> I ensure my e-course goals and my performance are met through assessment from students and e-learning deanship I asked my students to assess my e-course which help me to improve the quality.

One participant explained that it is university policy, regarding evaluation of faculty members, to withhold the student's name from the teacher when informing faculty members of the outcome of the evaluation. Hence, students were able to freely evaluate their instructor's performance and e-course content:

> My instructor asked me to fill in a feedback form at the end of term. I could not see my result in this course until I submitted the feedback form. Also, my instructors were not able to see my name on the feedback form. It is my right and freedom to write my feedback.

It was found that QM standards works as guidance tools for e-specialists to evaluate faculty members' performance. In addition to that, faculty members are evaluated through different methods including self-evaluation, students' feedback, and by an e-specialist.

4.4. Fourth main Theme: E-course design according to Quality Matter standards

This theme is prominently seen by participants to be an underlying supportive factor related to the quality of the e-course. It represents how participants described their experience of improving the design of e-courses and blended courses using Quality Matter standards, and the ways in which the courses were Quality Matter ensures that quality assurance is met. This theme also highlights some of the obstacles to using QM standards, some of which were being managed by the University. The theme discusses how participants transferred what they learned

from the Quality Matter training program to the rest of their e-course or blended course, and how it drove them to get the Quality Matter seal. In addition, this theme exposes the impact of interaction in e-learning through the virtual classroom and how the participants benefited from it with students. According to one administrative staff:

> We used an international organization called Quality Matters (QM) to help faculty members apply quality standards in their e-courses. It is considered as a pioneer with a wealth of experience and leadership in e-course quality and I think it is an outstanding development of the University to take this step to ensure international quality standards are met in E-learning.

The University started working with QM to improve the quality of e-course. In order to implement these standards, faculty members first needed to receive a training program in QM and join the organization. When the University started using QM in designing e-course these standards were delivered in English which posed a major challenge for faculty members. Only a few faculty members who speak and understand English can learn these standards. One participant reported that:

> I was really happy when the University implemented QM standards to help us to design our e-course, but unfortunately, I could not benefit from them because there were in English. My major is Islamic learning, that why I did not need to learn English widely.

However, this challenge was not an issue for faculty members and administrative staff who could understand English, or for international faculty members. For example, one stated that:

> The training program in QM standards was first given in English. I was one of the faculty members who took these courses and we had the opportunity to take it again if we did not pass it.

As mentioned earlier, language was an extremely important barrier to these standards being learned, therefore it was necessary for the courses to be translated into Arabic.

It was University's responsibility to seek to overcome this barrier, thereby making QM standards available to every faculty member and all administrative staff. Consequently, the University obtained permission from QM to translate these standards into Arabic; thus, they became a very useful resource in designing e-courses and blended courses. One participant pointed out that:

> When QM was first adopted, training programs were provided in English, so it was difficult for non-English speakers - and you know most of the faculty members and administrative staff speak Arabic language - thus, we tried to solve this problem by translating the programs into Arabic after obtaining permission from QM.

According to participants' responses, Quality Matter standards supported faculty members in generating significant impact in applying quality assurance in their full e-course and the blended course, which helped students to learn and engage with their instructors. Thus, the participants considered that the QM standards were beneficial in helping them to design their course. One participant asserted:

> I believe that QM criteria help faculty member to identify the most important areas that must be built, and to design e-course which enable the students to deal with the content of the e-course easily.

Another participant held a similar view on the importance of taking QM standards into account to ensure optimal e-course design, stating:

> I would say that It fosters a culture of continuous improvement by integrating QM standards and processes into organizational plans to improve the quality of online education.

In relation to assuring quality in the e-course, the faculty members were able to create a useful and powerful online-course aligned with QM rubrics which included eight standards, course

overview and introduction, learning objectives, assessment, instructional materials, learner interaction, learner support, and accessibility. It was apparent that all faculty members perceived these general and specific standards as guidance to create their e-course effectively. One replied:

> Yes, I do usually follow the Fifth Edition (2014) of the QM Rubric to ensure the e-course is constructed and taught professionally. It consists of eight general standards and 40 specific standards. I can say that these standards make my e-course more attractive and accessible to my students.

By introducing QM standards in e-course methodically, it is recognized as one of the processes of quality assurance program in the University. In this regard, the participants reported that following these standards had a positive impact on improving faculty members' pedagogical skills, which helps to build quality assurance in their e-course and blended course. It increased monitoring of faculty members' the performances in the e-learning environment, whether these standards were met or not. In addition, practising these standards enabled faculty members to achieve successful outcomes and reduce negative outcomes from the e-course, by providing a qualified e-course which encourages students to learn effectively.

> When I set my e-course I must apply essential Quality standards (QM) which helps me to improve students' learning outcomes from the course as well as to identify key performance indicators for measuring program learning outcomes.

A similar opinion expressed was that:

> For me, it all boils down to course design which is critical to the quality assurance process as it affects the course delivery and overall success of online and blended learning programs.

Each standard was linked with the quality assurance process, with participants describing their experiences of using these standards in order to meet quality assurance in their e-teaching practices. For instance, creating course specification according to the course overview standard was identified as meaningful guidance which clarifies the e-course for students. This shows that applying this standard makes the course clear and easier for students and provides faculty members with a clear plan, in advance, of how precisely the e-course will be achieved. According to another participant:

> I believe that QM standards have made my e-course more useful. I teach two e-courses this semester based on QM standards. One aspect of the quality assurance process involves the description of the e-course providing clear learning objectives, whether I will teach this e-course by dialogue or discussion, and whether I will give the students projects or research. I must state the policies of my e-course. They monitor us to ensure we adhere to the e-course specification and syllabus for the hybrid module.

One QM standard is the course overview standard which includes the Start Here section that enables faculty members to begin their e-course structure. It is also important for faculty members to welcome the students and introduce themselves at the beginning of the e-course. Most of the participants reflected positively on the Start Here section. Interestingly, one participant described this section as 'drip irrigation' which takes students around the e-course step by step saying:

> I consider the Start Here icon in e-course to work as the drip irrigation system process to make e-content clear and easy. Through it, I can post a description of my e-course. I welcome them, I give a brief of myself and clarify the policy of my e-course. Thus, students are able to access all the details of the e-course such as Welcome Message, course description, learning outcomes assessment, and grading.

In relation to accessibility, participants reported that one QM standard was concerned with making the style of e-course content attractive, which helps to hold the attention of students during the e-course. In achieving this, the faculty member uses a suitable font size and various colours for body text, which makes the content of the e-course more readable. For example, according to one participant:

> I designed an attractive form which includes the right theme font, bold or normal font, and theme colours to produce a good e-course design.

Another participant shared a similar experience of applying some standards, for instance, in uploading the syllabus it is important to explain the instructions of the e-course for students:

> I work as a peer reviewer, so I apply most of the QM standards in my e-course, Accounting. In fact, there is a standard for forums, a standard for the icon Start Here, a standard which relates to the e-course syllabus, and a standard for the establishment of websites for students if they have to share applications.

In one document published by (Naim & Bashir, 2016) the table (see Appendix 10) is a clear example of an e-course syllabus which was taken from a blended-course that was delivered using two methods (70% face to face and 30 % online). It describes how faculty members following a course overview and introduction standard presented in the form of the syllabus should be involved.

In terms of practising different e-tools features during the actual e-course delivery, based on course technology standards, it was found that the participants reflected positive experiences of using the virtual classroom in the e-learning environment.

This indicates that the virtual classroom works as a collaborative tool that offers additional learning materials to students and enables them to interact with each other as well as with the instructor. Also, the students can reiterate the content of the course at any time. At the same time, the use of this e-tool by faculty members helps them to save time in terms of recording the lecture and therefore they are available for students after they finish the virtual meeting. One participant stated:

> Virtual classes improve the process of communication between students and faculty members during the time of the lecture. I think that virtual classes are the best for me because I can record the e-lecture and save it for students, and they benefit from it at any time.

Other faculty members shared the same view, as follows, regarding the benefit of using the virtual classroom and discussion room:

> I usually use the virtual classroom and discussion room in e-learning, and they are important in the success of the e-course, allowing me to have constant contact with the student. Also, if students do not understand a lecture well, they can re-watch and review it any time they want.

On the other hand, some faculty members viewed QM standards as a burden to them in terms of it being consuming time to prepare and create an e-course.

> I think that QM standards are useful to guide us to approach a good e-course and blended course. However, these standards really take much time to prepare, and as I am a faculty member, I must manage my teaching time and my office hours. I do not have sufficient time to do all of these tasks.

Another faculty member agreed, as follows:

> Yes, it absolutely consumes much time. I usually spend more time in using QM standards in my e-course ensuring that each standard is applied. Honestly, I have various responsibilities in my teaching. I try to use QM standards as much as I can in order to offer an effective e-course.

Another faculty member added:

> Yes, I have used QM standards in both blended and full e-course, but I am struggling with lack of time and another issue is the rapid updating of some QM standards, which requires many modifications in e-courses.

From the above, it is clear that there are some challenges regarding the time it takes, the modification process, and updating QM standards which impedes faculty members' use of QM standards in e-courses. For example, the participants noted that time constraints were a major issue they encountered when using QM standards, especially for faculty members who compete to attain the QM seal and become certified peer-reviewers and trainers. In following these standards, faculty members are required to offer well-designed e-courses which must be reviewed by various specialists including peer-reviewers, and subject-matter specialists. This, in turn, affects the time faculty members have to spend in preparing and designed the e-course properly. In addition, faculty members have to spend extra time with these specialists to discuss whether they apply these standards or not.

Another barrier is that QM standards are updated from time to time, which causes faculty members to be discouraged and reluctant to use QM as they have to change the design of their e-course according to new criteria. Furthermore, the review processing and rectification of any mistakes in using QM standards takes up much of faculty members' time, which could be used on their teaching duties. As such, one participant expressed that:

> I took the QM standards training program through a virtual class which was provided in two languages, English and Arabic, in 2014. I became a member and peer reviewer in the Quality Matter organization. I think that anything new has some difficulties for me I really face a challenge when using QM standards in managing my time to modify any errors when I fail in design them in the right form which adds extra effort into my teaching duties.

Another participant expressed that she found updating standards to be a barrier:

> In the light of the conferences held by the Quality Matters, there is a challenge that I face as some standards are developing and we have to be aware of any changes in QM standards.

Upon achieving QM standards, the University developed a course based on these standards which they called 'Developed Courses', which any faculty member can teach electronically, and they may add some parts that can be useful for students. One participant demonstrated the flexibility of using a developed course for faculty members:

> I teach full e-courses according to QM standards and another faculty member in the same specialization can teach this course next year with the same QM standards, monitoring the activation of forums and communication with students. However, he or she will have the right to add any other video clips that will be useful for students.

Using QM standards has provided a qualified e-course and blended course which has led the University to receive the Quality Matter seal for some e-courses. By applying QM standards, some e-courses went from being low quality to high quality which was evidence that these courses met the 'Excellence' level among Middle East universities. According to another participant:

> I am proud of our university's achievement so far. We have developed more than130 e-courses that meet QM standards. Also, more than 20 e-courses have been given the QM seal.

Another participant added:

> My e-course got the Quality Matters seal after I applied QM standards, I taught the e-course and I got the full degree.

Furthermore, the University offered open courses in different fields based on QM standards. According to one document, the aim of open courses is to disseminate the enrichment of

knowledge and educational materials for learners and instructor across the Arabic world. One participant highlighted how he prepared his open course in the University's studio.

> When I developed my open courses (Accounting Principles), I took much time sitting in the e-course studio. The technician helped me to record my open course so that it would be well-organized for launching on the University website.

The results of the participants' views on this theme show that designing an effective e-course plays an active role in helping faculty members to improve the quality of their e-teaching. In fact, the University works hard, in partnership with the QM organization, to improve and enhance the quality of e-courses. A benefits of QM standards is that it can produce effective, organized, and qualified e-course design, as well as eliminating negative thoughts about lower quality in e-learning. Hence, these standards have brought positive outcomes for e-courses and open courses which means QM standards have created important changes and continuous improvement of quality assurance in the e-learning environment.

4.5. Fifth Main Theme: Technology infrastructure support

One of major themes concerned the infrastructure of technology provided by the University to its stakeholders. This theme is shaped by the opinions expressed by participants from among faculty members, administrative staff, and students and some University documents that were used. It reveals technology infrastructure which includes both hardware and software implemented in the University figure (4-3). It also shows, in depth, the use of the Blackboard system by all participants.

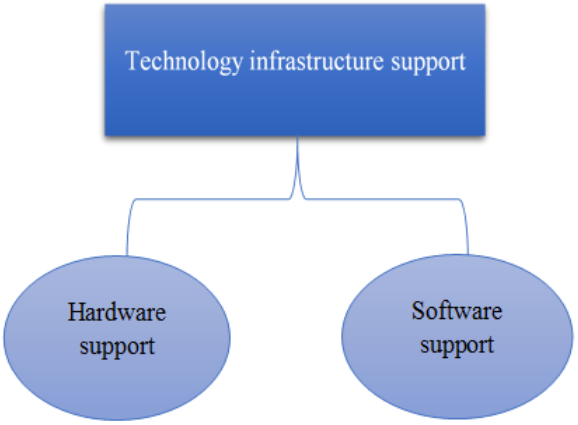

Figure 4-3. Technology infrastructure support.

4.5.1. Sub-theme one: Hardware support

Looking at the University's structure, the e-Learning Deanship was allocated in order to assist faculty members and students to fulfil their needs, and to employ their e-teaching activities through the e-learning system. The participants indicated that the e-Learning Deanship is the main vehicle through which their needs are fulfilled regarding e-tools, in addition to which it runs a different training program for every new e-tools. For example, one administrative staff reported that:

> The e-Learning Deanship helps us in many ways. For example, if we want any new tools in Blackboard the e-L earning Deanship has realised the importance of facilitating the process of learning and communication therefore it buys these e- tools and trains the faculty members.

As mentioned previously, the e-Learning Deanship is divided into different teams, the on-line support team, the quality team, and the technical service team, responsible for providing any e-tools that support the e-learning system, updating anything new that develops the e-learning system, and providing e-labs in each college. Moreover, the Deanship of e-Learning provides improved internet speed along with a support service to solve any issues on the KKU campus.

The majority of participants shared the same view that the e-Learning Deanship is the main source of support regarding hardware:

> Most of the colleges I have worked with have been equipped, by the Deanship of e-learning, with special laboratories and devices to help the student and the professor to teach courses electronically.

In relation to the availability of hardware implemented in the University, the participants explained that they have access to up-to-date technology to improve and facilitate their teaching quality, whether in a traditional classroom or an e-course environment. One faculty member mentioned that:

> I attended a training course last night in the Electronics Deanship and the e-lab was equipped with the latest computers and high-speed internet service. Also, some traditional classrooms have hardware, for instance a projector and smart board.

In addition, there is a room equipped with new technology to record open courses in order to make knowledge available for everyone. One male participant stated that:

> When I developed my open course last year, it took up much of my time but the technical team in the e-Learning Deanship helped me record this course in a special studio. Recently, my open course was taught on the open course website. I received a reward from the university for that.

