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The Role of Academic Libraries in Supporting Distance Learning in Saudi Higher Education: A Case Study Approach

By

Fahad M. Alfrih

A Doctoral Thesis submitted in partial fulfilment of the requirement for the award of Doctor of Philosophy of Loughborough University

August, 2010

ABSTRACT

This study aimed to investigate the role of academic libraries in Saudi higher education in supporting distance learning (DL) in the country. Two cases, known for their history of offering DL programmes in the country, were selected. These were Imam Mohammad Bin Saud Islamic University (IMBSIU) in Riyadh and King Abdul-Aziz University (KAU) in Jeddah. A mixed methodology, which included both qualitative and qualitative approaches, was used. Triangulation of data collections methods was achieved by implementing a document analysis, interviews and questionnaires. The results indicated that DL in the country is transforming traditional approaches into fully automated techniques through the implementation of e-learning via the Internet; the Saudi government is supporting this approach. However, the results also showed that policies of academic libraries lack rules which recognise DL stakeholders' right to be served and supported. Little or no co-operation was found to exist between academic libraries and DL deanships in both case studies; this could hinder the efforts made by academic libraries to serve and support DL stakeholders. In addition, textbooks were found to be the main source of learning and teaching in DL, thus reducing the desire of DL stakeholders to use their academic library. The lack of DL guidelines was found to be responsible for making distance learners less likely to use information resources other than textbooks. Official interactions were weak between DL stakeholders, especially learners with their instructors, and with academic and non-academic support such as academic library services. This was found to be responsible for a lack of academic library support specifically designed for DL stakeholders, and many other factors relating to the existing condition of academic libraries were also found to be significant in failing to recognize the right of DL stakeholders to be served. However, overall, participants' attitudes toward the importance of academic libraries in supporting DL stakeholders were positive. Moreover, participants expressed a desire to find solutions as soon as possible to overcome the current lack of information services designed for DL stakeholders. According to this study's results, several recommendations have been formulated related mainly to the importance of building co-operation between academic libraries and DL deanships in the country. It is concluded that there is an urgent need for DL stakeholders' needs and rights to be recognised and supported by any means in order to improve the quality of DL. Hence, several models/solutions, which can be implemented in either the short or the long term, are proposed here in order to provide solutions for the current lack of information services being offered to DL stakeholders by both academic libraries and DL deanships.

Keywords: Academic Libraries, Distance Learning, E-learning, Higher Education, Information Services, Saudi Arabia.

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DEDICATION

I largely dedicate this thesis to my lovely mother, Hesah, to whom I wish a quick recovery; to my father, Mohammad, who is just waiting for me to return to be close to him in his old age; to my Wife for her patience, support and encouragement in helping me to make this achievement come true; to my three lovely little daughters who pushed me to achieve my goal by always asking the question: When you are going to finish?; to my sisters and brothers who supported me and took care of my parents while I have been abroad; and finally, to my sponsor, the Institute of Public Administration, for its financial support which allowed me to study this topic and to finish my thesis.

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GLOSSARY

Abbreviation	Full Name
ACRL	*Association of College & Research Libraries*
AL	*Academic Library*
ALs	*Academic Libraries*
AOU	*Arab Open University*
BBS	*Bulletin Board System*
CAUL	*Council of Australian University Librarians*
CBT	*Computer-Based Training*
CDLP	*The California Distance Learning Project*
CD-ROM	*Compact Disc - Read Only Memory*
DDLM	*Demand Driven Learning Model*
DE	*Distance Education*
DL	*Distance Learning*
GCC	*The Gulf Cooperation Council*
HE	*Higher Education*
ICT	*Information and Communication Technologies*
IDL	*Interactive Distance Learning*
IMBSIU	*Imam Mohammad bin Saud Islamic University*
IRs	*Information Resources*
ISD	*Information Science Department*
ISs	*Information Services*
IT	*Information Technology*
K-12	*The North American designation for primary and secondary education*
KACST	*King Abdul-Aziz City for Science and Technology*
KAU	*King Abdul-Aziz University*
KM	*Knowledge Management*
KSU	*King Saud University*
MHE	*Ministry of Higher Education*
MOE	*Ministry of Education*
MEP	*Ministry of Economy and Planning*
ODL	*Open & Distance Learning*
OPAC	*Online Public Access Catalogue*
OU	*Open University*
PD	*Professional Developments*
RPR	*Resources - Practices – Results*
SA	*Saudi Arabia*
T.V	*Television*
TQM	*Total Quality Management*
UK	*United Kingdom*
USA	*United States of America*
USDL	*United States Distance Learning Association*
VLE	*Virtual Learning Environment*
WBT	*Web-Based Training*
WTO	*World Trade Organisation*

Chapter One
Introduction

1.1 Introduction

Distance learning programmes within Higher Education (HE) institutes have been developed widely both during the last century and at the beginning of this; their pedagogical quality is improving with the advent of new communication technologies (ICTs) and delivery methods. Higher education institutes all over the world are developing new programmes to provide online and other types of distance courses to a large segment of society; this is considered to constitute a valuable investment in individuals, organisations and resources, while the benefit for the institutions and the learners make such efforts worthwhile (Robinson 2008). However, having potential HE learners at a distance entails the use of parallel academic and non-academic support, such as library services, for their benefit as well as for the benefit of learners on-campus (Concannon *et al.* 2005). The academic libraries in HE institutes play an important role in providing the main resources for teaching, learning and research for both on- and off-campus education. This study investigates the role of the academic library in supporting distance learning (DL) programmes in HE in SA.

The benefits of an academic library and its services to all the academic community are clear. Hardesty (2006) stated that: "We believe that the collections of traditional academic libraries and the services of librarians are vital for students in obtaining the benefits of a college education". In addition, Lindauer (1998, p.559) concluded his study by saying: "Academic libraries, computer/information technology units, and their staff do make a significant difference in the quality and outcomes of learning and teaching". In addition, Mason (2001, pp.74-75) confirmed the importance of library support to facilitate online learning. The role of the academic library in general in supporting distance learners, as Hahn (n.d.) suggested, can be seen through its involvement in DL partnerships in several ways. First of all, distance programme administrators can administrate the distance programmes by cooperating with the library. Secondly, the library's facilities, and its networking and computing staff, are well suited in helping to create virtual classrooms, as well as managing both synchronous and asynchronous communication in DL. Several studies have shown the importance of the academic library and its information resources for effective distance learning. For instance, Oladokun (2002, p.300) concluded his study regarding academic libraries and DL by saying: "Library support service is a necessary tool that should be taken into consideration and given a priority when an institution begins open a distance education programme". Further discussion on this topic is included in Chapter 3.

Today, academic libraries play a range of advanced roles and functions which can enhance the quality of distance educational achievements. Some of these functions have been recognised by Hahn (n.d.) and can be clearly identified as including or providing the following:

- Online services. Academic libraries can provide online reference services and can thus provide distance users with the information available to on-campus learners. Libraries can also provide online document delivery services and can maintain files of electronic reserves.

- Networking. Networking, computing and e-resources are important functions that should be provided by academic libraries as well as by computer centres. Today, some academic librarians administer local networks, multi-campus networks, regional or shared networks, and servers on the Internet.

- Information Technology. The continuous developments in ICT have given academic libraries and some of their staff the responsibility of designing, updating, improving and maintaining websites and other online information available in the library.

- Digitising. Many academic libraries and their librarians are responsible for digital resources; this means they should be able to digitise all kinds of materials (in accordance with copyright laws as well as costs) and this allows electronic access to library collections. This is very useful for users, including DL stakeholders.

Beside the functions described above, there are several roles that academic libraries have to maintain in order to provide quality information services. These are as follows:

- The collection development role that provides the materials for research and scholarship and involves selection, acquisition, processing for access, and control.
- The information consultation role that guides the student or faculty member toward the best materials to meet their information needs.
- The instruction role that helps develop students (and faculty) into information fluent citizens capable of long-term continued self-education and effective and ethical use of information.
- The archival role of collecting, preserving and carefully sharing the historical records of an institution and the people who have worked there.
- The incredibly important and under-appreciated role of special collections in creating a unique intellectual focus and identity for an institution.
- The role of the library in providing, not only spaces for group study or digital media creation and viewing, but for individual reflective work—for people who don't care a whit for an "information commons" and do not need or want to work or study with others. (Hisle 2005, p.175).

In addition, Campbell (2006, pp.20-28) listed several new/old roles and functions that academic library and librarians have to use and/or develop in order to take advantage of developments in ICT. These functions can play a unique role in supporting DL programmes as follows:

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1. Create metadata: libraries and librarians usually catalogue library materials in order to make them accessible to users. Metadata constitutes a new method that allows information to be accessed through the Internet.

2. Providing virtual reference services: reference services have been developed to be provided at distance and through technologies such as online chat, individual consultation, e-mail, telephone and fax. These days, reference services have become more virtual. Librarians now have the role of providing assistance in the web-based knowledge environment.

3. Teaching information literacy: the academic librarian has to play the role of training and educating users in the best methods of using the library and its services; this may be through adopting new technologies such as using the web.

4. Selecting resources and managing resource licenses: with the fast growth of technologies, especially in libraries, acquisition processes are very systematic and easy to carry out. Resources, such as e-journals and e-books, are issued digitally and made accessible on the web. These are usually available in groups which will allow academic libraries to have a range of publications from different publishers; librarians have to be aware of these new trends and understand negotiation licences.

5. Acquiring and digitising archival materials: collecting and digitising archival materials may widen the future role of academic libraries and their staff.

6. Maintaining digital repositories: academic libraries can play an important role in managing and maintaining digital repositories in their universities. These repositories can play a unique role in creating a digital library which can be beneficial for the whole of academia including DL stakeholders.

Thus, developments in the delivery of academic library services have required librarians to improve their skills and to focus their interests in dealing with new information technologies such as online databases, using the Internet, e-resources, library 2.0, web 2.0…etc.

1.2 Purpose of the Study

The purpose of the study is to analyse the perceptions of distance learning (DL) stakeholders, such as faculty and learners, as well as ICT managers, academic library administrators, and other key figures in higher education (HE), concerning the role of the academic library in supporting DL programmes within Saudi HE. The purpose is also to identify challenges, problems, barriers and initiatives that participants believe are affecting the support offered to DL programmes especially in relation to academic library support. Furthermore, this study

intends to provide suggestions for practical solutions regarding the provision of library and information services to support DL programmes in Saudi Arabia (SA) including models of library provision for distance learning.