This means that the studio is mostly accessible for male faculty members, however there is lack of provision of this kind of studio in the female section. In fact, it is difficult for female faculty members to share this studio frequently as the education system's legal police ensure that female and male faculty members are separated in the learning environment. In this regard, one female faculty member who is experienced in using e-learning systems stated that:

There is a special studio for recording open courses in the e-Learning Deanship. if any faculty members wish to teach this kind of course. Honestly, we need to have an equipped studio, with qualified technicians to record our open course and this would enable us to have our privacy and freedom in using this studio.

As a consequence of there being a large number of branches that belong to the University across the province, one female college was found to be facing a shortage of specialists in e-learning. This led faculty members to be disappointed when they realized that they would be unable to use e-learning extensively as there was no-one to facilitate it and help them to use it effectively or provide technical maintenance. The inadequate human and physical resource issue in this college were described by one female participant as follows:

I really noticed that every year there is more quality than before, but I think the problem is that we still have a lack of e-specialists in this female college and two e-specialists cannot manage the faculty members' and students' needs and queries. Also, we have a modern e-lab with new computers and a good workstation, but these are not sufficient in relation to student numbers.

However, according to goal three of the e-Learning Deanship, the influence of e-learning in mitigating institutional pain points, this goal correlates with an attempt by the e-Learning Deanship to solve this issue in the long term under the 2030 vision KKU. Hence, it is clear that they are making an effort to create and connect a dispersed university and its branches with an effective e-learning environment.

There was recognition that the e-Learning Deanship has attempted to solve the internet issue for students who do not have internet in their house, or have a weak internet service, by

providing e-labs in which they can do their homework, which is open during studying time. Some participants expressed:

> Some students use the e-labs to do their e-assignments because of the weakness of internet in their area.

The internet service is important to operate an e-learning system overall in the University. Therefore, it was found that the University supports its stakeholders with a good internet service which helps them to integrate the e-learning system effectively in their teaching. One participant indicated that:

> I think that the internet is robust at the university level which help us to use e-learning system in our teach practice and communication with our students.

In terms of introducing new tools in the University, a strategy implementation plan should be managed which covers the installation progress and training program in order to allow students to practise in a real e-learning environment. This might limit any further issues faced by trainers and faculty members in their future use of new e-tools. One participant explained that:

> If we want to use a new system, first we have to install it and make sure it works well and then take training session and trainers have to train faculty members and students how to use this new program.

However, one faculty member added different opinion regarding the issues with internet:

> Sometimes when I use the University's website disconnection occurs. They told me that the University has installed a new system. Indeed, the University usually installs a new system every year to resolve any previous problems.

The points raised in this quote are twofold: first, the University's internet connection is slow, so if this issue persists it will definitely affect the quality of e-learning and fail to meet the users' needs. Notably, this issue involves software technology which is a serious problem that

should be considered by the KKU; and second, KKU is keen to update its system frequently to improve and enhance quality.

4.5.2. Second sub-theme: Software support

This illustrates the practice of using LMS by the participants, which has an influence on their e-teaching activities and communication with their students. It reflects, particularly, the use of features of the Blackboard platform and how they widely use these features in their e-teaching practice in order to collaborate with students. The e-Learning Deanship website is useful and accessible for faculty members in terms of enabling them to receive training via e-channels to improve their skills in the e-learning system. The e-Learning Deanship website is written in both Arabic and English, which makes it more flexible for international faculty members and administrative staff. By placing different information related to the use of e-learning in general on this website, faculty members can access whatever they need including, training, solving technical issues, e-learning policy, and the e-library.

In addition, the e-Learning Deanship website launched an e-community service that enables faculty members to e-share their experience and knowledge in using the e-learning system. One participant reported that:

> The Blackboard system has an icon called e-Community of Practice for faculty members who have experience in e-learning, so my experience has got a lot of admiration from faculty members and administrative staff in the University.

The majority of participants explained that this website provides up-to-date information, knowledge, and clear layout of content which makes e-learning easier. For example, in this

portal there is a dedicated section for e-training and workshop through Tamkeen channel to teach faculty members how to use e-learning. This is shown in the following in figure (4-4).

Figure 4-4. Tamkeen channel in KKU's website

In addition, faculty members can utilise customer service if they face any technical issues or have queries regarding the use of Blackboard. One administrative staff described the availability of technical support to sort out any technical issues in more detail:

> Yes, we have customer service if any faculty members or others cannot access Blackboard or have any other problems with the e-learning system. Actually, solving problems varies depending on what kind of problem it is. It might take an hour or half an hour and sometimes the problems are not due to our system but from the IT system, but we have a 90% success rate in solving clients' problems. During official working hours, we have e-learning specialists and a hotline on which students and faculty members can contact us. It is 7000 and is continuously and permanently located in all e-labs to solve problems. we have a ticket system; the teacher and students send their problems and we try to solve them. Quality in our work appears in solving problems correctly and fast such as breaking up or disconnection.

With this clear technical assistance through the e-Learning Deanship portal, faculty members are aware of how to solve any problems on any issue they might face, as well as the availability of information and more options of social media including Facebook, Twitter, and YouTube that are linked with this website KKU. As a result, faculty members and students are satisfied with the quality of customer service which solves problems quickly and offers quality information.

Through the e-Learning Deanship website, faculty members can educate themselves in relation to raising awareness of the policy of using e-learning through the e-booklet that covers all the rules of using e-learning pertaining to type of e-learning, copyright, and attendance, as shown in figure (4-5).

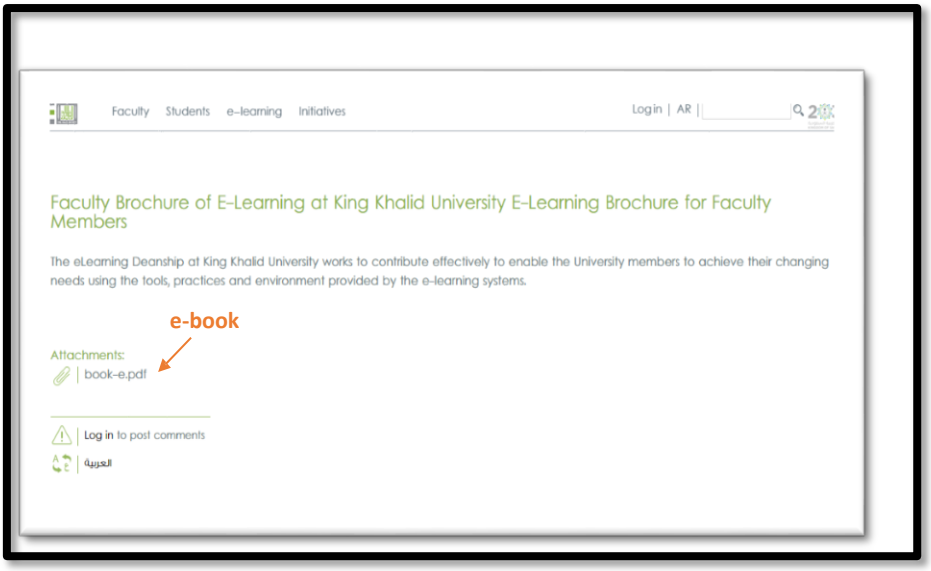

Figure 4-5. E-booklet in the KKU's website.

Moreover, based on the Saudi Kingdom Vision 2030, one initiative of the e-Learning Deanship website, KKUx, platform was established through the website. The KKUx platform's vision and mission is in line with the Saudi Kingdom Vision 2030 in opening opportunities for anyone to learn required skills and knowledge. Hence, this platform provides different courses for job seekers to improve their skill for future jobs, for example complex problem solving, emotional intelligence, critical thinking, and creativity. The following figure (10) clarifies the KKUx vision.

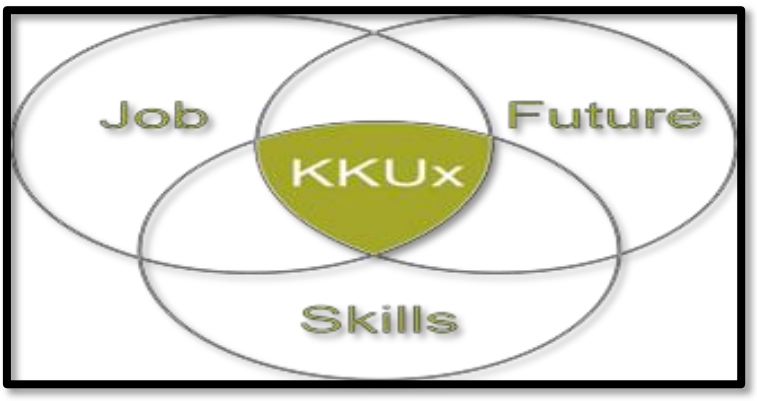

Figure 4-6. KKUx vision.

The University was concerned that the LMS should be included on the University website, hence they used Moodle platform before switching to the popular Blackboard platform due to its range of features. One participant stated that:

> Well, we used Moodle platform. Now, we used Blackboard as it is user-friendly and intuitive, and it is precisely what we need. Therefore, KKU purchased Blackboard from the company and this company has the task of training faculty members.

The use of Blackboard and its features in the e-learning environment was an obvious choice, as it allows both faculty members and students to access a wide range of information and communication tools that facilitate and enhance the learning processes. In this sense, the majority of participants expressed their experience regarding the benefits of using the Blackboard platform as faculty members can create a useful e-learning environment that covers different activities including uploading e-courses, creating online-assignments and announcements, and interacting with students, especially through a virtual classroom and discussion room. For example, according to one faculty member:

> I mostly use different e-tools in Blackboard, and each of them has a special advantage for me, I like to use Discussion Room and Virtual Classroom these are the best tools in interaction with students because students love writing and communicating through e-forum. I also record e-lectures continuously to help students to return it any time whole term through the virtual classroom.

Another faculty member commented:

I use different e-tools - Virtual Class, Discussion Forum, etc, although Blackboard is an especially useful platform. This really helps me in teaching my course materials in terms of open discussions or posting links or video clips related to any additional interesting topics. Also, I can observe my students' progress via e-testing, e-homework, and attendance.

As mentioned above, the benefits of using Blackboard were confirmed by the majority of participants. Therefore, Blackboard is recognised as a mainly useful tool that supports faculty members in various ways, such as in managing their course materials and activities and enhancing their e-teaching by using different methods of teaching. In addition, Blackboard enables faculty members to constantly chart students' progress on the e-course. As a result, there is an availability of useful and meaningful websites and Blackboard platform with a range of features that can motivate the faculty members to use it and improve their teaching methods and e-knowledge.

4.6. Sixth main theme: Student Support

This theme explores participants' experience of e-learning systems and the ways in which the University attempts to meet their needs. Three sub-themes were identified: (a) institutional support (b) technology support (c) training support. Further, the practice of using the Blackboard platform were explored.

4.6.1. Sub-theme one: Institutional support

According to some participants, the e-learning deanship is trying to disseminate the concept of e-learning among its students. Interestingly, one of the initiatives of the e-learning system was to accustom students to its use by conducting orientation inside and outside the University to introduce students to different topics that cover most conception of e-learning and the advantage of using the Blackboard platform, which may offer an interesting overview for

students. In this respect, one participant who conducted e-learning orientation outside of the University indicated that:

> As one of my responsibilities is how student high school be aware of e-learning system before they study in KKU university, I completed some training programs (Orientation meeting) on awareness of the e-learning system and Blackboard platform, and some faculty members and e-specialist in e-learning. Honestly, my colleague and I employ team work to develop e-learning. We are trying to cover most high schools in this region.

The University was concerned with students understanding the e-course policy; hence faculty members were responsible for clarifying it through the e-course syllabus, consistent with Quality Matters standards in e-course design. All participants (students) reported an understanding of the e-course policy through the syllabus which assisted them in managing their tasks in the course as well as in other courses. Thus, the application of QM standards by faculty members made the e-course meaningful to students, particularly regarding the goals and requirements of the e-course. For example, one participant mentioned that:

> I could understand the e-course policy clearly before I started the e-course, through the syllabus that my teacher posted in Blackboard, so this gives me an overview to prepare myself for any project, Quiz, and presentation, especially, when I have a busy semester.

Another participant agreed, stating:

> My experience was that I studied a full online course last semester and it was a great course. The syllabus of the e- course was clear and explained everything I should achieve such as Quiz, Mid-term, homework, and final exam.

4.6.2. Sub-theme second: Technology support

This concerns hardware and software that was implemented throughout the University and students' views on its influence on their learning progress and how it helps them enhance their learning. All participants confirmed that the University provided students with a wide range of up-to-date ICT tools and qualified trainers in the e-learning system, especially in female colleges. One participant reported that:

The e-deanship plays a significant role in providing most of the colleges with qualified women specialists to train and monitor faculty members and students.

Furthermore, in terms of providing e-labs throughout the University campus, the University seeks to cover all the colleges across the region. Such e-labs are divided into three types: e-labs in the male colleges, e-labs in the female colleges, and mobile labs. The following table (4.2) shows how the University supports female students with a large number of e-labs that include useful computer systems.

Table 4.2. The number of E-labs for female colleges.

Region	Complex	Building	E-labs		
			lab	Number of computers	Operation system
Abha	Al - Qariqar	Building A	Lab 1		
			Lab 2		
			Lab 3		
			Lab 4		
			Lab 5		
			Lab 6		
			Lab 8		
			Languages& Translation college labs		
			Medical college lab		
		Building G	Sciences of medical lab		
			Pharmacy college lab		
			Dentistry of college		
			Science of college lab		
Khamis Mushayt	Almahalh	Building C	Community College		
Muhayil	Muhayil Asir	Building C	faculty of Sciences and Literature		

Similarly, Table (4.3) illustrates that the female colleges are equipped with a range of computer labs, with internet service, which offer flexible access to Blackboard, e-tests, and e-assessment.

Table 4.3. The number of computer labs, female colleges.

City	location	complex & college	E-labs		
			lab	Number of computers	Operation system
Abah	Abah	Community College	One lab	53	
		Faculty of Sciences & Art	30 labs	31	
			26 labs	32	
			25 labs	31	
			21 labs	35	
			33 labs	87	
		Science of college	One lab	34	
			2 labs	34	
			3 labs	32	
		Alsamir	One lab	100	
			2 labs	65	
		Faculty of Economics & Home Management	One lab	48	
	Lahsan	Graduate Studies & Scientific Research	One lab	34	
			2 labs	9	
	Dhahran Aljanub	Faculty of Sciences & Art	1 lab	37	

Therefore, the mobile labs were piloted in both female and male colleges, using modern computers and iPads as shown in table (4.4).

Table 4.4. The number of the mobile labs for female and male colleges.

Type of e-lab	Labs number	Total of number of computers
Mac Book Pro	6 labs	168 computers
iPad	74 labs	3168 iPad

Most of the participants stated that the University provides students in each college with a useful environment of ICT tools including e-labs, internet service, and modern desk-top computers with Microsoft Office applications. Interestingly, the availability of e-labs in the University is deemed essential for students who have weak internet services in their homes, thus students are keen to use the e-labs to do their assignments. These e-labs meet students' needs regarding their learning activities. Two students, cited the benefits of using e-labs, especially in relation to doing homework and e-tests, stating that:

> I always do my homework in the University e-lab because I have a weak internet service in my home. The e-lab allows me to study in a good and quiet learning environment.

and:

> I have experience in using e-test in the university e-labs and it is a good experience, but a technical issue occurred during the e-exam time. The instructor tried to fix this issue by letting us log on to the exam again. Another instructor fixed this issue by providing us with a hardcopy of the exam.