1.3 Statement of the Problem

One important element in the education cycle is to understand the methods and the processes of learning and teaching and to understand clearly teachers' and learners' needs. The Kingdom of Saudi Arabia is a country interested in improving its higher education (HE) system, as well as making HE programmes available to all of its citizens in parallel with its 8th Development Plan (DP). However, the Saudi government is facing serious challenges in HE, many of which are described in detail in Chapter 2. These include:

1. The shortage of places available to high school graduates.
2. More pressure is being put on Saudi public universities to accept more students to fulfil government plans.
3. Other general challenges facing higher education in SA:
   - Weaknesses in the quality of graduates from Saudi public universities;
   - The weakness of its research projects;
   - The last world universities' ranking placed most Saudi public universities at the tail end of the list (Khaleej Times Online 2006, Webometrics Ranking of World Universities 2009; Fergany 2000, p.1 and p.21; MEP 8th DP, 2005)

These challenges, and others identified by the 8th Saudi Development Plan (2005), have led HE planners in Saudi Arabia to search for solutions to spread HE to learners across the country. These solutions will be achieved partly by opening new universities but the Saudi government is also keen to apply alternative solutions for delivering HE other than opening new universities, which is generally costly and time consuming, including the extension of distance learning.

In any higher education setting, the academic library and its information services are essential support services that instructors and learners need to use. To help achieve academic excellence, Kargbo (2001, p.90) argued that: "The true nature and efficiency of a university is judged by its treatment of its library". However, academic libraries and their role in supporting DL programmes have been largely ignored in Saudi Arabia and ignored by many studies and researchers of DL in the world.

Saudi academic libraries in general seem to be weak in providing information services to all users, according to the literature reviewed in Chapter 2 (Al-Salem 2000; Basager 2001; Alsereihy 2002; Al-Haddad 2003; Abas 2005; Al-Salem 2008). This indicates that they are not fully recognising the importance of the academic library and its information services and resources in supporting users, including DL stakeholders, in their universities. This might have a negative effect on the quality of current DL programmes in these universities.

This research attempts to add value to the running of distance learning programmes in Saudi Arabia and to help new universities and new DL deanships to engage academic libraries and their information services in the whole process. In reality, academic library services are an important facet of any HE setting, as mentioned above, and therefore, the success of HE programmes including DL cannot be guaranteed without engaging academic libraries and their information services in such provision. However, in the Saudi HE environment, challenges and lack of information about many aspects of this research topic are evident:

- Lack of awareness of current good practice in providing information services including electronic information services to support distance learning;
- Lack of understanding of the role, the use and the importance of academic libraries in distance learning;
- Uncertainty about the quality of information services provided in Saudi academic libraries especially for distance learning;
- Unclear picture of the availability of standards, guidelines, policies and regulations regarding the provision of information services for distance learning programmes in Saudi HE;
- Lack of local research into the role of the academic libraries in distance learning.

Hence, this research is the first comprehensive study to be carried out in Saudi Arabia focusing on the role of academic libraries in supporting distance learning programmes. As Saudi Arabia is planning to extend distance learning programme provision, it is very important therefore to raise awareness of the importance of providing appropriate information services for this mode of education.

1.4   Aims and Objectives of the Study

1.4.1 Aims

This study aims to investigate the current situation regarding the role of academic libraries in supporting distance learning programmes in Saudi Arabia higher education. It also aims to:

1. Understand the distance learning stakeholders' perceptions of academic libraries and in particular their role in supporting distance learning. This will identify current strengths and weaknesses and help identify effective strategies for development.

2. Understand current provision in terms of services, roles, staffing and technical infrastructure.

3. Provide suggestions for practical solutions to the provision of library and information services to distance learning programmes in Saudi Arabia.

1.4.2 Objectives

The aims of this study will be achieved through the following objectives:

1. To investigate the current role of academic libraries in supporting distance learning programmes in Saudi Arabia higher education.

2. To identify distance learning stakeholders' needs and attitudes with regard to academic libraries.

3. To understand the views of academic library directors, as well as other participants, on the role of academic libraries in supporting distance learning.

4. To understand ICT directors' views concerning the role of ICT centres in facilitating distance learning in collaboration with academic libraries.

5. To provide practical solutions that can be applied to offer distance learning in Saudi Arabia with the necessary library and information services and resources support. This includes designing information service models/solutions that can contribute to, improve and promote teaching, learning and research activities for distance learning stakeholders and provide practical solutions to overcome the barriers and obstacles facing academic libraries in Saudi Arabia that prevent them from supporting distance learning programmes.

1.5 Research Questions

Several questions have been formulated for the current research:

1. What is the current condition of and work environment in academic libraries in Saudi Arabia?

2. Why do distance learning stakeholders acquire information and what type of information resources do they prefer?

3. Do current distance learning stakeholders use academic libraries to meet their information needs?

4. Are distance learning stakeholders required to use academic libraries?

5. Do distance learning stakeholders have access to useful information resources?

6. What problems and barriers affect distance learning stakeholders in using academic libraries?

7. Do information services librarians in academic libraries receive satisfactory training to deal with the needs of distance learning stakeholders?

8. Are there any barriers (technical, in terms of attitudes, knowledge etc.) that prevent academic libraries from servicing distance learning programmes in Saudi universities?

9. Are there any initiatives that could enhance academic libraries' servicing of distance learning programmes in Saudi universities?

10. Do distance learning stakeholders receive satisfactory training related to using academic libraries?

11. What are the perceptions of distance learning stakeholders and administrators regarding the role of academic libraries in supporting distance learning in Saudi universities?

12. Is there a strategy that can help distance learning planners, as well as academic libraries in Saudi higher education, to provide qualified information services to all distance learning stakeholders and help improve the current information services?

1.6 Significance of the Study

A review of related literature found that there has been no single and comprehensive study previously conducted in Saudi Arabia regarding the role of the academic library in supporting distance learning programmes; thus, until now, there is no real understanding of the role of the academic library in supporting this kind of education. It is envisaged, therefore, that this study and its outcomes will help Saudi public universities to respond successfully to the Government initiative to improve and spread distance learning programmes all over the

country. Several significant outcomes can therefore be linked to this work and can be achieved from conducting this study; these are as follows:

- This study aims to fill the gap in the studies related to this topic and the findings could be useful for improving the current distance learning system;

- According to the researcher's best knowledge, this is the first study to be undertaken on this subject in Saudi Arabia and may provide standards, guidelines and recommendations that can be used to promote and enhance the provision of information services for teaching and learning activities at distance;

- The outcomes of this research will be of benefit to and offer insight for all Saudi public universities and for other countries, particularly Gulf and Arab countries;

- The outcomes of this study are intended to provide solutions for ongoing and future distance learning programmes regarding information services;

- This study and its results, as stated by the e-learning and distance learning centre manager at the Ministry of Higher Education, should help in developing and improving the existing distance learning programmes and help the current and future initiatives;

- The newly announced universities in Saudi Arabia and their distance learning programmes will be able to benefit from this study as it may enable them and guide them to provide information services to their distance learning stakeholders;

- This study is important for the Saudi higher education system in general, the administration of academic libraries, and professionals in allowing them better to understand the current role of academic libraries and their information services for learners, especially distance learning stakeholders, making them equal to those who study on site;

- It is also of importance to the Ministry of Higher Education (MHE) in Saudi Arabia as the results of this research will highlight the barriers and obstacles faced by academic libraries which hinder distance learning stakeholders from making best use of the information resources and services currently available in academic libraries;

- The answers to the questions posed in this research can assist the university authorities in their strategic planning regarding teaching, learning and research for off campus studies; they should improve the quality of teaching, learning and research;

- The answers obtained in this study will assist academic library professionals better to understand distance learning stakeholders' needs and problems concerning such services in order to address their demands;

- The study's outcomes will help the academic community to become aware of the importance of information services and their use for their teaching, learning, and for research;

- The findings of this study will propose conceptual models/solutions of information services for distance learning programmes in Saudi Arabia and may be applicable elsewhere where the cultural aspects are similar, i.e. in GCC and other Arab countries.

1.7 Outline of the Chapters

The thesis is structured as follows:

Chapter 1: This chapter consists of the introduction to the study, together with its aims and objectives.

Chapter 2: This chapter provides an overview of Saudi Arabia (SA) as well as analyses of Saudi documents and research/studies related to the research topic. For instance, literature concerning distance learning in Saudi Arabia and the role of its academic libraries in supporting distance learning is included.

Chapter 3: This chapter is a literature review focusing on the following topics:

- Overview of distance learning, including the history, foundations, its technologies, and more. This introduction is very important in order to place the study in context.

- Literature identifying the role of academic libraries and information services in general in supporting distance learning programmes.

- Issues related to existing standards and guidelines about the provision of library and information services in support of distance learning.

- Distance learning and e-learning models and their relation with the information services support.

Chapter 4: This chapter discusses the research methodology. It addresses the procedures of the research and includes information on where participants were recruited from and how they were recruited.

Chapter 5: This chapter provides an analysis of the qualitative data from the semi-structured interviews that were undertaken.

Chapter 6: This chapter provides an analysis of the questionnaire survey carried out with distance learning stakeholders, mainly instructors and learners.

Chapter 7: This chapter provides an overall discussion of all the research results in parallel with the literature review.

Chapter 8: This chapter summarises and concludes the research findings and presents recommendations, limitations and suggestions for future work.

Chapter Two
Research Context and Background

2.1 Introduction

This chapter provides the necessary background information related to the current study. Primary information, used together with other information included in other chapters in this study, are useful in visualising the whole picture of this research. Hence, information in terms of a general overview of Saudi Arabia, Saudi higher education, Saudi distance learning, Saudi ICT, and Saudi academic libraries is included in this chapter. Some documents related to this study are also analysed.

2.2 Background of Saudi Arabia

The Kingdom of Saudi Arabia is located within the Arabian Peninsula. It was reformed in the latter period of the nineteenth century as a modern country. Saudi Arabia alone occupies approximately 2,250,000 square kilometres (868,730 square miles) and is bordered on the north by Jordan, Iraq and Kuwait; on the east by the Gulf, the Kingdom of Bahrain, Qatar and the United Arab Emirates; on the south by the Sultanate of Oman and Yemen; and on the west by the Red Sea. Riyadh is the capital city which is located in the central area of the kingdom, called the Najd region, as illustrated in Figure 2.1.

Figure 2.1: The Kingdom of Saudi Arabia (CountryReports 2009)

The Saudi population has grown dramatically and, according to the census of 2004, the total is 22673538. This can be divided into two main groups: Saudi citizens (16529302) and non-

Saudi citizens, estimated to be 6144236 in total (MoEP: Central Department of Statistics and Information 2009). However, the last estimation, as reported by Reuters, showed that the total Saudi population, according to official sources, is now over 25 million, 18 million of whom are Saudis (Reuters India 2009). Arabic is the first language in the country but English is widely used among businesses and at some academic levels. However, the latest official census carried out in 2010 indicts that the population of Saudi Arabia is 27,136,977 in total. 18,707,576 of them are Saudis and 8,429,401 are non-Saudi (MoEP: Central Department of Statistics and Information 2010).

Economically, Saudi Arabia has one of the largest oil reserves in the world; these count for more than 20% of the world's reserves. The policy of the Kingdom is to develop a viable economy based on refined petroleum products. In addition, Saudi Arabia ranks as the largest exporter of petroleum and thus plays a leading role in OPEC. In fact, in January 2008, oil accounted for almost 80% of budget revenues, 45% of GDP and 90% of export earnings (CIA 2009). In addition, Saudi Arabia, in an attempt to join the international economy, gained the right to join the WTO in December 2005, and has established six cities in the Kingdom to enhance economic development. The last few years of high oil prices have given Saudi Arabia a strong advantage regarding increases in its wealth reserves which are helping the government to deal with the current impact of the global financial crisis (CIA 2009).

2.3 Higher Education and Academic Libraries

In this section, information about higher education in Saudi Arabia is provided as a knowledge base for understanding this research since the HE system is a central factor. In addition, information about distance learning and academic libraries and their services in Saudi public universities is also introduced in this chapter.

2.3.1 Higher Education in Saudi Arabia

Formal general education in Saudi Arabia began in the 1930s (MOE 2004). The aims of general education in Saudi Arabia, as mentioned in the Ministry's policy, are:

1. To provide opportunities for education to every citizen of learning age, according to his/her abilities and inclinations, and to facilitate these opportunities by providing the appropriate infrastructure and services.

2. To design and execute projects that cater for the requirements of the Ministry, such as the construction of educational buildings and the renovation of existing educational sites, by investing capital sums in the private sector for the implementation of such projects.

3. To improve the curriculum and constantly upgrade the general education system so that it is in accordance with contemporary societal and industry requirements (MOE 2004).

The higher education system in Saudi Arabia began formally in 1957 when King Saud University was founded (A Country Study: Saudi Arabia 2005); this was followed by the creation of several other universities and colleges. To administer these universities and colleges, and to enhance the quality of HE in SA and its institutes, the MHE was established in 1975. Its role is to control all HE institutes (both public and private) and it may permit or refuse the creation of any private university in the Kingdom. Higher education planning is described in the Saudi Arabia Education Policy as follows:

1. Planning for HE begins after high school or its equivalent level;
2. HE in SA (public and private) is run under the supervision of the Highest Congress for Education;
3. The MHE can establish universities and colleges according to the country's needs and its resources;
4. It can implement the HE Congress and set its terms of reference, responsibilities, mode of operation, legal acts, rules, and its methods of work;
5. The mission of HE is to work as a coordinator between colleges in such way that the country's needs can be achieved in all its aspects;
6. It can create post-graduate programmes in subjects as they are needed and according to the availability of resources;
7. Universities have the right to offer diplomas at all levels for their graduates;
8. Saudi universities should cooperate with all universities in the Islamic world in such a way to achieve the goals of Islamic nations in building a pure Islamic civilisation;
9. Saudi universities should cooperate with all world universities in running scientific research, and in furthering invention and discovery by offering appropriate encouragement and research exchange;
10. Libraries and laboratories must be cared for to provide the means of research in HE (Saudi Education Policy).

Al-Kazem (2006) pointed out that the goals of the MHE in Saudi Arabia have not yet been formally identified; however, they can be extracted as follows:

- To improve the HE system and make it available to Saudi citizens,
- To ensure the quality of HE,
- To spread HE in the country by using a number of methods, such as establishing new universities and colleges, and by applying new ways to deliver HE, such as via DL,
- To authorise the creation of new universities and their programmes,

- To maintain educational missions in 32 countries and support Saudi students who study for HE degrees in foreign countries (State University: Saudi Arabia - HE 2007 and Saudi Arabian Cultural Mission 2006),

- To control all HE institutes (both public and private) by permitting or refusing entry to any private university in the Kingdom.

Today, public universities in SA, as they are run and controlled by the MHE, are living in a kind of "golden age" as they have received generous attention from those occupying the highest positions in the government. Currently, the new Saudi government, under the ruling of King Abdullah, is continuing the efforts the King's brother, Fahd, to increase the number of schools, institutes, colleges and universities, as well as adapting new educational technologies and models such as DL and e-learning all over the country; these accept both male and female students who desire to continue their HE. This can be seen very clearly in the budget for the financial year 2009 when education (general and HE), including manpower development, was allocated 122.1 billion Saudi Riyals (US $32.6 billion) out of SR 475 (US $126.7) billions. Noticeably, the overall government public budget has increased by 16% compared to that in 2008 (Hanware 2008). The budget allocated for education can be broken down as follows:

- Continued implementation of the King Abdullah Project for Education Development amounting to SR (9) billion;

- The creation of the recently approved Education Development Holding Company;

- New projects, to include the building of 1500 new schools (in addition to the 3240 schools currently under construction);

- Maintaining the 2000 existing school buildings;

- Construction of the new university campus for women (Princess Norah University) in Riyadh;

- Construction of the Medical City for King Saud University;

- Continuing the King Abdullah scholarship programme;

- Implementing the National Plan for Science and Technology amounting to SR 8.0 (US $ 2.1) billion (Mena report 2008).

This amount constitutes an increase of nearly 36% on the level budgeted for 2008. This illustrates the continued spending on education during the last few years as the Samba Financial Group (2006, p.3) stated:

> Capital spending in this sector is budgeted to rise by 17 percent. Spending is spread across all levels of education, with plans being unveiled for the opening of four new universities and the construction of 56 colleges and 2,000 new schools. Funds are also allocated for a number of new technical and vocational training centres.

As a result, universities in SA have grown very quickly and have almost tripled in number in the last seven years. In 1998, there were only eight universities while in early 2007 there were seventeen, according to a speech by the Higher Education Minister, Khaled al-Angari (Abdul Ghafour 2006). As recently as August 2009, the number of Saudi public universities increased in number to 25, as illustrated in Table 2.1, after the announcement of the establishment of four new universities in Dammam, Alkarj, Almajmah and Shagrain (Arabian business.com 2009). Also, private universities, according to the last speech by the Ministry of HE at the opening ceremony of King Abdullah University for Science and Technologies on the 23/09/2009, have increased in number to a total of nine.

Table 2.1: Saudi Public Universities

N	University	N	University	N	University
1	Imam Mohammed Bin Saud Islamic University	2	King Abdul-Aziz University	3	King Saud University
4	King Fahad University of Petroleum and Minerals	5	The Islamic University	6	King Faisal University
7	Um Al-Qura University	8	King Khalid University	9	Qassim University
10	Taif University	11	Tabouk University	12	Jazan University
13	Al-Jouf University	14	Girls University-Riyadh	15	Tabuk University
16	Al-Baha University	17	Najran University	18	Hail University
19	King Saud Bin Abdulaziz University for Medical Sciences	20	King Abdullah University for Science and Technologies	21	Alhudood Alshamaliyah Colleges
22	Dammam	23	Almajmah	24	Shaqra
25	Alkarj				

These universities are run and controlled by the Saudi government (MHE); they are part of the target of the Saudi 8th DP and they are encouraged by this plan to offer DL and e-learning.

In short, the Saudi government hopes to continue its efforts to invest in and to improve the quality of its HE. It also intends to invest more to apply new methods of DL, such as e-learning, in all universities and will increase the number of private universities in the Kingdom. The government will also allow foreign universities to provide HE in line with WTO agreements reached in 2005. Thus, one of the roles of the MHE is to ensure that the education provided by the government and private universities, including DL, is of a high quality by providing them with the support they need in terms of academic and non-academic support. For instance, the MHE has established a DL and e-learning centre, the goal of which is to improve the current DL system in the country; this current study could be an important part of this goal.

2.3.2 Profile of Selected Public Universities

2.3.2.1 Imam Muhammad Bin Saud Islamic University in Riyadh (IMBSIU)

IMBSIU was established officially in 1974. The Faculty of Shari'ah (theology) was established earlier in 1953 and, as it was the first college, it was the core of the university later on. In 1965, the DL mode of study was established in the form of correspondence courses; this was later established in the Faculty of the Arabic Language in 1974. This university has branches in the USA, Japan, Indonesia, Mauritania, Djibouti and the UAE and offers programmes mainly in Islamic and Arabic studies. As of 2009, the university offers studies in the following fields:

- Sharia College (theology)
- Fundamentals of Religion College
- Faculty of Da'wa and Islamic Media College
- Arabic Language College
- Computer and Information College
- Social Sciences College
- College of Medicine
- Language and Translation College
- Science College
- Economics and Administrative Sciences College
- College of Engineering (IMBSIU 2009a).

Recently, the IMBSIU has started to develop its traditional DL to be more flexible and more accessible for the many who need it. As a result, it established the Deanship of DL for the first time in 2007 to manage and administer DL in the university. The new deanship seeks to achieve two goals:

1. The development of methods for the application of DL in the country through the Internet;

2. The development of methods and tools for e-learning system for the purpose of upgrading the regular DL system as well as the traditional, full-time system (IMBSIU 2009b).

2.3.2.2 King Abdul-Aziz University (KAU)

King Abdul-Aziz University in Jeddah (Western Province) was founded privately in 1967 by a group of Saudi businessmen who understood the importance of higher education in national development. Since then, the university has developed rapidly. In 1971, the founders

petitioned the government to assume responsibility for its operation. Since then it has expanded considerably and is now the largest of the Kingdom's universities, with over 42,000 students enrolled in undergraduate and graduate programmes in various fields of study. It is also considered as the second university in SA to provide DL to make it easy for all students to enter higher education. In 1972, distance learning started and now two faculties offer this kind of education: the Art and Humanities faculty, and the faculty of Economics and Administration. To illustrate the interest of the university in spreading HE to more learners, it established the Deanship of DL in 2005 to cope with developments in learning and teaching technology by distance. The DL deanship's role is to support the DL processes and its stakeholders by:

1- Applying various pedagogical methods, multimedia and interactive material.
2- Providing learning management systems (LMS), satellite channels and the Internet.
3- Providing interactive facilities like virtual classrooms and e-forums.
4- Providing highly qualified human resources in the development of learning content.
5- Creating an administrative environment and providing financial facilities.
6- Providing an academic assistant (tutor) to aid faculty.
7- Providing training programmes relating to education for faculty, students and administrators.
8- Implementing quality assurance as per worldwide standards (The Deanship of DL at KAU 2009).