In terms of technical issues during e-test or study time, there was agreement between participants (faculty members and students) in relation to the University's handling of technical difficulties faced by students, faculty members, and administrative staff. In this regard, one participant noted that the University attempted to overcome this problem by providing internet service with a large number of extender devices that increase the internet speed on the University campus:

I think that we sometimes face some troubleshooting problems in the internet service during our working day, whether we examine students in the e-labs or teaching time. Thus, the University offers WiFi repeaters in most of the colleges.

Moving on to software technology in the e-learning environment, the University supports students with Blackboard platform which enables them to reinforce the e-course material at any time and from any place. Hence, all of students were satisfied with the features of Blackboard platform including, virtual classroom, and recording lectures to retrieve the contents of e-courses. Further, the students mentioned the virtual classroom as an alternative method to traditional courses.

I benefit from Blackboard in various ways, including the virtual classroom which allows me to interact with my instructor if I need any help or have any questions. I can say that the virtual classroom is like a traditional room in the way it provides information.

As mentioned above, the existence of student support by faculty members was evident in many instances. As another example, faculty members are committed to recording lectures online for their students:

We ask faculty members to record their e-lectures for students and download them on the e-course page, to enable them to listen to them at any time and because of the weakness of the network in their areas we train them individually. Students also tend to complete e-assignments for easy e-delivery rather than using paper for their homework.

Interestingly, the benefit of Blackboard tools was cited by the majority of participants, most of whom described it as a useful and flexible tool, particularly for female students who found them useful to remain engaged with the learning process:

As I am a student, mother, and wife, I think that e-learning is useful in this university, specifically the recording of lectures helps me a lot to maintain my study progress. Also, through the virtual classroom, I can learn whilst I am in my home, so generally e-learning makes the learning process easy.

However, one participant expressed dissatisfaction with the use of the Blackboard platform with a laptop or desktop, stating that it takes time and extra effort:

You know, I was frustrated about going to the e-lab to do my work or use my personal laptop and I have less experience in typing, but with the new apps on my cell phone, I can frequently check my progress in attendance and any announcements regarding the e-course and the traditional course.

To exploit the full benefit of the Blackboard platform, the University brought in the Blackboard app and the Academia app for students and faculty members. Notably, some participants preferred these apps due to ease of access on students' cell phones. These help them in multiple ways such as keeping students connected with faculty members in all periods of study.

One problem that participants mentioned was in relation to technical issues. One student held a negative view regarding troubleshooting in myKKU apps by saying:

I like myKKU App which make the access to my e-course materials easy as I have my phone all the time with me. However, there is troubleshoot in Blackboard apps which prevents me to use it frequently. In this case I use KKU website instead of that.

Some student believed it to be a valuable and useful app for managing their course generally.

4.6.3. Third sub-theme: Training support

The training program and provision of consultations affects students' experiences in different ways. Most of the participants mentioned that the University provides two types of training: face to face training and online training via e-channel. With regard to attending training, four participants attended face to face training programs during their studies at the University, alongside online-training, whereas two participants used only e-training (Tamkeen channel):

When I started my study in this university, they kept sending an email and announcement which invited us to join the training program on how to use Blackboard tools. Yes, I benefited from this face to face training program and it was a helpful way to increase my competence in the e-learning system.

Another participant's view regarding the quality of the training program offered by the e-specialists was as follows:

I expected the University to offer different types of training. Personally, I use self-training in how to use Blackboard platform and the virtual classroom through e-

channel. I sometimes go to the e-learning unit or call them if I face any difficulties, and they always give me some advice on managing Blackboard tools and the virtual classroom.

This implies that when there are various training programs available to the students, whether on campus or online, it reduces their study load and enables them to train themselves at any time and from anywhere through online training. Further, offering these programs throughout the academic year, in turn leads students to improve their skills and knowledge in using Blackboard tools and to incorporate these skills in their study time.

In short, there was agreement between students and e-specialists in terms of the e-specialists' efforts to offer a training program and consultations for students in using Blackboard tools effectively. In this regard, one participant explained that her role is to train and provide consultations for the students:

As one of my roles, in the case of any students not attending training sessions, my colleague and I try to train students and explain to them how to access Blackboard and use its features. Nowadays, some of the new generation prefer to use it without any training, and others use it with help from their friends.

Another participant agreed, stating:

I would say to any faculty members or students facing any problems I can provide consultation, advice, and solutions to their problems. I train students in the different workshops in how to use the Blackboard system.

However, one participant (student) reflected that there was no need to attend this training program because she trained herself with help from a friend.

Yes, there are some educational videos on Tamkeen channel but, I did not go through this channel. My friend helped me regarding the use of some of the aspects of Blackboard including...

As stated above, this implies that attendance of training program in the e-learning system is not mandatory for students, which means there is flexibility in the use of e-learning.

Regarding attending training programs, one participant explained that different training programs were applied to students across most branches of the University, but some students

did not attend these programs. Clearly, the University needs to set a rule regarding attending such training programs, in order to improve students' skills by enhancing the quality of using Blackboard platform.

As a result, the provision of training programs, infrastructure technology, and institutional support and positive practice for students were noted as contributing to improving the quality of the e-learning environment which already exists in the University.

4.7. Summary of themes and findings

Overall, the majority of participants offered positive viewpoints and were enthusiastic to be involved in the e-learning method in the KKU environment. The use of QMs in particular for faculty members and administrative staff, was appreciated.

Furthermore, the institutional support factor that covers the implementation of strategic planning, goals and its action, clear policy in each practice of e-learning methods, structure management body of e-learning deanship, and vision have the potential to support the stakeholder participants in understanding and identifying their responsibilities and enable them to achieve their goals, is considered one of the factors that improve quality of e-learning in the KKU environment. In this regard, the literature highlighted that setting up a robust strategic plan and vision for the long-term is essential for improving quality e-learning (Masoumi & Lindström, 2012).

Regarding the support of faculty members, the professional development training program has had a substantial amount of influence on participants' experiences in terms of improving their skills and knowledge, particularly this kind of training delivered via face to face and online

formats. The University has sought to reduce the workload of its stakeholders. In the context of Saudi universities, (Al-Zahrani, 2015b; Al Mulhem, 2014) demonstrated that providing training programs in ICT is of the highest priority and will assist faculty members in using them in teaching, as well as to enhance their technical skills. Specifically, those faculty members who take part in training program are more likely to design blended and full e-courses easily and effectively. In general, there is a strong relationship between training faculty members and the quality of e-learning as confirmed in (Baran & Correia, 2014) study.

The faculty members evaluation theme had a clear impact on how faculty members' performance was evaluated in different ways. Faculty members were evaluated, based on their type of e-learning method, by an e-specialist, and the students were involved in giving feedback at the end of a course. Those faculty members who used blended and full e-courses were evaluated according to with QMs by a review team, which included a subject matter expert. Their comments could be used to further improve the courses.

Furthermore, the participants agreed that designing e-courses according to Quality Matters standards was strongly is related to meeting quality assurance in e-learning and making important changes. However, institution and faculty members need to put more time and effort into QMs in order to manage its process, including training and reviewing.

In addition, most of the participants provided positive feedback regarding technology infrastructure support, while a few of them made negative comments regarding, for example, the shortage of technicians and infrequent maintenance of e-tools in the classroom.

In relation to student support, the participants agreed that KKU pays particular attention to three kinds of support: institutional support, technology support and training program support that meet their needs in e-learning process. Nevertheless, a number of challenges in terms of technical problems were identified in this theme by students, such as troubleshooting in myKKU apps and technical issues during e-tests.

Finally, various barriers experienced by KKU during the implementation of the e-learning method and QMs in its learning environment were identified across all themes by participants, who also described how the University overcame them.

A discussion of these emergent themes will be presented with previous studies in greater detail in the next chapter.

5. Discussion

5.1. Introduction

The aim of this study is to explore the experiences and views of stakeholders who have used an e-learning system in a Saudi university. In particular, the study explores a better understanding of how that quality is enhanced in an e-learning environment including, institutional support, development of training programs, and interaction between faculty members and students.

The findings from interviews with different stakeholders and analysis of documents including the university website, articles, and evaluation forms revealed various themes that were deemed as factors that constitute the quality of e-learning environment. Six main themes emerged: institutional support, faculty member support, evaluation of faculty, quality of e-course design, technology support, and student support.

The following figure (11) illustrates these intrinsic factors as columns, connected by bricks leading to quality e-learning. It shows how the quality of e-learning structure includes all these factors as an integral part of the KKU environment. This is because none of the factors can work without the cooperation of the others.

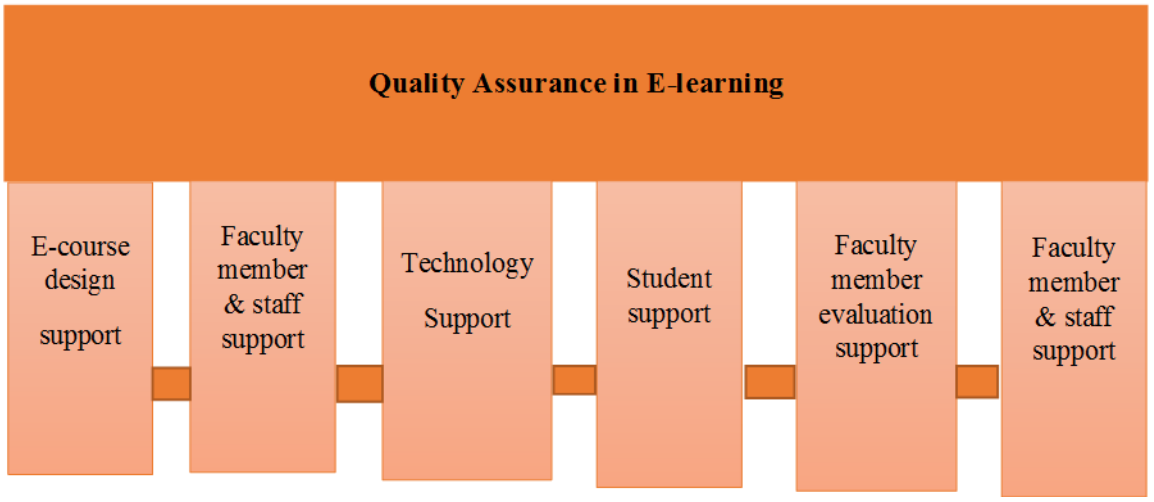

Figure 5-1. Intrinsic factors as columns

The main purpose of this section is to link the main findings (emergent themes) with previous studies, which will bring about a better understanding of the phenomena relating to factors that produce the quality of e-learning, which emerged from the analysis. This addresses the purpose of this study:

- To determine and analyse the factors which help higher education and faculty members to teach and facilitate the high-quality provision of education within e-learning courses.
- To examine strategies that build quality assurance at Saudi universities.
- To explore the impact of the quality assurance culture on the adoption, development and quality enhancement of an e-learning environment.

This chapter therefore consists of a discussion of the emergent themes to provide an insight into the following research questions:

1- From the perspectives of faculty members, students and administration staff, what support factors facilitate or impede the development of quality of e-learning among higher education., and in what way do they do so?
2- How has the university developed quality assurance in its online courses?

5.2. Consideration of supportive factors:

5.2.1. Institutional support factor

It is important to mention that, in this study, institutional support focuses on the whole policy of the use of e-learning, the structure management, and the strategic plan, goals, and vision for e-learning. This study found that the availability of institutional support has an influence on building the quality of e-learning in higher education.: it explored influences on the importance of implementing institutional support in the KKU context.

Further, institutional support is considered to be a significant factor in ensuring quality in an e-learning environment ,which is consistent with (Graham, Woodfield, & Harrison, 2013) study, in which they examined six case in different institutions and found that institutional support played the main role in guiding the universities in the use of e-learning. The findings are consistent with a previous study which suggests that, in general, institutional support which covers e-learning policy and organizational structures are able to ensure the quality of e-learning (Zhang & Duan, 2017).

As a result, an e-learning plan was perceived by most faculty members and administrative staff as a means of the University enhancing e-learning activities and the teaching process. Such a plan demonstrates the existence of a vision, mission, goals, and policy in e-learning mode in KKU. In order to bring about a successful organizational process, KKU follows the Kotter framework (Kotter, 1996) that involves eight steps to form its strategic plan to transform the University in terms of its use of e-learning. In this regard, the following figure shows how KKU follows this framework:

1. Establishing a sense of urgency

2. Creating a guiding coalition

3. Developing a vision and strategy

4. Communicating the vision for change

5. Empowering others to act on that vision

6. Generating short-term gains.

7. Consolidating gains and producing more change.

8. Anchoring new approaches in the culture.

Availability of vision can guide stakeholders to appropriate strategies in leadership, as leaders become more qualified in problem solving to establish any issues and solve them. Vision is seen as an important path in organizational change (Hallinger & Heck, 2002).

In general, it is thought that the universities should deploy its vision of e-learning method for its stakeholders. Prior to the introduction of the goals of e-learning, the KKU set out a long-term vision and mission regarding e-learning, which include the university enabling all its stakeholders to be involved in practising different types of e-learning systems effectively. According to Al-Shboul, Rababah, Al-Saideh, Betawi, and Jabbar (2013) changing methods in relation to aspects of the learning process requires a vision which is aligned with the practice of technology and it becomes as part for faculty members and students university administration of everyday university life.

In terms of meeting the vision, firstly, the University achieved its internal goals which were to improve faculty members' skills via development training programs, spread a culture of the importance of e-learning, and launch the LMS platform.

Secondly, from 2006 to 2017 the University sought to fulfil all the actions under its five goals which, in turn, led to the e-learning goals being more widespread in the university and the reconciliation of these goals by harnessing e-learning tools. This was especially important for enabling faculty members to become qualified to teach, using resources both inside and outside the University. Further, accomplishing these goals led to KKU becoming the leader in e-learning among universities in Saudi Arabia. Hence, five goals were elucidated by the university, each of which includes different actions which promise to accomplish its goals in using e-learning. The following figure (5-2) provides an explanation of all five goals with relevant actions:

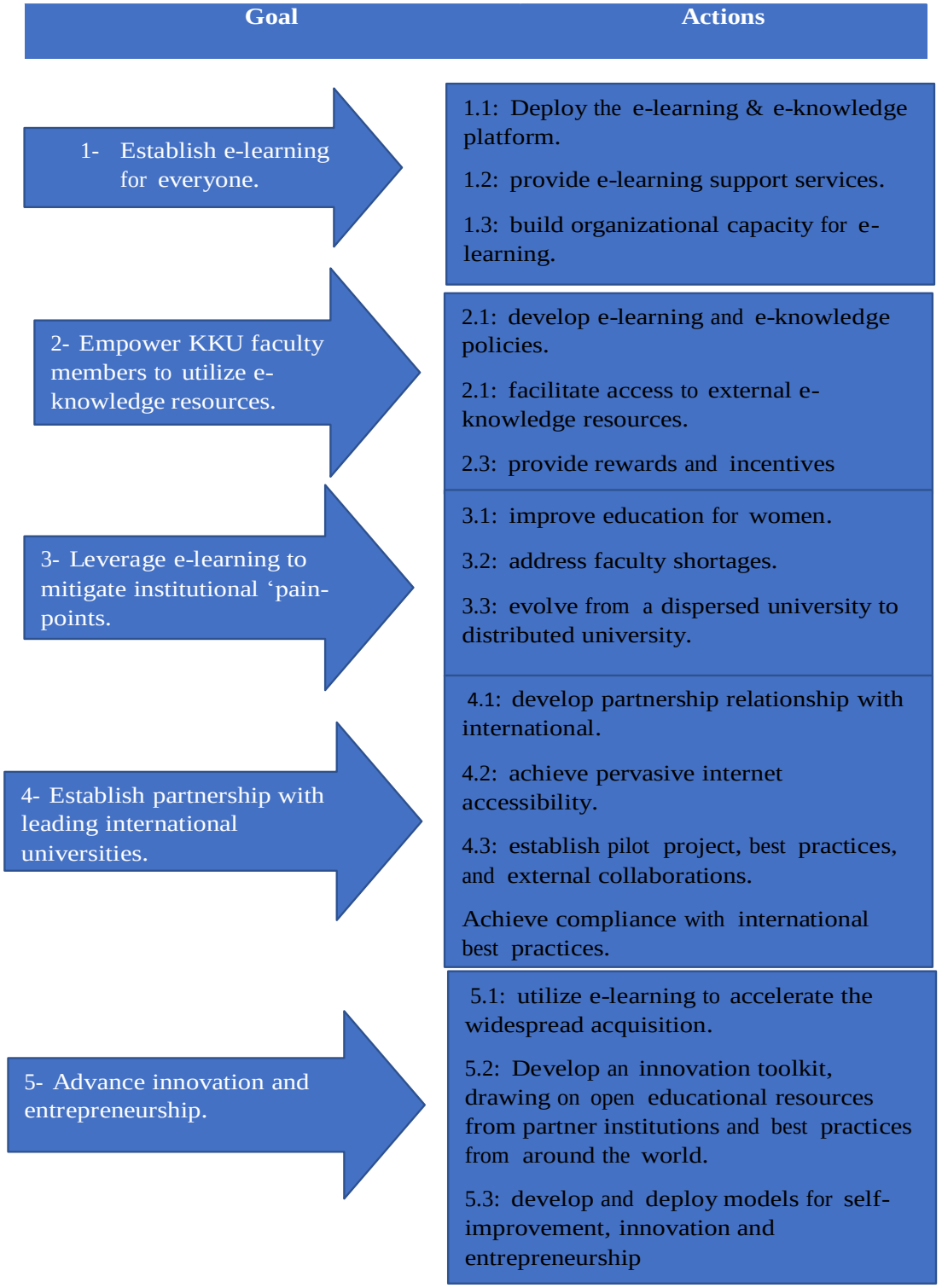

Figure 5-2. Five goals of with relevant actions.

To ensure these goals are achieved, an e-learning policy was implemented that covers every aspect of e-learning and provides clear guidance for stakeholders. This means they can perform their duties according to the policy and it eliminates any potential confusion in the future. (Al-Azawei, Parslow, & Lundqvist, 2016; Tarus, Gichoya, & Muumbo, 2015) conducted studies in public universities and identified a lack of e-learning policies which caused delays in the adoption and use of e-learning.

It is notable that the University is keen to operate a policy of using e-learning, and the responses of all participants were positive regarding the following questions: Is there a solid policy of using e-learning in this university? If so, what is it and how does the University perform this policy with its stakeholders? Faculty members and administrative staff conceptualized the University's efforts to ensure the policy of e-learning must be operational across the University. In the current study, the operational aspect of the e-learning policy is the key to guiding stakeholders in the practice of different aspects of using e-learning including, supportive blended courses and full courses, online tests, and attendance of students. This concurs with two studies (McGill, Klobas, & Renzi, 2014; Nakamichi, Nemoto, Kita, Nakano, & Suzuki, 2017) which showed that successful e-learning policies clarify the legitimate tasks for faculty members which then motivate staff and ensure effective e-learning practices. The results of this study show that faculty members believed they effectively used online test and quizzes in different e-learning methods, which were supportive of e-learning, which was based on the policy of using online testing which is accessible via the University website. This is different

from the findings in other studies (Chawinga & Zozie, 2016; Makokha & Mutisya, 2016) who reported that online quizzes and self- tests were not included in some instructors e-course which they believed impacted negatively on students' performance.

In terms of online testing in this study, for example, the main concern was the protection of online tests by the University to ensure their effective use. Faculty members have an obligation to protect online-test content when using online tests so that students cannot access these materials before they are used. Most faculty members stated that they are required to ensure security by using one of three types of e-test including Questions Bank, Random Mass, and Block Browser. As a result, Question Bank is the type most frequently used by faculty members in KKU, who believe this kind of online testing prevents cheating among the students during exams. In using Question Bank, the faculty are committed to preparing about 100 questions, so the students do not have to answer the same question in the exam. Drąg and Filip (2015) who conducted a Question bank project in an American university involving 108 students. They concurred that Question bank is an innovative way of deterring cheating and impacts positively on students' engagement with course material. However, one faculty member mentioned that preparation for the use of Question bank is time-consuming and it is a burden to type up this number of questions. This is consistent with Wang (2017), who found that structure of Question bank was difficult to follow and that the question compilation takes a long time so is a difficult task.

The response to all the questions related to goals, strategic planning, and the policy of using e-learning at KKU are cited by the researcher under institutional support theme.

5.2.2. Faculty members support factor

Another factor that influences quality of e-learning methods in KKU is support of members of staff which involves all support factors that improve and enhance the use of e-learning by both female and male faculty members and administrative staff. Both the interviews and the documents show the spread of the culture of e-learning across the University branches in which faculty members are interested in using e-learning methods for the first time. The e-learning deanship decided to introduce faculty members to using the e-learning system by establishing orientation sessions, and flyers in the form of both hardcopy and digital messages. This support was thought to be very effective in encouraging faculty members to understand the importance of e-learning in teaching and it familiarises them with this new method of learning. This finding is in agreement with Joshua, Nehemiah, and Ernest (2015) study, particularly where they argue that the dissemination of a culture of technology is one of the factors that improves the understanding of the new method. However, one faculty member gave a different opinion with regard to the effort of the University in terms of e-learning, suggesting that the University should pay additional attention to spreading the importance of using e-learning among faculty members. This could be due to there being many branches of the University across the region as well as to the effectiveness of the messages themselves.

In this study the professional training program can be classified as the main supportive factor that was reported as positively affecting faculty members' performance in terms of meeting the quality of e-learning and students' satisfaction. In order to achieve this, the e-learning deanship employed three stages of professional training program to faculty members based on their needs, which were determined from the questionnaires regarding faculty members' skills.

Figure (4-2) shows all stages that faculty members go through to improve and enhance their capacities and skills in using the e-learning method. In terms of variety of gender and position of participants, old and new faculty members were targeted in this study, for the training program, particularly in the fundamental e-learning system, which enables them to understand most aspects of e-learning. The significant point here is that the University has sought to meet its vision and mission in terms of every faculty members and administrative staff being empowered in using e-learning. For example, some faculty members encounter challenges when they intend to use e-learning; for example, attending training programs presents them with extra workload in addition to their main duties. Other research (Haber & Mills, 2008; Thomas, Karr, Kelley, & McBane, 2012) has certainly found that one barrier to educating themselves in e-learning systems via training programs for faculty members and administrative staff is lack of time. Therefore, the e-learning deanship has made a great effort to eliminate this challenge by launching asynchronous training, namely Tamkeen and Maris. This type of training, delivered via the University's website, enables faculty members to train themselves and retain the information at any time from any place. Also, it reduces the workload caused by

face to face training. This approach certainly addresses the issue of making the training more available, and accessible but may not address the overall issue of workload in terms of lack of time.

The faculty members in this study, were given the opportunity to choose between different types of training program to fit their schedule. Similarly, (Elliott, Rhoades, Jackson, & Mandernach, 2015) who conducted a study on online faculty members,' perceptions revealed that lack of time was a problem which was identified as preventing faculty members from attending training programmes. They suggested that universities should offer a variety of forms of training program, as if only one type of training (face to face) is offered, it leads to faculty members not being able to improve their e-skills and knowledge. (Oomen-Early & Murphy, 2009) stated that there is a need for different modes of training program to be provided to faculty members to encourage them to access training in the use of the e-learning system and reduce the workload.

Some current studies suggest that to constitute good quality e-teaching, faculty members should receive a training program that mainly focuses on building their skills and knowledge (Arinto, 2013; Farmer & Ramsdale, 2016). In this study the belief that the skills and competencies transferred from the development of a training program by faculty members and administrative staff into their wider practice is feasible. For example, some staff reported that they effectively improved their use of e-learning which then led to them being pioneers in using e-learning

methods at KKU. Two of these faculty members were recognised as pioneers across Saudi universities and time received rewards.

As is clear from the interviews, Quality Matter standards was introduced in the University to design blended and full e-courses. QM standards are divided into three stages: peer reviewer course, master review course, and online facilitator. During the interview the researcher noticed that most of the faculty members had a strong desire to be involved in QM standards training which allows them to become qualified trainers in QM, and reviewers of e-courses across the University. Even those faculty members who did not access this training appeared to be of the same opinion. Establishing QM standards in e-courses was the main task of the Quality Department which followed its vision in applying quality assurance in e-learning. As a result of this study, the training in QM standards seem to have had a positive impact on enhancing faculty members' skills and knowledge to design both the blended and full e-course, which in turn, built the confidence of faculty members regarding e-teaching. This result supports the findings of (Shattuck, 2012; Wright, 2010), who both found that QM training enhances the quality of e-courses in terms of e-teaching, and increases the positive of performance of faculty members. Another current multiple case study by (Aqui, 2018) reported that training in QM standards is a more useful way of focusing on improving and guiding the quality of e-course design.

In terms of rewards and promotion, the University focuses more on rewarding faculty members and administrative staff with symbolic awards, such as iPads and monetary prizes as an

incentive. However, these were only given when the e-learning systems were first implemented as a useful way of attracting faculty members and deploying e-learning in the university. A study by (Alabaddi, Rahahleh, & Al-Omoush, 2016) found their University has a lack of incentives for faculty members to use e-learning and recommended rewarding them by providing incentives which play a crucial role in encouraging them to be online faculty members.

Overall, with regard to the quality of e-learning factors, it is clear from the faculty members' responses that there is strong link between quality of e-learning and development of training for faculty members and administrative staff. This finding is compatible with different studies, such as (Baran & Correia, 2014; Bigatel & Williams, 2015; Gregory & Martindale, 2016; Herman, 2012), which showed that development of training program led faculty members to become qualified to teach online with a range of skills in different concepts of e-learning methods. This, in turn led to the quality of e-learning meeting the required standards.

5.2.3. Faculty Members Evaluation support

As mentioned in previous studies (Simonson, Smaldino, & Zvacek, 2014), Quality Matter is also used as an evaluation tool to measure the quality of e-learning. In this study, faculty members designed and evaluated their blended and full e-courses based on Quality Matter standards. However, in the case of supportive e-learning, the e-specialist follows up faculty members regarding interaction with traditional courses such as posting syllabus, grades, and short quizzes. From responses to the interview question, "how do you evaluate a faculty

member's progress in e-learning?" three types of evaluation were identified: evaluating faculty members using QM standards by e-specialists, using self-evaluation, and using students' evaluation.

One of the managerial roles of e-specialists is to follow up faculty members' performance during the e-teaching process, assessing how they interact and engage with students, and how active they are with communication tools such as discussion forums, Wikis, and virtual classes. Importantly, the e-specialist is not responsible for evaluating subject matter, which usually takes place twice per term. As a result of this continuous evaluation, quality e-teaching can be implemented, which motivates students to engage through Blackboard. For example, the faculty members in this study reported that knowing that their performance was being monitored enabled them to understand their weaknesses and strengths and address any issues by applying QM standards. This finding concurs with the results of (Martin et al., 2016) in relation to e-courses aligned with QM standards, which indicated that faculty members and students interact collaboratively in activities and are more proactive in the enhancement of e-course quality.

In relation to obtaining the Quality Matters award in this study, faculty members' performance is evaluated by three peer-reviewers including a subject matter reviewer, an e-specialist in QM standards, and a technician, all whom have the right to access faculty members' e-courses. According to the course review process in Quality Matters, all the certified reviewers provide feedback which they believe improves the quality of courses, and this process works in

circulatory way, with the e-course under different reviewers as shown in the following figure (5-3)from Quality Matters (Shattuck, Zimmerman, & Adair, 2014).

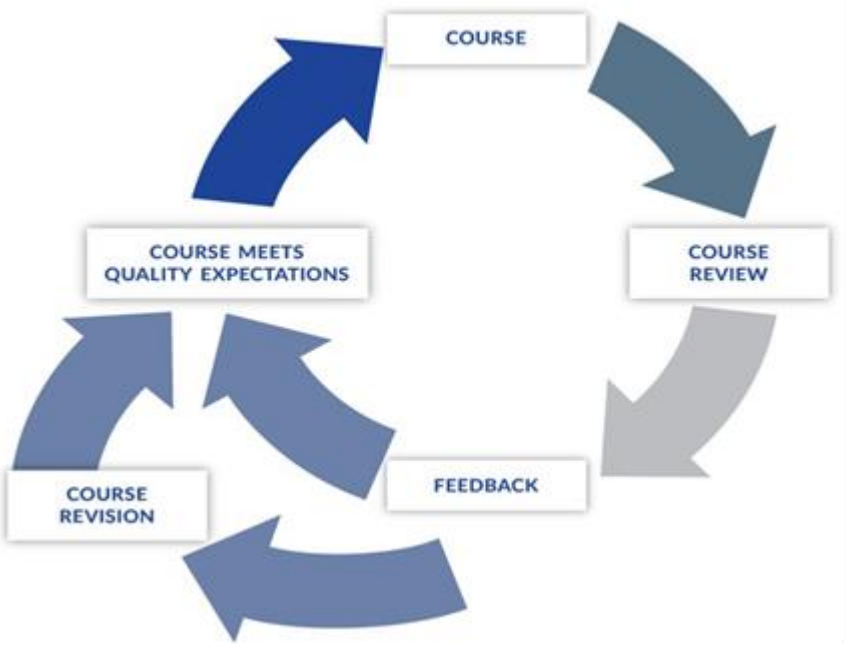

Figure 5-3. The review of process of Quality Matters.

This is considered to have an important great influence on faculty members' experience, permitting them to be professional in their use of these standards, with the course undergoing all these processes. From the documents in this study, the researcher received an evaluation form, a faculty member's performance in Quality Matter standards from one participant. This form shows the list of required standards which were met successfully by the faculty member who designed the assignments, activities, assessment, interaction, and learning objectives (see the figure). The faculty member needs to achieve at least 85 % of these standards to ensure the e-course quality and obtain the QM seal for it, which means they are not required to apply all 40 specific standards in their e-course. If the faculty does not meet all the required standards,

they have the opportunity to do it again, and this is in line with the policy of using QM standards which encourages them to do so effectively by amending their mistakes.