2.3.3 Current Issues in Saudi Higher Education

One important element in the education cycle is to understand the processes of learning and teaching and to understand clearly teachers' and learners' needs. The Kingdom of SA is among those countries that are interested in improving their HE system in order to make it available to most of their citizens. However, the Saudi government is facing serious problems regarding its HE system; among these problems are the poor quality of output from its universities and the shortage of places available to high school graduates. For instance, Saudi public universities were placed at the end of the list in terms of quality. Khaleej Times Online (2006) stated that: "In the report entitled 'Web Metrics Ranking of World Universities', King Fahad University for Petroleum and Minerals, King Abdul-Aziz University and King Saud University were placed 1,681st, 2,785th and 2,910th respectively amongst the rankings of 3,000 universities from all over the world". This ranking has raised the issue of the quality of Saudi public universities and the role of the Government in solving this issue.

Another problem is related to the fact that many people in SA are seeking to continue their higher education on campus as full-time students. Mosa (2000) stated that: "Saudi HE is under mounting pressure to admit more students than it is really capable of handling to accommodate the ever-increasing number of high school graduates" (Mosa 2000). Almunajjed (1997), cited in Baki (2004), also asserted that the Saudi government is working

towards making dramatic changes in terms of its economy and in increasing the revenue of Saudi citizens. As he notes: "The government is working on developing a Saudi workforce by encouraging Saudi nationals to participate in all sectors of the economy"; this will put more pressure on Saudi universities. Therefore, Baki (2004) argued that the responsibility of the Saudi HE system is to work to replace foreign workers with well-qualified graduates of both genders. So, in order for the Saudi Government's plans to succeed, as El-Rashidi (2007) mentioned, opening new universities in SA is a part of an ambitious project by the Saudi government to improve the HE programmes provided to its citizens in order to compete in the market. Thus, applying well-planned and properly organised DL programmes may offer a solution that could produce quality learners with less effort when compared with traditional education. El-Rashidi (2007) mentioned that, for example, according to the Saudi Arabian MHE, Khalid M. Al-Anqary, the Saudi government's plan is to open eleven new universities in the next three years. These universities will be established in different areas of SA and will concentrate on teaching applied sciences, as well as providing education and training in skills that the current market requires. These plans have recently been achieved and the Saudi public universities now total 25.

In addition, the Saudi government is also keen to apply other solutions for delivering HE other than opening new universities, a solution which is generally costly and time consuming. In practical terms, the only alternative solution which has been tested over the years in many parts in the world, and also in the Saudi HE system, is to employ DL. This system is called 'Intisab' in SA and has been used for more than 40 years. Thus, DL, with its new technologies such as the provision of e-learning through the Internet, might help Saudi HE planners to deliver HE to all Saudi citizens at a moderate cost and over a reasonable time span, thus becoming the second solution in spreading HE across the country, as mentioned in the 8th Development Plan.

Nonetheless, in any higher education setting, whether using conventional/face to face or distance learning, libraries and information services are essential support services that teachers and learners need to use. Yet academic libraries have been ignored by many studies and researchers in DL world-wide. A review of the literature on the subject of DL shows that few mention the use of and access to academic libraries and information resources (Beagle 2000, p. 367; cited in Roccos 2001, p.1). Saudi Arabia is no exception as the researcher found no study in the literature covering any topic regarding DL and academic libraries in Saudi Arabia. However, Cain and Lockee (2002, p.6) asserted that successful DL is built on the

support offered by the library, while Erazo and Derlin (cited in Cain and Lockee 2002, p.6) noted that the library support services which might be provided to distance learners to meet their needs include "digitising libraries, offering several options of electronic library support, teaching and providing online searching and tutorials, providing CD ROM databases, and the use of inter-library loans". However, the academic libraries of the two universities currently providing DL (King Abdul-Aziz University (KAU) in Jeddah and Imam Mohammad Bin Saud Islamic University (IMBSIU) in Riyadh) are presently not defining their role regarding offering special information services to DL. This might have a negative effect on the quality of the current DL outputs in these universities; it might also contribute to the current weaknesses in the information services provided to off-campus learners.

To summarise, in order to spread higher education across the country, the Saudi government is planning to establish new universities that can provide both traditional education and DL while asking existing universities to adopt DL side by side with traditional education. The MHE considers DL as an important method of spreading higher education all over the country, exemplified its creation of a DL and e-learning centre a few years ago. This has the potential to improve the current DL offered by some Saudi public universities and to implement the most advanced technologies in supporting this system.

2.3.4 Distance Learning in Saudi Higher Education

An external study (Intisab system), was first began in 1961 at King Saud university (Alharbi 2002, p.17). later on, this new HE system, offered by IMBSIU in 1965 as mentioned above; this was called also External Study (Intisab), a kind of DL. At first, it was limited to one subject, Sharia (theology), but then spread to encompass more subject areas. Under this system, distance learners were not required to attend any fixed-site classes during a semester; they were only required to attend their final exams on site.

Following the lead of IMBSIU, King Saud University (KSU) also started to offer this kind of education in 1966, using a similar administration system as in IMBSIU, although this DL project was at first developed only for female students because there were no special colleges for women at this time. Later, KSU stopped offering this provision after the university set up a special college for women. Subsequently, King Abdul-Aziz University (KAU), in the Western province, began to provide DL in 1972, the third university in the Kingdom to do so. Several subjects were taught in different colleges and, as with the previous systems, students were not required to attend regular classes but were required to sit their final exams on site.

The DL teaching method used in all of these universities was similar and is still the same today with only slight changes. Distance learners usually apply for university and then start their studies by presenting themselves at the beginning of each semester to decide which modules they will take and to obtain a syllabus for each course. After this, distance learners usually "disappear" for around three months, having no formal contact with the university or with the instructor until the exam period. They usually therefore have no formal academic or non-academic support to help them to achieve success in the modules they have chosen.

The main resources for subjects provided at all the Saudi universities using this system are usually handouts and textbooks which can be obtained from bookshops (Al-Shehri 2003, pp.37-39) and so, during the semester, learners are usually given these resources to read; thus, no private study might be set during the semester, except for revision for the final exams. This kind of education can be best described as a self-study system since there is no defined contact between instructors and students except at exam time. As a result of this, academic libraries at these universities might have no plans, guidelines or policies to support and serve external students; as a consequence, distance learners might be ignored by the academic libraries and their services.

Several studies (Alharbi 2002; Al-Abdulali 2003; Al-Shehri 2003, p.39; Altowjry 2005; Ibrahim *et al.* 2007; Hakeem 2007; Al-Rabigy 2007) have asserted that a number of problems are involved in this kind of education which may negatively affect the quality of education provided, including:

- Lack of interaction between faculty and learners during the semester which may have a negative effect on outcomes;
- While this kind of education was introduced to overcome some of the problems facing Saudi universities, such as the limited number of spaces available to high school graduates, DL has been unable to overcome this problem and its outputs are facing problems in the labour market;
- Subjects offered in this kind of education are limited to only a small number of theoretical studies;
- The poor quality of learners graduating through this system;
- Distance learners seem largely ignored and are not provided with the kinds of support they may need during their studies;
- The role of the information provision and academic library is unclear in this kind of education.

Educational planners are now starting to consider spreading DL all over the country for both males and females who have no chance or time to attend regular classes. The Saudi MHE has several reasons for speeding up its thinking concerning spreading DL. These reasons are as follows:

- The 8th Saudi Development Plan (DP) (2005-2009) states, under the title of Defined Objectives in article No. 3/6/2/20, the following:

  "Create a plan and timetable for spreading distance education programmes, part-time study, evening classes, external study, and continuing education programmes in all Saudi Universities"(8th DP 2005-2009);

- Universities in SA are experiencing problems regarding accepting more students: "At present, the Kingdom can serve only 75,000 of its 200,000 high school graduates". Thus, only limited places are available and this creates a social problem since most people want to attend university (Pantaleo 2005);

- There are only twenty five universities in SA and they cannot accommodate all eligible high school graduates (male and female);

- There is a shortage of faculty;

- Most of the twenty five universities are new (five universities were created by the government in 2006 and 2007, and four in 2009); they do not have the capacity to accept many students;

- The complexities of social life in SA, and the quantity of people who want to work and study at the same time, require Saudi universities to improve and apply a DL system as soon as possible.

As a result, the MHE has established an e-learning and DL centre to take the initiative in developing DL in Saudi higher education.

2.3.4.1 The National Centre for E-learning and DL (NCEL)

The MHE, as part of its initiative to improve and develop Saudi HE and its mechanisms, including DL, created the NCEL centre in 2004. This is considered to be an important outcome of the National Plan for Communication and Information Technology and was aimed at localising e-learning applications, offering all the support that is available. This, it was hoped, would raise awareness of the importance of using new educational methods such as DL to achieve the desired results and to ensure high quality outputs. In addition, it was intended to build the necessary coordination with public universities and institutes in order to offer technical and logistical support in the field of DL and e-learning, including supporting

studies and research in this field. It also aimed to distribute DL and e-learning applications among public institutes and universities in the country according to quality standards. In short, its mission is to support educational processes in Saudi HE institutes by utilising IT to improve communication and to fulfil society's demand for HE.

This centre aims to support and offer DL and e-learning in the country in parallel with international standards and hence plans to create the Digital Library (ZAD) to support the educational processes of DL in SA. The overall goals of the centre are as follows:

1. To spread e-learning and DL in the institutes and universities according to quality standards.

2. To contribute to increasing the learning capacity of institutes and universities through the application of e-learning and DL.

3. To spread technical awareness, as well as an awareness of the e-learning and DL culture, as a contribution in establishing an information society.

4. To contribute to evaluating e-learning and DL projects and programmes.

5. To support the studies and research related to e-learning and DL fields.

6. To put in place quality standards for designing, producing and publishing educational digital materials.

7. To offer consultation in the fields of e-learning and DL.

8. To create and distribute educational software to serve educational processes in the public and private sectors.

9. To encourage distinguished projects in the fields of e-learning and DL in the universities (NCEL 2010).

2.3.4.2 Studies of Distance Learning in Saudi Arabia

Several studies have been carried out regarding DL in Saudi HE. Most of the studies, according to this researcher's literature review, indicated that researchers have rarely investigated the role of academic libraries and their information services in supporting DL. However, some of the studies briefly mentioned the importance of information services to support learning by distance. Among these studies, research conducted by Alharbi (2002) investigated the perceptions of both faculty and administrators in applying online courses, as well as incentives and obstacles to the use of web-based courses. He also examined the variables associated with these perceptions in order to decide how these might affect their support for online courses in their institution. Among the study's findings, Alharbi (2002) revealed that faculty staff and administrators were ready to apply online courses; the main obstacles that prevented faculty and administrators from adopting online courses were

increased workload and a lack of technical and administrative support on the part of the university; and that incentives for faculty and administrators were very important in motivating them to adopt online courses. In another study, Al-Abdulali (2003) found that 63% of instructors agreed that DL (correspondence) is a key issue in elevating staff knowledge and helping them to keep their jobs. 57.6% believed that correspondence DL is the only method of offering distance learning in Saudi Arabia, 73% believed that depending on textbooks is one obstacle facing DL, 69.3% said that DL currently lacks interaction between learners and students, 62.9% agreed that applying new technologies can encourage more students to continue their HE, 81.1% were in favour of setting aside part of the university's website to spread DL, and 83% requested that the university should train distance instructors and learners in dealing with the Internet and with computers.

In addition, Altowjry (2005) highlighted that SA needs to capitalise on the advantages of applying and using ICT tools to deliver education. He found that many people in SA do not have equal opportunities in terms of being exposed to education. Furthermore, applying new learning technologies to deliver DL will help learners to have easy access to the Internet and its information resources at any time. The research findings showed that most students and lecturers in SA had the basic computer skills which were needed for conducting DL and which could be very helpful in delivering content and in carrying out assignments. The asynchronous (not occurring at the same time) DL model was felt in this research to be the most effective tool to allow learners and instructors to participate fully in the course at any time and from anywhere. There was a positive relationship between applying the new DL model and decreasing the number of students who dropped out from the regular system. In addition, the findings suggested that the number of Saudi students looking for an education overseas would decrease by applying this DL model. It was also found that using DL in SA would be cost effective by reducing the cost of funding education overseas. Nevertheless, the study pointed out that applying DL requires a high-speed connection in order to achieve its goals and build the necessory interaction. Finally, he concluded by saying that introducing DL in SA should be given top priority by key people at the highest level in the country.

In addition, Ibrahim *et al.* (2007) carried out a study to investigate the institutional elements affecting learners' intentions to withdraw from DL in SA at the Arab Open University (AOU). In their literature review, the researchers concluded that Arab countries, including SA, are far behind in offering and ensuring the provision of good quality distance higher learning programmes. Furthermore, Yamani (2007) investigated e-learning in SA as a tool to

face some of the challenges and problems in Saudi HE in the light of the age of technology. The research findings showed that participants supported the idea of applying e-learning to address the challenges facing Saudi HE; they supported the idea of using the Internet to exchange and share knowledge and information among instructors inside and outside campuses; and they agreed that the Internet should be used to send and receive assignments to reduce instructors' efforts. However, they did not agree with the use of the Internet as a way of opening a dialogue with learners, especially by using chat rooms and Internet forums; they also pointed out that there was a lack of rules and regulations regarding awarding distance learners their certificates from the MHE, which can be seen as the most important obstacle impeding the success of the application of e-learning in SA; they also noted the lack of skills of Saudi instructors in dealing with IT and felt that this hindered the idea of applying e-learning.

Hakeem (2007) investigated the attitudes and perceptions of teachers at Um Al-Qura University regarding the possibility of establishing an open public university. Her findings indicated that there was general agreement regarding the reasons behind establishing an Open University run by the government in the country. However, respondents were uncertain about its cost compared to a traditional institution and also did not agree that this was the right time to establish such a university due to shortages of human resources, intellectual ideas about DL, and financial resources. Finally, participants agreed on the importance of controlling and evaluating tools that could be used to control the outputs.

In short, DL in Saudi Arabia has been studied by several scholars. These studies were in the form of PhD theses, MA theses, or articles in journals. Most of the literature concerning DL was about the system itself and ways to improve it. Rarely did studies mention the role of academic libraries in the whole system. Some of the studies mentioned briefly the role of information in general in conducting DL but many completely ignored academic libraries as a support service apart from tutoring, and for financial and other support. Thus, there is a need to carry out a study that concentrates on the role of academic libraries in supporting DL in order to build up, by combining this study with other previous studies, a full picture of the whole system in general.

2.3.5 Academic Libraries and Information Services in Saudi Arabia

The university library and its services constitute one of the most important facilities in any university and these play a crucial role in improving the quality of education; they also have a

unique role to play in the development of scientific research, which is an important part of any university's provision. The services in academic libraries have changed from being merely a form of storage for knowledge with limited access, to being an important tool for acquiring, organising and serving. Moreover, the academic libraries is encouraged to provide services, not only for direct "customers" of the university, but also to spread its provision to all its remote stakeholders who are located locally, nationally and internationally.

Most academic libraries in Saudi Arabia are now very well equipped with many IT facilities that can help to support the university community with all the information services it needs. In fact, the Saudi government, in all its development plans, mentions the importance of IT and requests Saudi organisations to apply these development plans by implementing such technologies to serve the public (Al-Salem 2000, p.111). Since the beginning of the 1980s, certain academic libraries in Saudi Arabia have been using IT and have been gradually implementing more and more technologies in line with the rapid developments in this sector (Al-Syria *et al.* 2003). These technologies have been implemented through the infrastructures that were available to academic libraries at that time and have been central in providing unique information services to the university community. With the constant development of IT, some Saudi academic libraries have applied new technologies in order to provide the latest advanced information services to their users, while others have used only some of these technologies and have failed to utilise them fully to satisfy the needs of their users. Basager (2001, p.72) mentioned that there are several reasons that prevent academic libraries in SA from fully using IT. Among these reasons are:

- Some academic libraries are still operating library systems which are not fully adapted to the Arabic language. This can affect their functions in serving users;
- There is a lack of national vendors. This problem may be solved, however, with the establishment of new local companies dealing with libraries and their technologies;
- There is a shortage of Saudi professionals in the field of IT.

These reasons and others may have played a substantial role in decreasing the quality of information services provided to users by academic libraries in SA. In addition, according to Al-Qablan (cited in Al-Zahrini 2004, pp. 316-17), there are several obstacles facing certain Saudi academic libraries that may prevent them from building strong IT infrastructures. Among these obstacles are:

- Software and hardware in the information sector are expensive which may prevent some academic libraries from applying full library automation;

- There is a shortage of and weaknesses in technical support in the IT sector in some universities;

- Some librarians lack experience in IT.

Recently, some of these obstacles have been overcome to some extent, especially following the establishment of many private, local IT companies with businesses based in SA. These companies have started to provide Saudi libraries, including academic libraries, with a wide range of technologies related to information and have dedicated most of their efforts toward providing software and hardware solutions for libraries. Some of these companies, such as the Arabian Advanced System Company and the Knowledge Technology Company, have played an important part in the importation and the Arabisation of IT applications for use in SA and in other Arab countries (Alfrih 2007). For instance, the Arabian Advanced System Company specialises in the manufacture of electronic information services in the region and has implemented pilot projects developed in the Arab world, such as Arab information on CD-ROM, the creation of CD-ROM networks, and a number of advanced information systems, for a number of academic and scientific bodies (Librarian Net dot com 2005).

Because certain academic libraries in the 1980s worked closely with foreign vendors in automating and applying IT in their libraries, they also established, in the mid 1990s, a new relationship with local companies to provide comprehensive ready-made software and hardware solutions for libraries, such as the Horizon and Unicorn companies for library automation. Also, IT companies in SA have generally adapted some software (through translation with modifications) from Europe and from North America and have introduced these for use in Arabic libraries. Such developments in IT and in the companies that supply these technologies, especially in the Arab world, have played an important part in the widespread adoption of information technologies in academic libraries in SA. As a result, new universities in SA now find it easier to apply IT in their libraries but this is still time-consuming, costly, needs more in-house support, and requires librarians who can deal with these technologies; this is not an easy task to achieve in the immediate future. However, to overcome these obstacles and to help the newly announced universities in SA to begin their teaching programmes right away, academic libraries in these new universities have to be set up. However, time, staff, budgets, buildings, resources, IT infrastructures and so on, which are very important factors in running new academic libraries, can often be very challenging and even disappointing at this stage (Alfrih 2007).

2.3.5.1 Saudi Studies on Academic Libraries

Academic libraries play an important role in supporting learning and research in universities and many studies have investigated this role. Introducing some of these studies here is important to provide an overview of the real condition of academic libraries in Saudi HE. For instance, Al-Okla (1998) carried out a study in which he asserted that there was strong evidence that there were very serious problems with the administration of the academic libraries at King Saud University. These problems had hindered the process of developing information services in the academic libraries. In addition, Al-Salem (2000) concluded that the role of academic libraries in SA in providing quality information services was weak; new technologies were not being adopted and implemented as they should be. There was a lack of coordination and cooperation among Saudi academic libraries regarding support for users; there was a shortage of information resources in academic libraries; and finally, there were no information literacy programmes, resulting in a lack of user awareness regarding the availability of bibliographic resources.

Moreover, Basager (2001) found out that IT systems, network infrastructures and the lack of availability of qualified workers were responsible for limiting services or for the failure to provide effective information services. The only means for faculty and users to have access to the Internet was through departmental provision; no access was available in the libraries. A lack of IT knowledge and inadequate skills in the English language were the most important problems facing faculty and students in using e-services. Further findings showed that a lack of funding and a lack of qualified staff, programmers and connections to the computer network were some of the main reasons why efficient e-services were not provided to users.

Another study carried out by Alsereihy (2002) showed that the reference collection in the academic library (in terms of quantity and quality) was less than what was expected and needed to be updated. The reference department lacked a clear policy that would help to run the department. Also, Al-Haddad (2003), in his PhD thesis, discovered, among his findings, that academic library administrations were not concerned about librarians' continuing education and training; top managers in academic libraries were less concerned about improving information services; there was no accurate information about users' needs; policies and standards were undeveloped; and there was ignorance regarding the recruitment of qualified librarians.