The evaluation of Quality Matter appeared to provide solid and clear guidance for faculty members and administrative staff in this study. In general, evaluation in the field of e-learning is an important factor in e-learning quality and continual improvement for stakeholders (Baldwin, Ching, & Hsu, 2018; McGahan, Jackson, & Premer, 2015).

Self-reviewing, using the tool provided by Quality Matters, allows faculty members to go through their teaching activities based on QM standards, and then review them to compare them again best practice. For example, according to one faculty member:

> Self-evaluate after every e-course lets you know where you stand. If you are unable to fare well in a particular course, you have the option of redoing the course until you get it right.

On the other hand, a few faculty members did not use this kind of evaluation, preferring to be evaluated by peer reviewers in order to get more experience and knowledge. In addition, faculty members are required to submit a report of the e-course at the end of term to further develop the e-course.

To ensure satisfaction, all students in this study reported that they received an evaluation form at the end of the course to evaluate faculty members' performance without revealing their names on the form. This has a great impact on improving and developing the course for the future. Other research (Sun & de la Rosa, 2015; Thomas, 2017) has similarly found that student

feedback regarding e-course activities and faculty members' teaching can be an important factor in increasing and boosting e-course quality.

5.2.4. E-course design support factor

It is important to take into consideration using an appropriate model that facilitates managing all the tasks in designing the content of blended and e-course that carried out by instructors. In this regards,(Reigeluth, 2013) demonstrated description of the core task of model in instructional design field "an integrated set of strategy components, download the particular way the content ideas are sequenced, the use of overviews summaries, the use of examples, the use of the practice, and the use of different strategies for motivating the students"(p.21).

From responses in the interviews and documents, it can be interpreted that, due to high demand for foundation courses by students, the University converted these courses to full e-courses. The foundation courses should be offered to all students in the first year with qualified design, interaction, and delivery. This is one of the reasons the University adopted the international model, Quality Matters, to design an effective e-course. Interestingly, KKU was the first university in the Middle East to adopt Quality Matters standards. This initiative is one essential step in the improvement of e-learning methods to support faculty members in designing and employing QM standards in their blended and full e-courses. At the same time, the Quality Team is responsible for increasing the awareness of the importance of ensuring high quality e-

learning and facilitating these standards through the different stages of the QM training program. Furthermore, this could encourage other Saudi universities to be pay attention to designing an effective online course based on comprehensive standards such as QMs.

First the University started to train their faculty members in how to use these standards in their both blended courses and e-courses in the training and quality department. However, the University faced serious problems as the Quality Matters standards were presented in English, as a consequence of which some faculty members were unable to participate in the training due to their English language capability. Later, the University managed to make an agreement with QM to translate these standards into Arabic in relation to meeting their needs in using QM standards. In this study, Quality Matters provided guidance for faculty members to design online courses and for e-specialists to evaluate faculty members' performance based on their standards. Some faculty members expected QM standards to be difficult, but after the development training program, they were able to refer to the standards as guidance whenever they needed them.

Overall, the faculty members reported that QM standards were an appropriate holistic development for linking the quality assurance of blended and full e-course. When the researcher asked how quality assurance can be addressed in e-learning, all participants responded that it could be done by using and benefitting from QM standards to produce effective, organized, and qualified e-course design, as well as eliminating negative perceptions

of poor quality in e-learning. This finding corroborated Legon (2015) study which found that using Quality Matters standards impacted positively on e-learning quality assurance.

Using QM standards, the University created a repertoire of 'Developed Courses,' which any faculty member in the same discipline can teach and may adapt or add some activities or information that can be useful for students. Furthermore, open courses are offered on the University website for learners and instructors across the Arabic world.

To be more specific, focusing on general standards, the faculty members used eight general standards, each of which has specific sub-standards. In this study the faculty members presented some of these using then QM standards. One example was the course overview and introduction standard that address how faculty members should clarify the course instructions and all the e-course requirements and policies to which the students should commit. Interestingly, one faculty members painted a fascinating image of the course overview and introduction standards describing them is as 'drip irrigation' which takes students around the e-course step by step starting with Start Here and ending with e-course grades.

On other hand, a few faculty members mentioned that using Quality Matters standards increased their workload, in terms of taking more time to create an e-course, especially in the modification process. For example, one faculty member stated:

I really face a challenge when using QM standards in managing my time to modify any errors when I fail in designing them in the right form which adds extra effort into my teaching duties.

This result is consistent with (Chen, Lowenthal, Bauer, Heaps, & Nielsen, 2017) study, which reported that faculty members struggled with the amount of time they actually spent designing the course according to Quality Matter standards.

In relation to the influence of using QM standards on students' outcomes, Al Zumor (2015) conducted a study of Arab students studying the English as a Foreign Language course, and found that using QM standards made a difference by improving the quality of the interactive e-learning environment for students and faculty members.

5.2.5. Technology infrastructure support

5.2.5.1. Hardware support

Both interviews and documents stated that the University played a role in implementing the technology infrastructure across University branches. For instance, two important kinds of technology are recognised in this study including, both hardware and software support (see Chapter four). As a result, the University first established the e-learning deanship that is responsible for controlling every task relevant to using any activities and providing qualified human and physical resources to achieve the quality of e-learning methods. It is significant that the e-learning deanship was formed to manage the structure of e-learning units in all female and male colleges across the University, to improve awareness of the effective use of e-learning methods and support for the needs of all stakeholders. Similarly, Arna'out (2016) highlighted the positive impact of having an e-learning deanship in Saudi universities.

The University provides the hardware for faculty members and students, including e-labs (see Chapter four) which are equipped with computers and workstations, in order to enable students to take their exams or complete their homework, particularly those students who have poor internet service at home or who live in remote areas.

As stated previously, the University is large and distributed across the area, which causes some obstacles in terms of lack of a studio in which to record the open courses and shortage of technicians in female colleges. Providing ICT tools and maintenance procedures is both costly and unpredictable (Alkharang & Ghinea, 2013). In spite of KKU in having put a great deal of effort into providing a range of software and hardware technology, and making technical its support service available weekdays across the university to solve any technical issues, the technology infrastructure is insufficient due to the large number of branches that belong to KKU across the province. For example, there is a shortage of e-studios in female colleges, with most being and located in the male colleges. In addition, the need for regular maintenance of some ICT tools was expressed by one faculty member, which is consistent with the findings of a previous study by Aldosemani, Shepherd, and Bolliger (2019), which examined issues faced by faculty members and students in one Saudi institution. Regarding blended learning, they found that a lack of technology infrastructure and technical issue significantly influence faculty members' and students' satisfaction. In this regard, the University should give more support to female colleges to eliminate these obstacles in order to achieve an effective e-learning environment.

As a result, the provision of an internet service in the KKU has a great impact in motivating the use of e-learning by faculty members and students. In fact, a good internet service is one of the most important components for a quality e-learning environment and to meet students' and faculty members' needs in Saudi universities, as demonstrated by (Mohamed & Nafie, 2018).

5.2.5.2. Software support

The University launched LMS using Blackboard for faculty members and students. In this study, Blackboard is considered as a communication channel that enables students and teachers to engage in the learning process synchronously or asynchronously in all types of e-learning across KKU, namely supportive, blended, and full e-courses. Through this platform, faculty members are able to use all its features in their regular courses, such as the discussion board, e-mail, a chat room, and a virtual classroom. Moreover, it is a collaborative tool, particularly in virtual classrooms by which the students can learn and be given feedback by their instructors. Some research has demonstrated that Blackboard can be deployed as an easy, flexible, and useful platform for interaction between students and faculty members (Heirdsfield, Walker, Tambyah, & Beutel, 2011; Lin, Persada, & Nadlifatin, 2014). In particular, a comparative study between Saudis universities by El Zawaidy (2014) on how interaction between faculty members and students on Blackboard found that faculty members at KKU were the users who enjoyed teaching via Blackboard the most. This might be due to some faculty members having been provided with regular training development programs, in the function of Blackboard, over the academic year. This finding supports a prior study by Alaofi (2016) conducted at Taibah

University, in Saudi Arabia, which found that, according to teachers and students, Blackboard platform generally had a positive impact on their experiences; they reflected that it made a positive change and facilitated the learning and teaching mechanism.

Regarding KKU website features, some educational and service tools are provided such as e-library, e-booklet, social media, different training channels, and e-community service, to enables faculty members to improve their experience and knowledge in using the e-learning system. Also, the University launched 'myKKU' as an App for students' phones to facilitate the use of e-learning, assists them to access Blackboard easily, and allow them to track any updates to their course, especially in the announcement features of the course. Also, this app provides various services for students including Blackboard, academic services, and transactions. Moreover, in this study most of the students responded positively regarding using this app, particularly on mobile device applications which are a useful way of accessing course content anywhere (Young, 2011). However, some students using the myKKU app have experienced technical issues such as it is crashing or freezing, which means they are sometimes unable to fully benefit from its features. there is a slight technical problem with this App which might prevents some students from using it, According to one student:

I like myKKU App which make the access to my e-course materials easy as I have my phone all the time with me. However, there is troubleshooting in Blackboard apps which prevents me using it frequently. In this case I use KKU website instead.

This finding is similar to that of a study conducted by (Khalid, Shihab, Nagappan, & Hassan, 2014) which found that most the issues affecting app quality are related directly to functional error and crashing, which can prevent the use of these apps.

Furthermore, this finding confirmed Squillante, Wise, and Hartey (2014) who stated that mobile applications, including Blackboard platform, offer a wide range of features that assist students and instructors in working collaboratively; however, they added that some students mentioned that they were dissatisfied with it due to the slow connection. From another point of view, Heirdsfield et al. (2011) added that Blackboard platform is considered an effective channel between instructors and students in terms of increasing two-way communication between them.

Besides the availability of technology tools in KKU, an important aspect of using any technology tools is to provide technical assistance for stakeholders, which the KKU does through customer services. If any student or faculty member encounters any problems in using the e-learning system, they can call the technical team or issue a ticket through the university website. Importantly, not all technical issues that occur are relevant to the technical support team in the e-learning deanship; some might be transferred to the University's IT system. Both faculty members and students are encouraged to use e-learning when they realize that there is a technical assistance team in their university to solve their problems.

The latest achievement of the e-learning deanship at KKU launched the KKUx platform which is considered an initiative of the e-learning deanship based on Saudi Kingdom Vision 2030.

This means that this initiative makes (KKUx) an Arab MOOC that offers different courses for job seekers to improve their skills for future employment.

In terms of ICT quality, (Delone & McLean, 2003) model comprises three concepts, namely System Quality, Information System, and Service Quality, which have been examined by different researchers who suggest that meeting these important concepts can have a positive impact on users' satisfaction and performance (Aldholay, Isaac, Abdullah, & Ramayah, 2018; Freeze, Alshare, Lane, & Wen, 2010; Saba, 2012). Most notably any institution which intends to ensure the quality of its e-learning system needs to pay particular attention to these factors in order to ensure stakeholders' satisfaction. High-quality ICT tools are necessary for an e-learning system (Junus, Santoso, Isal, & Utomo, 2015), to increase stakeholders' satisfaction and encourage them to continue using e-learning. Thus, generally, technical issues can have a major negative impact on the use of e-learning (Shattuck, 2013), and at the same time they can affect the quality of e-learning (Ehlers, 2012). In regards to technical problems, the university has a responsibility to provide students with all the reliable technology infrastructure tools in the learning environment (Mason & Rennie, 2010), together with the necessary technical assistance to sort out any problems (Masoumi & Lindström, 2012).

As a result, it is evident that a good technology infrastructure functions is significant factor in fostering good quality e-learning and motivates faculty members and students to collaborate effectively. In addition, it is important to understand that we cannot have good quality e-

learning unless we implement flexible, qualified, and up to update software and hardware technology infrastructure.

5.2.6. Student Support factor

Students' responses to the questions under the main question (how quality assurance is shaped by different factors provided by the University. These include institutional support, technology support, and training support which students received to enable them to use e-learning.

5.2.6.1. Institutional support

It is important that the University is aware of how to educate its students regarding the concept of e-learning, and of the advantages and challenges of e-learning, in order to familiarize the students with the e-learning environment. Aleven and Koedinger (2001) stressed that students should be familiar with the online environment, but that this will take a long time.

Interestingly, the University initially started to make its students aware by offering workshops on the concept of e-learning, which were delivered inside and outside the University, especially, in high schools close to the University campus. However, it was difficult for universities to cover all the female- high schools with this orientation workshop campuses are spread across the region. Thus, in 2014 the researcher was involved in this kind of orientation workshop in two female high schools, conducting workshops on the concept of e-learning, and e-learning system methods in the KKU environment.

As a result, in accordance with Quality Matters standards, faculty members are required to provide satisfactory clarification of policy regarding grades, assignments and learning objectives, for blended and full e-courses, in the course overview. For example, in this study, three students reflected that they were satisfied with the clarification of learning objectives in their courses and that they were informed, in advance, of all the e-course policies. This is consistent with the findings of Sun and de la Rosa (2015) who pointed out that the use of QM standards has a direct and important influence on students' satisfaction, particularly regarding the clarification of e-course objectives.

It is likely that this positive impact is related to two factors in terms of the quality assurance model: training faculty members in the effective use of QM standards in both blended and full e-courses; and constant evaluation of faculty members' performance by e-specialists based on these standards. Also, the policy regarding attendance of blended and full e-courses, delivered synchronously and asynchronously, is readily available on the KKU website.

5.2.6.2. Technology support

Based on the responses of four students and documents, both software and hardware have been implemented in the e-learning environment. In fact, the University attempts to provide all colleges with a variety of ICT tools, especially e-labs and mobile labs in both female and male colleges. Tables 12,13,14 in Chapter Four give a clear explanation of the availability of these labs across the colleges. E-labs, which in this study refers to a classroom equipped with workstations with computers, projectors and internet access, are considered a new trend in the

learning process. Faculty members are able to teach their students in these labs, in preparation for their mid- or final exams. Interestingly, the deanship of e-learning ensures that some of these labs are open during official hours for students to do their homework, which is an excellent service provided for students who are faced with poor internet connection at home, or who live in remote areas.

Also, technical issues are a barrier to students using ICT (Song, Singleton, Hill, & Koh, 2004), therefore the Deanship of e-Learning provides improved internet speed along with assistance service to solve any issues on the KKU campus. As mentioned previously regarding technology infrastructure support, not all technical issues are necessarily the responsibility of the e-Learning Deanship, as some are dealt with by the IT service; for this reason, both the e-Learning Deanship and the IT service cooperate to develop the quality of the e-learning system. In terms of interoperability in the e-learning environment at KKU, Naim et al. (2019) highlighted that the University was outstanding in the way the e-Learning Deanship and IT service worked together, and that there was strong relationship between interoperability and quality development.

In relation to the use of Blackboard via the KKU website by students, the students were asked a number of questions, some of which are shown below:

How does e-learning help to improve your learning in general?

Is there any support which increases your use of e-learning, if so, what?

Are there any challenges that prevent you from using e-learning, if so, what?

What is your opinion of the quality of e-learning at King Khalid University in general?