Abas (2005) also conducted a study to measure the quality of information services provided in King Abdulaziz University libraries in Jeddah, SA. Results showed that information services provided by the academic library were rated very low which meant, in turn, that productivity was very low. According to this measurement, users evaluated the library information services negatively as these services were very much below their expectations. Finally, Al-Rabigy (2007), in her PhD research, showed that academic libraries were ready to join a cooperative entity to offer digital reference services for their users; the research suggested using foreign projects and experience in building this cooperation. The researcher concluded that there was a strong connection between applications and programmes of DL and the availability of digital reference services. Saudi public universities that have recently adopted the DL concept will benefit most from applying this project as distance learners are expected to get from their institute library the same services provided for on campus users.

Recently, Al-Salem (2008) carried out case study research on marketing information services among academic libraries in Saudi HE. He decided firstly that information services in Saudi academic libraries are still failing to satisfy users' needs because they still do not concentrate fully on helping and supporting users. He carried out this study in IMBSIU's academic library and reached the following conclusions:

1. A strong marketing plan is needed to market information services in Saudi academic libraries;
2. Marketing would help in developing information services;
3. The present marketing of information services in the academic libraries at IMBSIU is weak.

He offered several recommendations to improve information services by, firstly, implementing marketing strategies and by creating an independent department to carry out the necessary plans to market information services. In addition, he believed that academic library managers should carry out the necessary initiatives to implement marketing.

Bamfleah (2008) carried out research into building cooperative digital information services among Saudi academic libraries. She noted the importance of building such cooperative projects to save time and money and asserted that cooperative digital information services could support users including DL stakeholders in Saudi HE as such support is currently lacking. She explained the importance of creating a cooperative information reference service among all Saudi academic libraries which, she asserted, would improve learning, teaching and

research. She offered several recommendations, some of which related to the building cooperative information services, not only among Saudi academic libraries, but also among Arab universities. She also outlined the importance of creating policies, standards and guidelines for providing and offering information services.

Furthermore, Callo (2009) studied the role of the Internet in building effective cooperation among GCC academic libraries. She noted that the academic library is the most important type of library according to scholars such as Shemberg (2000) and suggested that cooperation is the ideal model to provide reliable information services. Her study offered the following results:

1. There are no union catalogues among all GCC academic libraries websites;
2. GCC academic libraries lack a special information network; this might hinder any effort to build cooperative projects;
3. Academic libraries in the GCC seems to like being independent from any cooperative projects;
4. Information services offered through academic library websites are weak.

The study made several recommendations that could be used to help in building the necessary cooperation between GCC academic libraries through the Internet which could reduce both cost and time. She suggested building union catalogues to facilitate cooperation; moreover, interlibrary loan, digital theses, online information services, and online databases should be the focus of all GCC academic libraries. Finally, academic libraries should develop their own websites and participate in the Arabic union catalogue and WorldCat; each academic library should include links to the websites of other academic libraries on its homepage.

Studies have shown a lack of recognition of the importance of academic library services for those who study away from the campus in Saudi higher education. In addtion, there was no clear picture of the current and the future role of academic libraries and their services in supporting DL.

2.4 ICT Infrastructure and Services

Distance learning around the globe relies increasingly on ICT but, according to studies, reports and people's reactions on Internet forums, developments in the ICT infrastructure of SA may not be progressing as rapidly as the Saudi people and organisations would like. Thus, although the ICT infrastructure in the Kingdom is progressing, more emphasis needs to be

directed towards accessing remote areas if DL is to succeed. The current Saudi government has made development plans, especially in the last DP (the 8th in 2005), and in other ICT plans such as the National ICT plan (2005), to develop this infrastructure in order to bridge the gap between the nation and other developing countries. Such development (and to keep track of advances in IT) is vital since the Internet in SA should be used as the backbone of its ICT development, especially in education. Harry and Perraton (1999), cited in Jayaratne and *et al*. (2007, p.717), asserted that: "the Internet is the most significant communication technology used in distance education in the recent past."

According to the Commission for Communication and Technology, the Internet in SA was implemented officially in 1997. This was offered under the control of King Abdul-Aziz City for Science and Technology (KACST) in association with the Saudi Telecommunication Corporation (STC). Official statistics, as illustrated in Figure 2.2, show the rapid growth of the Internet since 2001. However, this growth is less than expected and still covers only 38% of the Saudi population: "Internet penetration increased to 38% of the population by the end of H1 2009" (MCIT 2009).
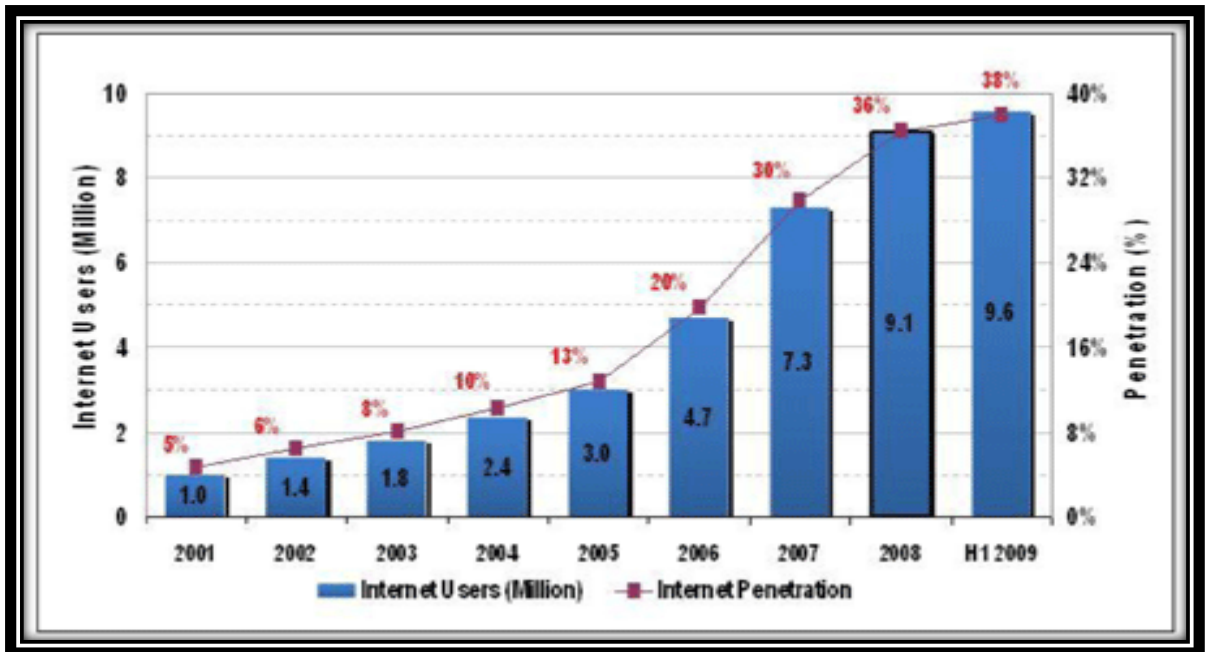
Figure 2.2: The Rapid Growth of the Internet Since 2001(MCIT 2009)

This compares with a percentage of 79.8% (48,755,000 Internet users as of June/09) of the population for the UK, as illustrated in Table 2.2 (internetworldstats.com). Table 2.3 illustrates a comparison between Saudi Arabia's usage of the Internet and the usage of other Middle Eastern countries.

Table 2.2: Internet Usage in the UK (Source: www.internetworldstats.com)

Year	Users	Population	% Pop.
2000	15,400,000	58,789,194	26.2 %
2005	35,807,929	59,889,407	59.8 %
2007	38,512,837	60,363,602	63.8 %
2009	48,755,000	61,113,205	79.8 %

Table 2.3: Middle East Internet Usage (Source: www.internetworldstats.com)

Middle EAST	Population (2009 Est.)	Usage, in Dec/2000	Internet Usage, Latest Data	% Population (Penetration)	User Growth (2000-2009)	(%) of Table
Bahrain	728,709	40,000	402,900	55.3 %	907.3 %	0.7 %
Iran	66,429,284	250,000	32,200,000	48.5 %	12,780.0 %	55.2 %
Iraq	28,945,569	12,500	300,000	1.0 %	2,300.0 %	0.5 %
Israel	7,233,701	1,270,000	5,263,146	72.8 %	314.4 %	9.0 %
Jordan	6,269,285	127,300	1,595,200	25.4 %	1,153.1 %	2.7 %
Kuwait	2,692,526	150,000	1.000,000	37.1 %	566.7 %	1.7 %
Lebanon	4,017,095	300,000	945,000	23.5 %	215.0 %	1.6 %
Oman	3,418,085	90,000	557,000	16.3 %	518.9 %	1.0 %
Palestine (West Bk.)	2,461,267	35,000	355,500	14.4 %	915.7 %	0.6 %
Qatar	833,285	30,000	436,000	52.3 %	1,353.3 %	0.7 %
Saudi Arabia	28,686,633	200,000	7,761,800	27.1 %	3,780.9 %	13.3 %
Syria	21,762,978	30,000	3,565,000	16.4 %	11,783.3 %	6.1 %
United Arab Emirates	4,798,491	735,000	3,558,000	74.1 %	384.1 %	6.1 %
Yemen	22,858,238	15,000	370,000	1.6 %	2,366.7 %	0.6 %
TOTAL Middle East	202,687,005	3,284,800	58,309,546	28.8 %	1,675.1 %	100.0 %

In addition, broadband subscription in SA, especially among households, is still lower than expected; this is due to the Internet being weak, slow and expensive. According to official statistics, shown in Figure 2.3, "The number of broadband subscriptions has grown to over 1.8 million by the end of H1 2009, a 36% increase from Q4 2008. Broadband penetration rate stood at around 7% of the population by the end of H1 2009, while broadband household penetration stood at around 29% (assuming that 70% of broadband connections are household ones). DSLs represent around 75% of the total broadband subscriptions, while fixed wireless and mobile broadband represent around 24%" (MCIT 2009).
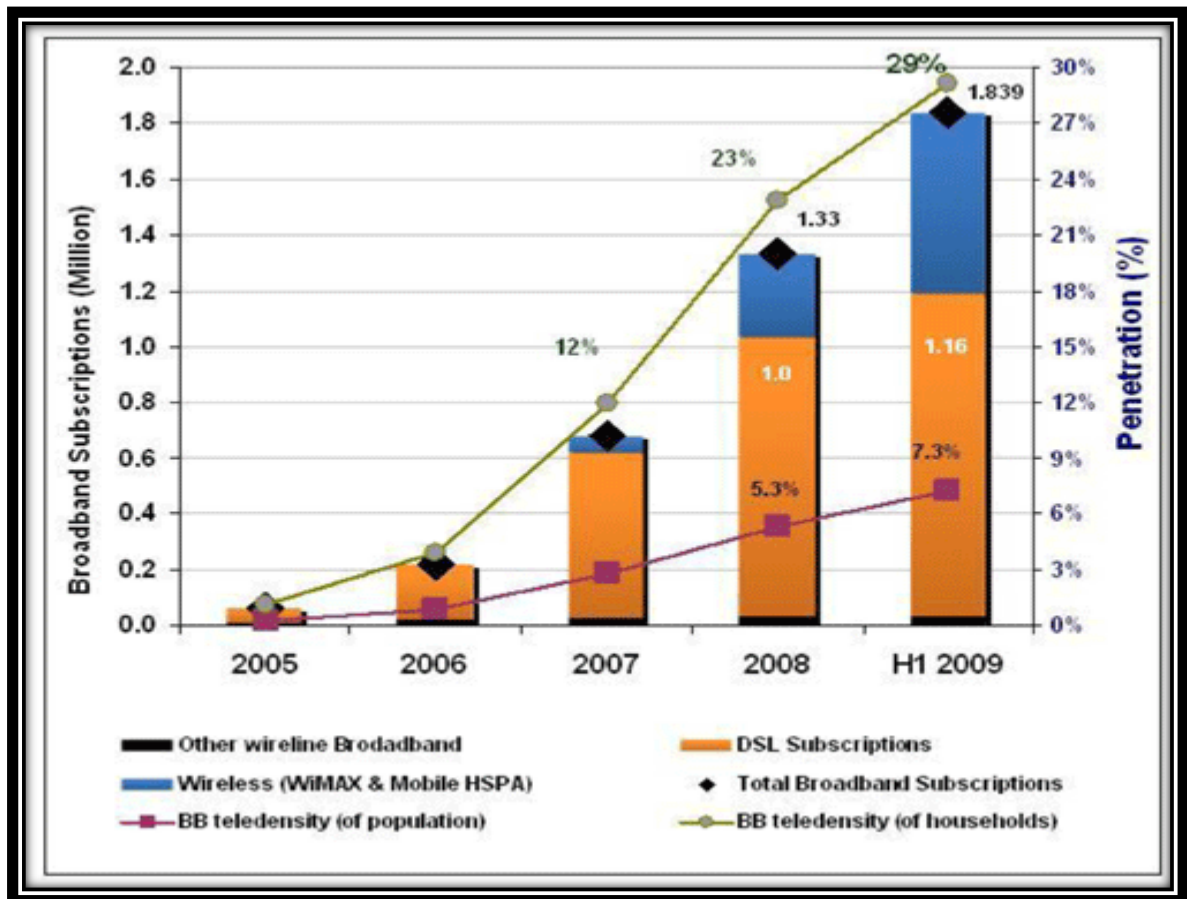
Figure 2.3: Broadband Subscriptions in SA Since 2005 (MCIT 2009)

2.4.1 Studies Concerning the Internet and Education in Saudi Arabia

There are many studies focusing on the use of the Internet in Saudi education. In this section, some important studies about the application of the Internet in the field of Saudi HE are introduced. For example, Lal (2000) studied the perceptions of faculty staff members in Saudi universities regarding the importance of utilising the Internet in education for teaching. A random sample was acquired and a questionnaire used to collect the data. The findings showed that male instructors' perceptions were more positive regarding the importance of using the Internet in learning and teaching processes compared to those of female instructors. Also, the perceptions of instructors from science faculties were more positive compared to those from human science faculties. The study made the suggestions below:

❋ The Ministry of Higher Education (MHE), the Ministry of Education (MOE) and universities have to adopt and implement the Internet and make it available for faculty staff and all other staff.

❋ Colleges, schools and other educational institutes should be supported with the most advanced computers and other equipment that can help them to use and benefit from the Internet.

* Training programmes and workshops should be provided to support users to benefit from the Internet.

In addition, Al-Qublan (2002) aimed to investigate the reality of using the Internet in universities in Riyadh, SA. A random sample of female instructors, as well as female learners, at universities in Riyadh was investigated. Three institutes were chosen and 233 respondents participated. The study found that 23.2% of the respondents did not use the Internet due to their lack of experience and skill; in addition, 76.8% of respondents were new to using the Internet. The reasons for using the Internet included to widen their knowledge and to use e-mail services. Also, users faced many difficulties: the sudden and frequent stopping of the service, the slowness of the Internet, and a lack of English language skills among participants.

Al-Durman (2002) investigated the use of the Internet in academic libraries in SA and in other countries. Qualitative and quantitative approaches, in the form of a questionnaire and interviews, were used to collect the data. It was found that three academic libraries in SA (including IMBSIU) did not provide Internet services in their libraries; KAU academic library, on the other hand, used the Internet for the first time in 2000. The study found that there was lack of planning to introduce the Internet into academic libraries and also discovered that the obstacles to effective use of the Internet in academic libraries included a lack of financial resources and a lack of skilled librarians to deal with the Internet.

A study by Al-Oubod (2003) examined the obstacles to using the Internet in KSU's academic library. A questionnaire was designed to collect data from students from many colleges and departments during semester two in 2002/2003. Several findings emerged as follows:

* 80% of students learned how to use the Internet by themselves (self learning) which might prevent them from acquiring the most benefit from the Internet: i.e. they might miss the opportunity to learn how to acquire information according to scientific methods.
* The attitude of students toward using the Internet was positive; they agreed on its importance in their learning.
* 71.7% agreed that it was important that the Internet should be available in the university campus.
* Students found that the English language was the most serious obstacle in using and benefiting from the Internet.

- Slowness of the Internet and its frequent stops were also obstacles facing students in using the Internet in the academic library.

- There were shortages of computers linked to the Internet in the academic library.

The researcher offered the following suggestions:

- Create Internet labs in each department and college in the university;

- Provide training for instructors and learners in using and dealing with the Internet.

In addition, Al-Hazimy (2004) in his study aimed to investigate the use of the Internet among instructors and learners at teachers' colleges in the Makah region. He aimed to evaluate the use of the Internet, as well as problems associated with it, in order to provide suggestions to increase the effectiveness of using the Internet among this research population. 249 instructors and 472 learners were surveyed by distributing a questionnaire and the results were as follows:

1. More than 60% of the instructors used the Internet while only 44.7% of the students used it.

2. The most popular uses of the Internet were e-mail, exploring newspapers and seeking information in different fields.

3. The Internet's slow speed and being disconnected during use were found to be the most important problems facing users.

4. A lack of Internet services, a lack of resources for adopting the Internet in delivering learning, and not supporting academic libraries with equipment such as computers and appropriate software were among the obstacles hindering users from using the Internet.

5. Other problems, such as not having enough PCs connected to the Internet, not providing sufficient publicity and details about what Internet services were available, and not providing appropriate training in using the Internet were also among the problems facing users.

Several suggestions and recommendations emerged from this study and are summarised as follows:

1. Provide appropriate training programmes in using and applying the Internet in learning for both instructors and learners;

2. Support the academic libraries included in this study with all the equipment they need, such as PCs to serve the Internet;

3. Use the Internet in learning;

4. Develop coordination among all colleges regarding the use of the Internet and its services and create cooperative training programmes;

5. Raise awareness of using the e-mail service to make appropriate contact and interaction between instructors and learners.

Al-Hazmie (2004) conducted a study among teachers at KAU to evaluate their use of the Internet. The study aimed to investigate the reality of Internet usage among faculty members and discover the motives behind their use; it also aimed to investigate how they used it as a modern source of electronic information. A quantitative method was used to collect the data for this study and the results were as follows:

1. 91% of the total sample indicated that the most important motive for using the Internet was searching for new information for research and scientific studies, followed by finding out the latest developments in the field of specialty.

2. The results also showed that the e-mail service came in first place in terms of the highest usage, followed by Internet search and surf services.

3. E-journals were the most important source of information.

4. The Yahoo search engine came first in terms of usage, followed by Google.

5. 62% of the participants were satisfied with the outputs of their searches of the Internet.

6. The most noticeable problems were the slowness of Internet connections in laboratories and the lack of Internet connections in instructors' offices.

7. There was a lack of knowledge and skills on how to use the Internet effectively.

The study provided the following suggestions:

1. Offer special courses and training workshops in using the Internet.

2. Provide instructors with PC computers connected to the Internet in their offices.

Overall, these studies did not address the importance of the Internet in supporting academic libraries in serving their users enrolled on distance learning programmes.

2.5 Summary

New developments in all aspects of Saudi life, but especially in education, have driven the country to focus on improving HE; one aspect of HE is DL. Government development plans, especially the 8th, have accorded this area great importance and have therefore encouraged all Saudi public universities which are currently not involved in offering DL to do so. Also, other government plans have emphasised the importance of information in developing the country.

In short, after a review of the most significant literature and documents in relation to DL and AL in Saudi HE, and in parallel with the aims and objectives of the study, it can be said that:

- DL in SA is developing rapidly and is affected by all levels of technology;
- E-learning is considered to be the most advanced mode of delivering DL in SA;
- Information services are essential in any mode of DL;
- Higher education in SA is facing several challenges which can be partly solved by improving and developing the current DL;
- Higher education programmes, including DL, need high quality information services and resources;
- There is a shortage of studies that have addressed in particular the importance of information services and resources in supporting DL in SA;
- Current e-learning models used in SA rarely explain in detail the processes and guidelines involved in providing information services;
- Many universities in many countries, especially in modern ones, have set up various guidelines and rules to support DL with the necessary resources and information services; this is lacking in Saudi DL;
- DL in SA has been implemented for more than 40 years;
- Academic libraries in SA are facing a number of problems and have failed to design special information services to support DL;
- No complete single study related to the subject of this research has been carried out in SA or in the GCC countries.

Chapter Three
Literature Review

3.1 Higher Education Means of Delivery

Higher education establishments around the world are witnessing change in many ways and these changes have led to the creation of several kinds of higher education setting. Nekatibeb (2001, pp.5-6; Obanya *et al*. 2002) indicated that there are three types of university in the world. These are as follows and are illustrated in Figure 3.1.