Blackboard is a popular LMS platform used by Saudi universities, including KKU. Indeed, although Blackboard is not the only platform that presents the e-learning process, it does offer a wide range of educational support for learners and instructors (Hamoodi, 2014). In this study, all the students reported a significantly positive impact from using Blackboard. They explored the value of two of its features: virtual classrooms and recording lectures and found that the virtual classroom is the main communication and collaboration tool between students and faculty member at KKU, through which students can learn and interact with their instructor. For example, one student mentioned that the virtual classroom is an alternative to the traditional classroom in terms of obtaining information and interacting with students. This finding is similar to that of Wahyuningsih, Satyananda, Octoviana, and Nurhakiki (2019) who demonstrated that using e-learning tools in lectures can motivate students and create students' activity in lectures.

Furthermore, the results of this study showed that female students were satisfied with using the virtual classroom as they can easily communicate and interact with the instructor instead of using TV tool that was previously used in traditional classrooms, due to the regulations regarding Saudi higher education. This is a significant point cited by one male faculty member and a female student in terms of availability of the virtual classroom and its quality, which resulted in the increase of its use to meet the needs female students.

The second feature is the recording of lectures by faculty members for student, for various reasons such as weak internet connection in students' homes. This is also a beneficial way for students to retrieve the contents of e-courses whenever they need them. Also, recording lectures is helpful for female students who may have family responsibilities as well as their studies.

5.2.6.3. Training program support

One of the main roles of any university is to integrate ICT tools in its environment, to provide e-learning training programs using different methods to motivate students. In the context of Saudi universities, a number of studies (Al-Zahrani, 2015a; Al Mulhim, 2014; Alzahrani, 2017) have emphasized the importance of ICT training programs for both faculty members and students in the e-learning environment. As a result, KKU provides two kinds of training program for students in their blended and full e-learning courses, specifically in the use of Blackboard: face to face and online training program. The online training program is delivered via a channel on the KKU website in an asynchronous way, which helps students to train themselves at any time. This channel presents short educational videos showing how to use Blackboard and illustrating the virtual classroom system. These educational videos are short in order to make them easy for students to use. One study in a Saudi university by Almalki (2011) showed that lack of training for students may cause resistance to using e-learning effectively, and the absence of training programs may cause students to become discouraged because they do not possess sufficient skills to utilise e-learning.

The results of the current study show that the availability of training programs might boost students' skills, thereby increasing their confidence when using Blackboard, and overcome the issues mentioned in the previous study, at least from staff and student perspectives. For instance, one student stated that the Blackboard system became easier and more understandable for her because of the training programs provided by the e-Learning Deanship. On the other hand, one student believed there was no need for this training program, as students can get help from their friends to learn how to use the Blackboard platform. This may be because students have little time for extra training via the University. As a result, there was complete agreement between the students and e-specialists in terms of the consultation offered in Blackboard tools system which they thought was positive in terms of increasing their skills and knowledge.

The results of this study indicate that KKU focuses more on developing training programs for faculty members and administrative staff than for students, hence there is a need to provide a balance between training programs for faculty members and students. For instance, it is not compulsory for students to attend an e-learning training programme, therefore they may need extra encouragement to do so; thus, the University might increase the awareness of students in relation to attending such programmes. In addition, the number of training programs should be increased over the academic year, perhaps with some with clear policy and guidance regarding attendance for both female and male students. This is compatible with Ismail and Salih (2018) who found that providing training programs on Blackboard platform was essential for increasing students' skills in Arabian Gulf University.

5.3. Summary of the chapter

In conclusion, this chapter explored the supportive factors involved in building quality e-learning at KKU from the perceptions of the faculty members, administrative staff, and students, together with information from KKU documents relevant to the e-learning system. In particular, it described how KKU provides its stakeholders with various backing in the use of e-learning strategies in all types of e-learning at the university. This study has shown that the e-Learning Deanship is heavily involved in all these factors, and it is impossible to ignore its efforts and the support it has provided to improve its stakeholders' skills and competencies in many instances. The e-Learning Deanship only works in a supportive role within the University; however, it has been influential in adopting sustainable practices of quality development in the e-learning environment. This influence is apparent in the supportive factors that push its stakeholders to practice effective quality assurance in e-learning.

For instance, it was noted that one strategy employed by KKU was that it adopted 'Quality Matters Standards' as a guide to ensure the quality of electronic courses and launched a development training program to build and enhance the competence of faculty members and administrative staff. These standards do seem to have been of critical importance in supporting the development and use of blended and full e-courses at KKU, not only in their design but in providing feedback about faculty members' performance, thereby providing opportunities to improve and enhancing their efficiency. This appears to have motivated the KKU to be a pioneer in the use of e-learning in Saudi universities which has then led some other Saudi

universities to adopt some of these strategies, such as Quality Matter standards, in their online-courses. These intrinsic factors cannot be neglected understanding the overall process of quality assurance in the e-learning environment of any university that intends to practise e-learning in the light of quality strategies and if they intend to use these factors as guidance.

6. Conclusions

6.1. Introduction

This chapter discusses the main research findings and provides a synthesis of the study. It looks at the extent to which the findings address the research questions, and the relationship between the results and the literature reviews with respect to the research context. Furthermore, it examines how far the research questions address the quality assurance phenomena.

To reiterate, the aim of this study was to explore and investigate the development of quality assurance in e-learning in one Saudi university, taking into consideration the key actors including faculty members, administrative staff, and students. The study fulfilled the aims of the research as shown in Chapter 3, and the findings were discussed in Chapter 5, in order to respond to the research questions. The following table (6.1) presents each research question integrated with the main themes, aims, and participants.

Table 6.1. Research question integrated with the main themes, aims, and participants.

Research Questions	Main Themes	Aims	Participants
From the perspectives of faculty members, students, and administration staff, what support factors facilitate the development of quality of e-learning among higher education, and in what way do they do so?	Institutional support Faculty members support Technology infrastructure support E-course design Student Support	- To determine and analyse the factors which help higher education and faculty members to teach and facilitate the high-quality provision of education within e-learning courses	Faculty members Administrative Staff Students
How has the University developed quality assurance in its online courses?	E-course design according to Quality Matter standards Faculty Members Evaluation	To explore the impact of the existing quality assurance model in improving development and quality enhancement of an e-learning environment.	Faculty members Administrative Staff

The following section provides a brief description of the answers to the research questions.

6.2. Research Question 1

From the perspectives of faculty members, students, and administration staff, what support factors facilitate the development of e-learning quality in higher education, and in what way do they do so?

This question focused on exploring the supportive factors that constitute quality for stakeholders using e-learning at KKU. In summary, to answer this question, the following

factors for potentially building quality assurance in an e-learning environment were determined in Chapter 4, as follows: institutional support; faculty members support; administrative staff support; e-course design; evaluation of faculty members; student support; and technology infrastructure support. These supportive factors were analysed using thematic analysis, and most of the participants in the study viewed them positively, based on their own experiences. For example, in terms of faculty member support, the participants (faculty members) received an ongoing development training program, the King Khalid University Learning Certificate (KKU-EC), in different methods see figure 4-2. Importantly, this program gradually upgrades the faculty members' skills in using the e-learning system and increases awareness among them, especially in meeting quality assurance in designing courses using Quality Matters standards in both blended and full e-courses. Moreover, some of them believed that this training program has been effective and useful in their teaching process, but that it is an extra burden for faculty members who already have teaching tasks and research commitments; this could be a barrier to them enrolling in both face to face and online training programs.

The literature review revealed that many factors have been explored and tested by different organizations for instance, Online Learning Consortium (formerly Sloan-C) created five pillars of online quality education which could be used as a framework for measuring and improving e-learning (Shattuck, 2014).

Another example of a supportive factor in this study is institutional support which can be divided into three main categories: e-learning policies, management structure, and e-learning vision. This factor plays a main role in clarifying all the policies of using e-learning to stakeholders. Overall, this study concludes that these intrinsic factors can be seen as columns, connected by bricks leading to quality e-learning and they are an integral part of the KKU e-learning environment. Additionally, KKU represented by the e-Learning Deanship, has put a great deal of effort into changing some traditional courses to blended and fully electronic courses, and improving the quality assurance in its e-learning system by supporting its stakeholders' performance. This has been done by providing various services and attempting to overcome some issues faced by its stakeholders in improving the quality and meeting their satisfaction. Further, this quality of the e-learning improvement process was carried out in conjunction with a strategic plan to attain its goals (see figure 5-2).

Nevertheless, some technical issues were highlighted by faculty members and students. There are e-labs available across the University branches which are used by faculty members and students, however these need to be maintained regularly by technicians and, in this regard, one college had a shortage of human-resources (technicians). In addition, one student perceived that there is a problem with myKKU app, which assists the students in accessing the Blackboard platform. In general, KKU pays close attention to developing an awareness of quality assurance in e-learning methods and supports increasing awareness among stakeholders of the importance of using e-learning in the teaching and learning process.

6.3. Research Question 2

How has the University developed quality assurance in its online courses?

Based on the findings from University documents and interviews in the current study, the answer to this question lies in one of the supportive factors that appeared earlier: designing e-courses according to Quality Matters standards. Furthermore, it is important to adopt or create a clear and comprehensive model that helps to meet the students' needs and more specifically increase the faculty members' skills, as faculty members are likely to be the main target audience to develop the quality of e-courses. In order to reach this goal, KKU was careful to adopt QMs in supporting its faculty members to design their blended and full e-course effectively, which led to ensuring the quality of those courses. Likewise, it provides extensive training to its faculty members in using these standards in e-courses and evaluates faculty members' performance in effectively using these standards. Furthermore, the University overcame one issue (the standards were in English) that appeared during the training program by obtaining permission from QM to translate these standards into Arabic so that all the faculty members and administrative staff would benefit. All participants (faculty members and students) indicated that using QM standards enriched their body of knowledge in relation to the skill of designing their blended and full e-course which, in turn, had a significant impact on quality assurance development and eradicating negative thoughts about lower quality in e-learning. Another important impact of the QM training program is that some faculty members and administrative staff become experts in designing online courses which is necessary for

online instructors, and they become accredited trainers, peer reviewers, and master reviewers at university level. Moreover, QM standards is used as the main evaluation tool in monitoring faculty members' performances in the e-learning environment by e-specialists in each college. More importantly, all the e-specialists reported that they evaluate faculty members' practices by concentrating on how well they use QM standards, not subject matter, which needs specialists in course content. Consequently, the findings for this question confirmed that using Quality Matters standards has a strong impact on improving faculty members' skills and on the development of high-quality blended and full e-courses.

6.4. Implications of the Present Study

In general, this qualitative research has added a unique and original contribution to the existing knowledge regarding the development of e-learning quality in Saudi higher education, and how this correlates to improve e-learning quality in Arab universities in general.

- The findings of this study bring significant understanding and guidance to policy makers, not only on how QM implementation was managed in the KKU environment in practical methods, but also on other factors that may increase quality of e-learning. For example, in order to support students in using ICT tools, the KKU initially focussed on establishing a large number of e-labs with useful computer systems for male and female students, and different training program methods to extend their knowledge in using the Blackboard platform in response to their evaluation of students' needs.

- One of the findings of this study has crucial implications for providing online testing with a clear policy, protection, and obligations, both for faculty members and students. It highlights the KKU's attempts to protect online-test content and prevent cheating by using different online-tests (Questions Bank, Random Mass, and Block Browser) which are considered as strategies to protect all kind of online-test contents. To the researcher's knowledge, this study is the first to show how one Saudi university has adopted and practised online tests following a specific set of guidance. This may help and inspire other Saudi universities in particular to employ online testing using the same strategies and obligations, and to resolve the issue of cheating highlighted in this study.
- This study has explored how KKU developed its faculty members and administrative staff in e-learning, in terms of establishing professional training development at different stages and using different means of delivery. To date, so far as I am aware, no studies have explored the strategy of training in enhancing the quality of e-learning. This finding contributes to policy makers in Saudi universities understanding of the importance of developing their faculty members' skills by introducing training development to faculty members and administrative staff.
- The study is qualitative in nature, using two data collection methods (interviews from multiple viewpoints and documents). As far as I am aware, this study is the first study to investigate quality development at KKU, or any other Saudi university, as a clear reference and broadly representative university in a high-income developing country

with regard to building a high-quality e-learning environment. Importantly, it has added an additional, richer understanding of how KKU has adopted this framework which is believed by participants to impact on factors ensuring quality of e-learning in one Saudi university, which could therefore be applied to other Saudi universities and could inform the HE sector more widely.

- For policy makers, the finding of this study can be used as a way to reflect on how to improve the quality of using e-learning from a specific instance, for example, exploring a few issues that relevant to the shortage of technicians in one college which can help the University to be aware of the need to overcome this issue. In addition, the technical problems perceived by students should also be considered.
- The broad conclusion from this study is that there has been a remarkable achievement in various forms of support provided by KKU to its stakeholders, in particular the supporting of faculty members in improving their skills in using e-learning. The findings from this study highlight the extent to which strategies were employed by KKU to make changes in the e-learning process, and how adopting QMs in e-learning is thought to have impacted on the way in which some faculty members become qualified as trainers in QMs, and how well they are able to design blended and full e-courses.
- The findings of the current study could enrich the body of literature on e-learning quality assurance in a Saudi context, where the education system is different to the western context, in that there is less coeducation. This study investigates how the design

of online courses can be enhanced by using QMs in distinct cultural and educational contexts. Moreover, the findings could be used broadly in the context of western literature. QM is an international framework launched by Maryland Online, which is a consortium of community colleges and senior institutions, and these standards have been used in most United States universities. Therefore, this study explores the flexibility of adopting QMs in a different educational system (Saudi universities). It may also inform the adoption and use of QM in other international contexts.

- In relation to the research methodology, this study adds new knowledge related to the real example of a practical qualitative research method, that has not been carried out in the Saudi universities' context. This study should help further research in using these methods, especially interviews with open questions which provide the opportunity for participants, including students, to explore their educational experiences and the researcher to obtain rich information. Also, documents method was used in this study (KKU's website, policy of using e-learning system, and QMs evaluation form) which is a useful method for backing up interview data.
- To use a thematic analysis methodology, which is demonstrated in Chapter 4, the researcher carried out multiple tasks to fulfil all the stages of thematic analysis developed by Braun and Clarke (2006) including reading-rereading, extracting coding, and making figures and tables. This method is a useful way of assisting researchers who intend to use a large amount of data from a broad variety of participants (Boyatzis,

1998).

- The findings revealed that KKU paid particular attention to restructuring management when it adopted its e-learning system, by appointing a quality team under the e-learning deanship, responsible for ensuring quality in both blended and full e-courses in line with QMs. Hence, the findings provide an opening for Saudi universities, especially policy makers and senior management, to follow or benefit from this strategy of reforming a hierarchical structure to promote quality practice under a qualified, specialist team that is responsible for ensuring the use e-learning across the Saudi universities e-learning environment.
- The National e-Learning Centre will benefit from the findings of this study in terms of the intrinsic factors that focus on improving and enhancing the quality of e-learning within the Saudi university context, and the ways in which some problems have been overcome by KKU that could improve the future of e-learning in general.

6.5. Recommendations for Improvement

Based on the findings of this study, the following recommendations could open a dialogue about providing further and clearer guidance for optimal practice development of e-learning and its quality. These recommendations are directed to two main audiences namely: the Saudi Ministry of Education and the e-Learning Deanship in the KKU environment.

6.5.1. Ministry of Education

As mentioned earlier, one of the aims of Saudi Vision 2030 is to expand the knowledge-based economy, and ICT is seen as a powerful tool, carried out under the National Digital Transformation to accomplish this vision. In this respect, the Ministry of Education is the body responsible for increasing the use of ICT by Saudi students and faculty members in order to improve the quality of education.

This study has highlighted the use of e-learning policy and how the KKU has worked to implement it in various aspects of e-learning. It showed how KKU adopted an international framework to ensure the quality of its e-courses. In order to improve the quality of online courses, the Ministry of Education should set out policy and guidance regarding adopting a comprehensive framework or model in designing e-courses and evaluating faculty members' performance. The implications from this study suggest this should be based on a unique and customised model, rather than adopting an international framework which may be unsuitable in the context of a Saudi university. Firstly, this framework, as a new project, could be set up and run under the National E-learning and Distance Learning Centre. Furthermore, it should be based on research and tested in different Saudi universities before being applied, after which the Ministry might establish it on the ground with a set of strategies as follows:

1. Increase faculty members' awareness through orientation workshops.
2. Train faculty members and designers in the standards of this model using qualified trainers.

3. Establish a competition between Saudi universities in terms of practising this model in an effective manner, perhaps providing monetary incentives.
4. Launch an annual conference related to the effectiveness of the model and to eliminate any drawbacks to improving the quality of blended and full e-courses. This would enable faculty members, design instructors, and top management to remain up to date with the latest research regarding e-learning in general and would help to reinforce the culture of quality of e-learning.

Although there is a prevalence of ICT tools provided by the Ministry of Education in the classroom and KKU e-labs, these tools need to be maintained frequently. Therefore, the Ministry should consider technical problems as a major main factor that hinders stakeholders from using e-learning effectively. Thus, external training programs should be held across Saudi universities, focussing on how to technicians can manage troubleshooting in ICT. Furthermore, they should give faculty members and administrative staffs who wish to increase their computer literacy, the opportunity to do so.

6.5.2. KKU e-Learning Deanship

In all KKU's efforts to improve quality assurance in e-learning, there is still the need to enhance the quality of the e-learning environment, based on some of the findings of this study. Notably, KKU has a large number of branches across the province; furthermore, in accordance with the education system, there are separate colleges for females are males. Thus, a great deal of time and effort is required to manage all aspects of the development of quality of e-learning across

contexts and equally for both males and females. The following recommendations are relevant to the technology infrastructure support to all faculty members:

- In the e-learning realm, the provision of necessary ICT tools is the main factor that makes the content of e-courses available for learners and teachers. The KKU uses some modern technology across the university but, it should pay extra attention to the importance of providing some female branches of the University with ICT tools. For instance, with regard to a particular type of studio that is used for recording open courses, one participant (faculty member) voiced his concerns that this kind of studio is mostly accessible for male faculty members, as indicated earlier in Chapter 4.
- The findings reported that there is still a need for an e-specialist in female colleges, so KKU should take this into consideration by providing more e-specialists or providing on-the-job training by faculty members who are qualified in using e-learning and QMs training other faculty members, and at the same time reducing their workload.
- Based on the findings of this study, there is a need for extra maintenance in computer laboratories, as reported by one faculty members in Chapter 4. This could be achieved by a technician who has practical experience, delivering the Ministry of Education's external maintenance training program to increase technical skills and knowledge, as recommended in the previous section. Furthermore, this study found that there is a hotline in each e-lab, but there is a need to improve this service in female e-labs. A CCTV device could be set up in each e-lab to facilitate the rapid and accurate diagnosis

of technical errors, using female technicians in order to maintain the privacy of female students and faculty members, in accordance with Islamic religion and culture.

- Technical issues, in relation to myKKUapp by students, were revealed in the findings of this study. This app is useful and accessible for student to check their progress and any announcements available on the Blackboard platform, instead of using a laptop. In this regard, KKU should set as a priority to update or fix the any issues frequently and monitor any delays in fixing technical issues.
- Training in using e-learning is crucial factor mostly centred on improving students' skills and knowledge. The findings reported that there is no strong policy regarding attending training programs for students, which can cause some difficulties or negative perceptions about the impact of using Blackboard. KKU should push to set a clear policy regarding attending training programs and take feedback from students in order to further improve its training programs.
- Overall, the findings of the present study indicate that faculty members and administrative staff are in favour of using e-learning, but there is need for better understanding of quality assurance tasks or processes as a whole; hence, intensive development training programs are required in all aspects of quality of assurance regarding the e-learning system. Importantly, these types of training would provide information and knowledge that is important to improve the quality of the e-teaching process.

As a consequence of recommendations, KKU made extensive efforts to adopt e-learning and it improved the quality assurance process, recently launching its own KKUx platform as well as incorporating with another Shams platform that works under National e-Learning and Distance Learning. However, emphasis should be put on enhancing both blended and full e-course quality and meeting its stakeholders' needs in e-teaching and e-learning, by benefit of this study or other studies that relevant to improving and enhancing quality assurance process in e-learning environment.

6.6. Limitations and further research

This study has attempted to fill the gap and contribute to the knowledge by responding to the above research questions regarding the development of quality assurance in KKU University in Saudi Arabia, from the perspectives of multiple stakeholder. However, a number of limitations need to be taken into consideration and mitigated for future studies, as follows:

1. In relation to the context of this study, it was carried out in one university in Saudi Arabia (KKU), and all the participants came from that university, therefore this study cannot be generalised to other countries. However, it could be replicated with participants with the same background in e-learning in different Saudi universities which are not using QMs in their online courses, to compare the impact of using QMs on ensuring the quality of e-courses or even blended courses.
2. The study focused on essential factors that build quality in KKU's e-learning environment. Future studies could explore one of these factors separately and in depth,

as an independent variable regarding the quality of e-learning and focusing broadly on students' perspectives in another Saudi university context that already uses an e-learning system.

3. The results drawn from this study looked at six factors involved in improving the quality of e-learning, with the design of e-courses based on QMs being one of these factors. The current study did not focus on this factor by examining or investigating each standard or the impact of each standard. As the use of QMs is very new in the Saudi context, it is strongly recommended that future studies should place great emphasis on each QM and how these standards could enhance the interaction between learners and faculty members in the Saudi context or other Arab contexts.
4. As mentioned previously in the Methodology Chapter, the researcher conducted data collection between June and August of 2017 in Saudi Arabia, which was the summer holiday, therefore it was difficult to find many participants. Researchers intending to carry out data collection for future research should take into consideration the different holiday times between the UK and SA.
5. In relation to methodological matters, male faculty members were involved in the interview process due to their qualifications and their domination as decision-makers in adopting e-learning and improving its quality. There was a lack of direct contact in face to face interviews by the researcher as, in accordance with the education system in KKU, males and females are segregated; therefore, the researcher used telephone

interviews to eliminate this problem. In this regard, there is a need for future studies in the Saudi context, in which the researcher female employs the same method used in the current study or focuses on females, as the female college in this study faces some issues regarding technological support as explained in Chapter 4 thus their needs should be a priority.

6. As mentioned in different areas of this study, KKU comprises a large number of colleges dispersed throughout the region. This was a major obstacle faced by the researcher and resulted in some of the colleges not being included in the data collection. Further studies, particularly in the KKU environment, should take this into consideration in order to obtain sufficient data.
7. As noted in the methodology chapter, my role and positioning as an insider (Finefter-Rosenbluh, 2017), Provided advantages allowing me, as researcher, access to the KKU, it's staff and students. Although I have tried to be as transparent as possible in the conduct of this research, this positioning may have affected me in ways that I am not aware of (Berger, 2015).

In conclusion, the present study has been a practical investigation that responded adequately to the research questions to bridge the gap in the literature by addressing the factors of development of quality of e-learning in KKU. The recommendations and suggestions for future research were presented to improve and enhance the e-learning method.

6.7. Final reflections of this study

I was strongly encouraged by KKU, where I work as a lecturer, to conduct my PhD outside of the country, for example in the UK. This inspired me to develop my PhD proposal on e-learning, before having it reviewed by another specialist, and was the starting point from which I began to develop my academic research skills on this journey. Before commencing this study, I thought I had learned a great deal about academic research during my Master's degree, but I soon realized that a PhD program requires more new knowledge, critical thinking skills, and patience. Hence, I began to pursue further knowledge in relation to new philosophical notions of educational research in general and qualitative research methods in particular. I also practised important aspects of qualitative research, including choosing the data collection method and the thematic analysing method, and selecting an appropriate study sample to answer the research questions.

The PhD stage has been both a difficult and rewarding time. I faced personal hardship when my mother passed away at the beginning of my PhD journey, and I considered leaving my studies and returning home; however my husband was a huge support in helping me to get through this sad time and I realized that every stage in our life involves happiness and sadness. Personally, during this PhD journey which has taken almost four years, I have learned a lot and gained many experiences, both practical and theoretical, in the field of quality assurance, e- learning, and research methodology. Furthermore, this journey has impacted on various aspects of my life; for example, I learned various things such as time management in my studies which I have also been able to implement in my personal life. Time management is hugely important to all researchers, and even more so if they are also a mother and wife, so I started to set a plan for

each day and week using software and hardware sticker notes on my laptop and walls. This was helpful for handling multiple tasks at once. The data collection enabled me to establish a relationship with some of the qualified faculty member in the e-learning deanship, some of whom I already knew as I am a lecturer at KKU. I am honoured that they were excited by the topic of my research and pleased with the progress of my research, and they encouraged me considerably.

Further, when I commenced this study, the main sample was faculty members and administrative staff; I did not think about exploring students' perceptions. However, my previous supervisor, Alan, advised me to include students' perceptions too. This was valuable advice and doing so enabled me to discover more aspects in quality of e-learning. In this vein also, I am glad this study give an opportunity to female and male students to express their experiences and feelings regarding e-learning practices.

By looking at people's experiences, I believe it is possible to learn and develop an understanding of dealing with people according to their qualifications within the educational environment. For example, it was the first time I had dealt with students outside of the teaching process, so I engaged in conversation with them on my research and other topics and through this I realized that some students are confident on giving their perception and suggestion. I believe that, as a researcher, this stage of my study will inspire me to continue to work on a different aspect of ICT in the education field, as ICT is an exciting, cutting-edge and fast-growing area.

At this point, as I complete my thesis, my hope is that this study will add valuable understanding of the progress of quality e-learning methods in the Saudi university context, and improvements in e-learning, as Saudi Arabia is the largest country in the Middle East.

Appendices

Appendix 1: Ethical Approval of Durham University

Durham University
School of Education

Shaped by the past, creating the future

28 February 2017

Zahra Alqahtani
zahra.m.alqahtani@durham.ac.uk

Dear Zahra

An exploratory study of e-Learning faculty's experiences of developing, implementing and enhancing e- courses for students at university in Saudi Arabia

I am pleased to inform you that your ethics application for the above research project has been approved by the School of Education Ethics Committee.

May we take this opportunity to wish you good luck with your research.

Yours sincerely,

Dr Nadin Beckmann
School of Education Ethics Committee Chair

Leazes Road
Durham DH1 1TA
Telephone +44 (0)191 334 2000 Fax +44 (0)191 334 8311
www.durham.ac.uk/education

Appendix 2 letter from King Khalid University

KINGDOM OF SAUDI ARABIA
Ministry Of Education
King Khalid University

المملكة العربية السعودية
وزارة التعليم
جامعة الملك خالد

إلـى مـن يهمـه الأمـر

تشهد عمادة التعلم الإلكتروني بأن الطالبة زهراء محمد ال بهال القحطاني قد أنهت رحلتها العلمية بجامعة الملك خالد -عمادة التعلم الإلكتروني- بنجاح خلال الفترة الزمنية ٢٠١٧/٠٦/٠٩ م إلى ٢٠١٧/٠٨/٣٠ م. وذلك بعد أن قامت بجمع المعلومات، وإجراء المقابلات وتلقي المساعدة اللازمة لإتمام رسالة الدكتوراه في جامعة درم في المملكة المتحدة. وقد منحت هذا الخطاب بناء على طلبها، سائلين المولى لها التوفيق والسداد في حياتها العلمية والعملية .

والله يحفظكم ويرعاكم،،،،

عميد التعلم الالكتروني
د. فهـد بن عبدالله الأحمري

e-mail: eltc@kku.edu.sa | ٢٤١٨١١٥ : | ٢٤١٧٦١٤ : | ٩٦٠ : أبها –
elc.kku.edu.sa

Appendix 3 : Pre-questionnaire Form

Data relates to Faculty information

Personal information

Name: ……

College:……..Department:……

Age: ……

Position: ……

Years of experience:……

Nationality: ……Your native language……

Gender: ……

Your experience with E-learning:

Supportive 10% Blended "how much %? ……" developed courses (name of the course……)

Could this interview be conducted using the phone? Yes No if yes?

Your phone …… Your email: ……

Appendix 4 The English Version of the Consent Letter to participants

[08/11/2016]

Title: Ethical application

You are invited to take part in a research study that is an eexploratory study of e-Learning faculty's experiences of developing, implementing and enhancing e- courses for students at university in Saudi Arabia. Please read this form carefully and ask any questions you may have before agreeing to be in the study.

The study is conducted by Zahra Alqahtani as part of PhD student at Durham University.

* This research project is supervised by Dr Alan Walker-Gleaves and- Dr Jonathan Tummons from the School of Education at Durham University.

The purpose of this study is to understand the nature of the quality assurance strategy and process in relation to digital learning environments. If you agree to be in this study, you will be asked to be interviewing.

Your participation in this study will take approximately 40 minutes.

You are free to decide whether to participate. If you decide to participate, you are free to withdraw at any time without any negative consequences for you.

All responses you give or other data collected will be kept confidential. The records of this study will be kept secure and private. All files containing any information you give are password protected. In any research report that may be published, no information will be included that will make it possible to identify you individually. There will be no way to connect your name to your responses at any time during or after the study.

* FUNDING is through the Saudi Arabia Culture Bureau.

If you have any questions, requests or concerns regarding this research, please contact me via email at Zahra.m.alqahtani@durham.ac.uk or by telephone at [redacted]

This study has been reviewed and approved by the School of Education Ethics Sub-Committee at Durham University (date of approval: DD/MM/YY)

Zahra Alqahtani

Leazes Road
Durham City, DH1 1TA

Telephone +44 (0)191 334 2000 Fax +44 (0)191 334 8311
www.durham.ac.uk
Durham University is the trading name of the University of Durham

Appendix 5 The Arabic Version of the Consent Letter to participants

Durham University
School of Education

بسم الله الرحمن الرحيم

عضو اوعضوة هيئة التدريس/ وفقكم الله

السلام عليكم ورحمة الله وبركاته

تقوم الباحثة بدراسة بعنوان " دراسة استكشافية لخبرات أعضاء هيئة التدريس في ضمان جودة التعلم الإلكتروني من الناحية التطويرية, والتطبيقية, والتعزيزيه للمواد الالكترونية بجامعة الملك خالد". ونظرا لإهمية وجهة نظركم (كأهم المطورين والمساهمين في تطويرالتعلم الإلكتروني).

خبرتكم في تطوير جودة التعلم الالكتروني واستخدامه سيكون لها الأثرالكبير في إنجاح هذة الدراسة. كما انها ستساهم بإذن الله في تطوير جودة التعلم الإلكتروني في الجامعات السعودية و في جامعة الملك خالد بالتحديد.

الرجاء قراءة هذا النموذج جيدا وفي حالة الاستفسار اتمنى السؤال عنه قبل موافقتك لاجراء هذا الجزء من الدراسه. تجرى هذه الدراسه بواسطه عضوة هيئة التدريس بجامعة الملك خالد وطالبة دكتوراه بجامعة درم بالمملكه المتحده. هذا المشروع البحثي يشرف عليه الدكتور ايلن والكر-قليفس و الدكتور جونثان تومونس بجامعة درم .

الهدف من هذه الدراسة فهم طبيعة استراتيجية ضمان الجودة وعلاقتها بالبيئه التعليميه الإلكترونية.

في حالة موافقتك بالمشاركة في هذا الدراسة فسوف يطلب منك عمل مقابلة معك.

مقابلة سوف تاخذ حوالي 40 دقيقة. علما لك الحرية في المشاركة وايضا الانسحاب في اي وقت تريد.

جميع الاجابات و البيانات التي سوف تعطي بواسطتك سوف يتم التعامل معها و جمعها بسرية تامة. سيتم الاحتفاظ بسجلات هذه الدراسة بشكل آمن. جميع الملفات التي تحتوي على أي المعلومات التي تعطيها هي محمية بكلمة مرور. في أي تقرير بحثي قد نشر سيتم تضمين أي معلومات من شأنها أن لا تجعل من الممكن التعرف عليك شخصيا. و لايكون هناك أي وسيلة للاتصال باسمك في أي وقت أثناء أو بعد الدراسة.

يمكنكم عند الرغبة في معرفة المزيد حول هذة الدراسة التواصل معي من خلال(Zahra.m.alqahtani@durham.ac.uk)

شاكرين لكم تعاونكم ومقدرا لكم تكرمكم باللإجابة, سائلآ الله تعالي أن يكتب لكم الأجر.

Appendix 6 Declaration of Informed Consent

Durham University
School of Education

Shaped by the past, creating the future

- I agree to participate in this study, the purpose of which is to understand the nature of the quality assurance strategy and process in relation to digital learning environments.
- I have read the participant information sheet and understand the information provided.
- I have been informed that I may decline to answer any questions or withdraw from the study without penalty of any kind.
- I have been informed that data collection will involve the use of recording devices.
- I have been informed that all of my responses will be kept confidential and secure, and that I will not be identified in any report or other publication resulting from this research.
- I have been informed that the investigator will answer any questions regarding the study and its procedures. Zahra Alqahtani at School of Education, Durham University can be contacted via email: Zahra.m.alqahtani@durham.ac.uk or telephone [redacted]
- I will be provided with a copy of this form for my records.

Any concerns about this study should be addressed to the School of Education Ethics Sub-Committee, Durham University via email to ed.ethics@durham.ac.uk.

_____

Date Participant Name (please print) Participant Signature

I certify that I have presented the above information to the participant and secured his or her consent.

_____

Date Signature of Investigator

Leazes Road
Durham City, DH1 1TA

Telephone +44 (0)191 334 2000 Fax +44 (0)191 334 8311
www.durham.ac.uk
Durham University is the trading name of the University of Durham

Appendix 7: Arabic Version Informed Consent Form

الموافقة المسبقة

•أوافق على المشاركة في هذه الدراسة، والغرض منه هو أن فهم طبيعة الاستراتيجية لضمان الجودة وعمليتها فيما يتعلق بيئات التعلم الالكترونية من منظور إعضاء هيئة التدريس.
•لقد قرأت ورقة المعلومات السابقة وفهمت المعلومات المقدمة.
•لقد أبلغت بأنني يحق لي رفض الإجابة عن أي أسئلة أو الانسحاب من الدراسة.
•لقد أبلغت أن جمع البيانات سوف تنطوي على استخدام أجهزة التسجيل.
•لقد أبلغت أن كل إجاباتي ستبقى سرية وآمنة، وأنني لن يتم تحديدها في أي تقرير أو غيرها من المنشورات الناتجة عن هذا البحث.
•لقد أبلغت أن الباحث سوف يجيب على أي أسئلة بخصوص هذه الدراسة وإجراءاتها.
عند الرغبة لمزيد من المعلومات حول هذة الدراسة التواصل معي :
زهراء محمد ال بهال ، جامعة درم يمكن الاتصال عبر البريد الإلكتروني Zahra.m.alqahtani@durham.ac.uk
أو عبر البريد الإلكتروني للجامعة: ed.ethics@durham.ac.uk

التاريخ: إسم المشارك : توقيع المشارك:

أشهد أني قد قدمت المعلومات الواردة أعلاه إلى المشارك والمضمون له و موافقتها.

توقيع الباحث:

Appendix 8 Questions addressed to faculty members

1- Describe your experience in using e-learning methods

2- What are the factors that help you to use e-learning?

3-What are the needs and instructions of teaching staff in the field of e-learning?

4-What impact has the e-learning deanship had on motivating you as a faculty member to use the e-learning system? Has it influenced you to use e-learning?

5-What impact has the e-learning deanship had in overcoming any obstacles?

6-What challenges do you face from basic hardware and software with regards to teaching electronic courses or practising e-learning?

The following questions are more related to the Quality in E-learning system:

1- What is your opinion on quality assurance in e-learning at KKU?

2- What impact does quality assurance have on your teaching in e-learning?

3- How do you define the quality of e-learning?

4- How can you structure quality assurance in your e-course?

5- What collaborative technologies tools (e.g. virtual class or discussion board) can be used to provide high quality teaching in e-learning?

6-How do you ensure your e-course goals are met?

7-How can you measure or evaluate the success of your e-course?

8- What barriers do you face in applying e-learning quality?

9- What support factors would help you practise quality in your e-learning?

If you have experience with or have occupied a position using Quality Matters, please explain in detail.

10- What e-learning skills do you already have and how can you apply quality assurance standards to your teaching and assessment of students' work in e-learning?

11-What is your opinion of the quality of e-learning, specifically with regards to Blackboard?

If you have additional information, please add it here.

Appendix 9: Questions addressed to administrative staff.

1- What are the strategies that KKU depends on?
2- Is there sufficient administrative and financial support for e-learning? If so, what are they?
3- What efforts has the University made to motivate faculty members and students?
4- How is awareness raised using e-learning?
5- Is there a particular strategy to ensure that e-learning is not an additional burden for teaching staff?
6- How does Khalid University meet the training needs of faculty members?
7- What are the obstacles that affect quality practice in your e-learning?
8- Is there a separate training and development department at KKU responsible for this task? If so, what are their functions?
9- How does the e-learning system at KKU help provide new products or services to users?
10- What e-learning facilities are available for academic staff at the University? How effective are they?

Appendix 10: Interview questions for students

How does e-learning help to improve your learning in general?

What are the advantages of using e-learning from your point of view?

What efforts has the University made to motivate you in e-learning?

Is there any support which increases your use of e-learning, if so, what?

Are there any challenges that prevent you from using e-learning?

What are your current e-learning skills?

What is your opinion of the quality of the e-learning system in terms of using Blackboard:

Ease of use

Quality of information

Quality of scientific content:

How do you evaluate the blended and full e-courses?

What is your opinion of the quality of e-learning at King Khalid University in general?

Is there anything else you would like to mention related to the e-learning system and its quality?

Appendix 11: Text of the original interview, the code, and themes and sub-themes

Interview's faculty member

Transcript	Coding	Theme
When they first use e-learning …. most faculty members have no experience in using Blackboard and its tools, or in downloading lectures	Less experience No skills	
	Comprehensive training	
I teach female master's students via the virtual classroom	Solution for shortage of faculty members	Advantage of e-learning
Virtual classes improve the process of communication between students and the faculty member during the course of a lecture… If students do not understand lecture well they can re-watch and review it at any time.	Benefits of the virtual classroom Easy communication Record students' attendance Reiteration of subject content	Virtual class quality Lecture capture Enhance learning
Deanship of electronic work provides training courses in e-learning for students and faculty members and also offers an e-channel which is called Tamkeen channel …. Deanship of e-learning follow-up faculty members to send reports on how long they use e-learning during academic year and term .. This evaluation form shows what faculty members have successes in any part or icon of Blackboard…or lack of using any its icon… I am taking high grades and evaluation in this follow-up…	Training program e-channels Continuous evaluation of faculty members Annual faculty performance Analysis of faculty member's performance Provide feedback on a faculty member's performance Successful use of e-learning	Enhance quality by deanship of e-learning support Evaluation of faculty members factor

If I fail to use any icon I try to correct this and use it effectively and this help me to ensure quality …	Enhance quality in e-learning	
In fact, we found it difficult to use e-learning, especially in accounting materials….	Resistance of change	Faculty attitude change
In the beginning, using e-Learning was an additional burden in terms of attending the courses with our work duties…	Workload	Hinder factor
We realized that it became a means of helping in teaching …	Useful way	
I have seminars or meetings so here I can inform students the lecture will be available in Blackboard instead of missing the lecture…	Overcome missing lectures Solution for missing lecture	
The e-learning Deanship chose me to develop one of my courses (Accounting), so I tried to develop it well using modern topics taught outside SA…	Developed open course Created an effective e-course	e-courseware quality
I have taught two e-courses on the KKU site (open courses)….		
I was trying as far as possible to design a good e-course which required advanced features and functions in graphic design…	Well designed textual content Keep things simple and clear	
I used clear images and animations …		e-course scenario
I designed an attractive form which includes the right theme font, theme colours to produce e-course...	Attractive graphic design	
An instructional designer assisted me during the designing and recording of the e-course then worked on the editing, correcting any errors	Instructional designer assistance Editing design form	Instructional designer support

This year, a new method has been put in place to ask faculty members to identify e-courses that can be taught partially or fully then upload them automatically to our accounts…	Easy process of Registration Save time and effort of faculty member	Quality of Registration full and partial e-course
When I developed my open courses I spent a large part of my time sitting in the e-course studio and KKU paid for an instructional designer to sit with me while I recorded the e-course to teach me how to record it and then to edit it	Consume time Teamwork editing	Opened course
The university has given many prizes to encourage faculty members for example Professor Adel .. he is peer review in the electronic courses…	Stimulate faculty members	Faculty support
The internet is robust at university level and is constantly having a computer on the office of faculty members.. Last night, I attended a training course in the electronic Deanship which was equipped with the latest computers….	Quality internet service Provide technical tools Update with new technology tools	Technical infrastructure support
I believe that KKU site became easy and clear through training programs… Organised information and announcements.	Clear website for faculty Platform Training program	Quality of service Quality information

Appendix 12: The result of evaluation of using QM standards

Standard	Result	Note
General standard 1: 1.1 **- Instructions clarify how to get started.** 1.2 **– Students are introduced to the goals of the e-course.** 1.3 **Instructor introduces himself/herself.** 1.4 **Students are asked to introduce themselves to the class.**	**Achievable** **Achievable** **Achievable** **Achievable**	
General standard 2: learning **2.1- Learning objectives are stated** **2.2- Learning objectives are clarified** **2.3- Learning objectives are relevant and competent.**	**Achievable** **Achievable** **Achievable**	
General standard 3: assessment **3.1- Assessment measures the learning objectives** **3.2- Grading policy is clear.** **3.3- Descriptive criteria is provided.** **3.4- Select the assessment instruments to be sequenced and varied.**	**Achievable** **Achievable** **Achievable** **Achievable**	
General standard 4: instructional **4.1-All the resources and materials should be used.** **4.2-Clarification of the required and optional materials.** **4.3- Contribute instructional materials to complete of the course.**	**Achievable** **Achievable** **Achievable**	
General standard 5: course interaction **5.1- The instructor's plan for classroom response time and feedback on assignments is clear.**	**Achievable**	
General standard 6: course technology **6.1- Course tools and media support student engagement and guide students.**	**Achievable**	
General standard 7: learner support **7.1- The course instructions link to a clear description of technical support.**	**Achievable**	
General standard 8: accessibility **8.1- The course employs accessible technology.** **8.2- The course contains equivalent alternative to auditory and visual content.** **8.3- The course is designed for readability.**	**Achievable** **Achievable** **Achievable** **Achievable**	

Standards of virtual classroom.	
Variety of asynchronous lectures.	
Portion of attendance is determined.	**Achievable**
Time of synchronous lectures is selected	**Achievable**
	Achievable

Appendix 13: Introduction standards for a blended course syllabus

Table (10)

Weeks	Week 1& Week 2 Face to Face Session	Week 3 Face to Face Session Online Session	Week 4 Face to Face Session Online Session	Week 5 & Week 6 Face to Face Session Online Session
Learning objectives	Discuss concept of e-commerce, recognize the difference between first wave & second wave and compare second wave of growth with a new focus on profitability.	Summarize basic technology infrastructure for electronic commerce. Discuss packet switched networks, multistage switch, circuit switch-TCP/IP protocols	Discuss the concept of different revenue models present for e-commerce. Discuss the revenue strategy issues that companies face when selling on the web.	Discuss the disadvantages of e-business. Learn various e-business models. Know internet marketing and marketing Strategies.
Topics	Chapter One Introduction to ecommerce. Advantages and disadvantages of ecommerce.	Chapter Two Technology infrastructure - packet switch network and its basic operation. Types of switches, advantages and disadvantages.	Chapter Three Revenue Model: Web C catalogue, digital content advertising supported, advertising subscription mixed, and fee based revenue model.	Chapter Four Legal, ethical and tax issues. E-business models. Internet marketing. Marketing strategies. Market segmentation
Content ype files	PPT, video, web pages, lecture handouts	PPT, video, lecture handouts, web Pages.	PPT, link on PDF, video, lecture handouts web pages	PPT, link of PDF, video, lecture handouts, images,
Activities	Formal Introduction between students and the teacher. Brain storming session before the start of topic. Discussion & role play after watching related video.	Brain storming session before the start of topic. Draft a study and submit to a realistic brief on Internet connection option for university in face to face session. Discussion & role play after watching related	Brain storming session before the start of topic. Practical examples for buying on net like paying through visa card for Saudi Airlines tickets. Live cases to understand	E-Quiz & case. Simulated elaboration of payment system through net technology. Real or simulated professional practice. Discussion & role play after watching related video.

		video.	how and which companies adopted ecommerce. Discussion & role play after watching related video.	
assessment	Topic on discussion board relevance of ecommerce. Critical discussion on the e- Commerce course solution. Feedback report on the e-commerce video of Written examination	Investigative short project on the link on B2B e-commerce path of software. Verbal report on technology infrastructure. Written examination	Assignment on the link to selling on the web-revenue model. Assessment on critical discussion on Pepsi Revenue model. Assignment on credit card fraud. E-Quiz-1 Written examination	Assignment on a case study on internet tax Investigative short project on four payment method on Web. Report on the link between market research and e-commerce. Report on the video of e-commerce business plan. E-Quiz-2 Observation of virtual professional practice on e-payment methods. Quiz (face to face) Written Examination
Alignment	Yes, aligned	Yes, aligned	Yes, aligned	Yes, aligned

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