- Conventional Universities: This is the traditional education system which delivers full-time education based on-campus by using face-to-face delivery methods. This kind of education constitutes more than three-quarters of the world's universities. Its students tend to be aged 16-24 and are mostly high school graduates who are not in employment.

- Distance and Open Universities**:** This system provides education at a distance. Ten percent of the universities in the world are in this category. Its learners are often adults with an average age of about 35 years; they are usually employed and are unable to undertake full-time study. Learners are separated from the lecturers by distance and they study in their own space and time.

- Dual-Mode Universities: This kind of university combines and offers both DL and face-to-face, on-campus education under one management.

Conventional universities/institutes

Traditional education/on campus **Full time education** **Face-to-face delivery**	**3/4 world's universities** **Student ages 16-24** **High school graduates - not in any employment**

Distance & open universities/institutes

Education at distance **Not full time education** **Learners separated from instructors**	**10% world's universities** **Learners usually adults (average age=35)** **Learners usually employed**

Dual - mode universities

Combines two kinds of universities **Run under one management**	**On-campus education (face-to-face)** **Distance learning**

Figure 3.1: Types of Universities in the World

This revolution has benefited from advances in ICT and these can be seen in the changes in teaching methods and improvements in academic and non-academic support services, opening up the possibility of more effective and efficient distance education.

3.2 Distance Education

Distance education in higher education developed widely during the last century and is improving in its pedagogical quality in this century with the advent of new communication technologies and delivery methods. Distance education has and should continue to use and benefit from such new technologies to provide education for many learners around the world. As evidence for this, Ben-Jacob *et al.* (2000, p.8) suggested that DL would become a commonplace phenomenon and would allow vast numbers of learners to further their

education. Bower (2001, p.1) mentioned the importance of DL in HE in the United States by saying:

> Who could doubt that DL, in the multiple forms it takes today, is the hottest, sexiest, most controversial issue in American HE? Hardly any issue of any HE journal or newsletter is published that doesn't contain at least one article on the topic of DL or educational technology.

Hence, Allen and Seaman (2010, p.5) in their survey of more than 2500 universities in the U.S., estimated that there had been an increase of 17% in the number of students enrolled in DL (more than 4.6 million) during the year 2008 compared to the previous year. They mentioned that universities in the U.S. reported an increasing demand for DL courses, with a 73% increase in applications for existing online courses and programmes.

In this 'digital age', people are usually exposed to or have used one or more of the technologies which include digital media (e.g. TV, radio, e-newspapers, e-journals or the Internet) for the delivery of remote education. In reality, education has moved away from being conducted inside four walls and limited to some people, to being delivered (sometimes free) and available to all, even to those who have not previously had a chance to fulfil themselves through the traditional education system. In this chapter, therefore, distance education and its technologies are explained in order to offer a better understanding of this kind of education and the development of the tools that are used to deliver learning to students. In addition, some issues that relate to this kind of education are discussed.

3.3 Definition

When researchers speak for the first time about distance education, it is assumed that students are the focus of the discussion; this ignores an important element: the instructors. In reality, there are two important inter-related elements involved in this kind of education. Each element can be considered as half of the distance education process. Keegan (1996, pp.37-39) described these two elements and their relationship in Figure 3.2.

Figure 3.2: Keegan's DE Elements.

Keegan (1996, pp.37-39) describes the first element of distance education, "Distance Teaching", as the process of developing course materials for distance learners; this could be done by teachers or institutions involved in this kind of education. He describes the second element, "Distance Learning", as the process seen from the student's perspective. In brief, from Keegan's descriptions, it can be said that distance teaching looks at instructors and their role in delivering distance education while distance learning looks at the learners themselves and how they can achieve the goals of the course, modules, programme or outcomes successfully.

By reviewing the literature regarding distance education, several definitions have been found which have been offered by scholars. Most of these definitions indicate that there is no accepted definition of distance learning that includes all aspects, although it has been identified clearly by many scholars such as Robinson and Bawden (2002, p.49). In fact, most of the definitions have been affected by the nature of this kind of education and the technologies available at the time when the definitions were written. In general, most distance education definitions in the literature tend to describe the same educational system, "Distance Education", with the same goals, but each definition may concentrate on one or more distance education factors. For instance, some definitions have focused on emphasising some key features of distance education, such as separation in space and time, and some of them have looked to others, such as the technologies, the support and the administration. Sewart (1993, p.2) investigated the origin and the components of distance education and offered this view:

> Distance education is seen by some theorists as an entirely separate form of education, by others merely as taking a place on a continuum of types of education which has at one end the totally supportive one-to-one, face-to-face situation and at the other end a process of learning from materials which is devoid of human interaction.

One important key feature of the term distance education is therefore the word "distance" which means, according to some scholars, the separation in time or in space or both between

instructors and learners. This key is the most known feature of distance learning and therefore some scholars have focused most of their attention in the first place on defining distance education according to the theory of distance (Holmberg 1989, p.3; Mugridge 1991, p.313; Keegan 1996, pp.50-251; McIsaac and Gunawardena 1996, p.403; Robinson and Bawden 2002, pp.49-50; Maguire 2005).

By analysing these studies, it can be understood that distance education is the provision of educational opportunities to many people, in many places, and at any time. Therefore, in all these definitions, the key aspect is the extension of education to students in other locations at any time. Moreover, these definitions have used this key feature to distinguish distance education from the traditional education system (face-to-face education). For example, Nekatibeb (2001, p.4), in his study, stated that: "Central to the meaning of distance education is the fact that teachers and students are separated from each other during the process of learning".

Some scholars have focused on other important elements of distance education such as the administrative processes and defining distance learning as "planned learning". This intention helps to organise and plan distance education in an appropriate way. Actually, distance education has been spreading very rapidly, as stated by McIsaac and Gunawardena (1996): "Distance education has experienced dramatic growth both nationally and internationally since the early 1980s". Thus, DL needs to be organised, planned and administered at a level equal to on-campus study. To support this trend, several scholars (Holmberg 1989, p.3; Moore 1990, cited in Maguire 2005; Moore and Kearsley 1996, cited in Stenerson 1998; Keegan 1996, pp.50-51; Nekatibeb 2001, p.4; Ball 2003, p.73; CDLP 2005) have added in their definitions, as well as the separation in time and space, the importance of planning and organising DL processes.

Another important feature of distance education, which has been described in several definitions, is the support that distance learners need and can get from their institute. This feature has been considered relatively recently to ensure that DL is equal to on-campus study. Opportunities for support have increased because developments in distance education technologies have allowed and helped institutes to provide distance learners with the academic and non-academic support they need. For instance, educational resources and library services can be provided to distance learners in a similar way as those services are provided for students' on-campus. The need for support has been acknowledged by several

scholars (Holmberg 1989, p.3; Keegan 1996, pp.50-51; Simpson 2002, p.2; CDLP 2005). In fact scholars have stated that students in distance learning need more attention and more support to provide a similar experience to that received by on-campus students.

As the methods used in delivering distance education to students in remote locations have developed, the definition of distance education has had to take into account the methods (and technologies) used to deliver educational materials and create appropriate interactions between instructors and learners. These technologies have moved distance learning from being a one-way learning system to one similar to face-to-face learning. Therefore, the interaction between instructors and learners and their tools have led several scholars to take into account the distance learning technologies when they have defined distance learning (Moore 1990, cited in Maguire 2005; Keegan 1996, pp.50-51; Lewis *et al.* 1999, p.2; USDL n.d.; Ball 2003, p.73; CDLP 2005).

A definition for distance learning was provided by Schlosser and Simonson (2002, p.4). They stated that distance learning is: "institution-based, formal education where the learning group is separated, and where interactive telecommunications systems are used to connect learners, resources and instructors." Supporting this definition, Keegan (cited in Hiple and Fleming 2002), mentioned two important features which can be used to describe distance education in the "information age" which we are now living in (Eyre 2003, p.219). These are as follows:

- In addition to the separation between teacher and learner, communication must be electronically based;

- Communication must be bidirectional. Not only does the student receive communication from the teacher; the student also directs communication to the teacher and to other students.

The importance of taking into account new developments in the definition of distance learning is emphasised by Hiple and Fleming (2002, p.1). They criticised other definitions of distance education when they noted:

> Traditional or conservative definitions of distance education refer only to a separation between teacher and learner and their use of some means of communication. Such broadly based definitions are of limited utility in the Information Age, since they could apply equally to a correspondence course conducted by post in the 1920s or to a workshop conducted via synchronous, Web-based video-conferencing in 2001. As communications technology has evolved from paper and pencil through radio, television and the Internet, the definition of distance education has changed accordingly, so that newer definitions of distance education have come to include additional criteria.

Defining distance education has therefore been the subject of much debate and there is no single definition that is accepted by all. As a result, no unique definition has been found that could cover and describe clearly all the components of distance education, even though there is agreement on its common elements. In short, most definitions of distance education agree on the idea of the separation between instructors and learners in time and space; they also agree on using two-way communication devices (technology) that link teachers and learners in order for them to make the necessary interactions (the direct and indirect communication between teachers and learners). Some of these definitions have also, when comparing them with on-campus students, emphasised the need to help distance learners become "self-learners" and acknowledged the needs they have and the support they want. Definitions of distance education have indicated the major differences between distance education and traditional forms of learning. There are, however, some factors that a distance education system has to have in order to be considered as distance education, as Holden and Westfall (2006, p.9) mentioned:

1. Physical distance between the student and the teacher – the most obvious element.
2. An organisation that provides the content.
3. Part of a curriculum – learning must have an objective and therefore must have structure.
4. Measurement of learning – without which no learning can be observed to have taken place.

These factors can be used to define distance education and thus have a mediatory place among other definitions of distance education; they can be summarised, for the purpose of this study, in the following statement: A very well organised education system offering an accredited form of remote study that is supported by contents and resources.

In addition, because of the fast growth of new and advanced technologies, distance education scholars have had to re-define DE according to the new communications media and other new technologies that could be used in delivering distance education. As this is the case, distance education could be seen as a new educational system that uses printed materials and other advanced communication technologies that help to create the necessary interaction between instructors and learners. Moreover, it can be stated that DL is a method of education directed at remote learners using several technologies. These technologies could be used to enhance distance education programmes, as well as traditional education, by using and applying distance education technologies in enhancing methods of delivering traditional learning and teaching.

In addition, to give a clear picture of distance learning history and its developments, Flores (2006, p.8) outlined the family tree of DL history which has been adapted from Holden (2006). Figure 3.3 below gives a clear description of distance learning's history and its phases:
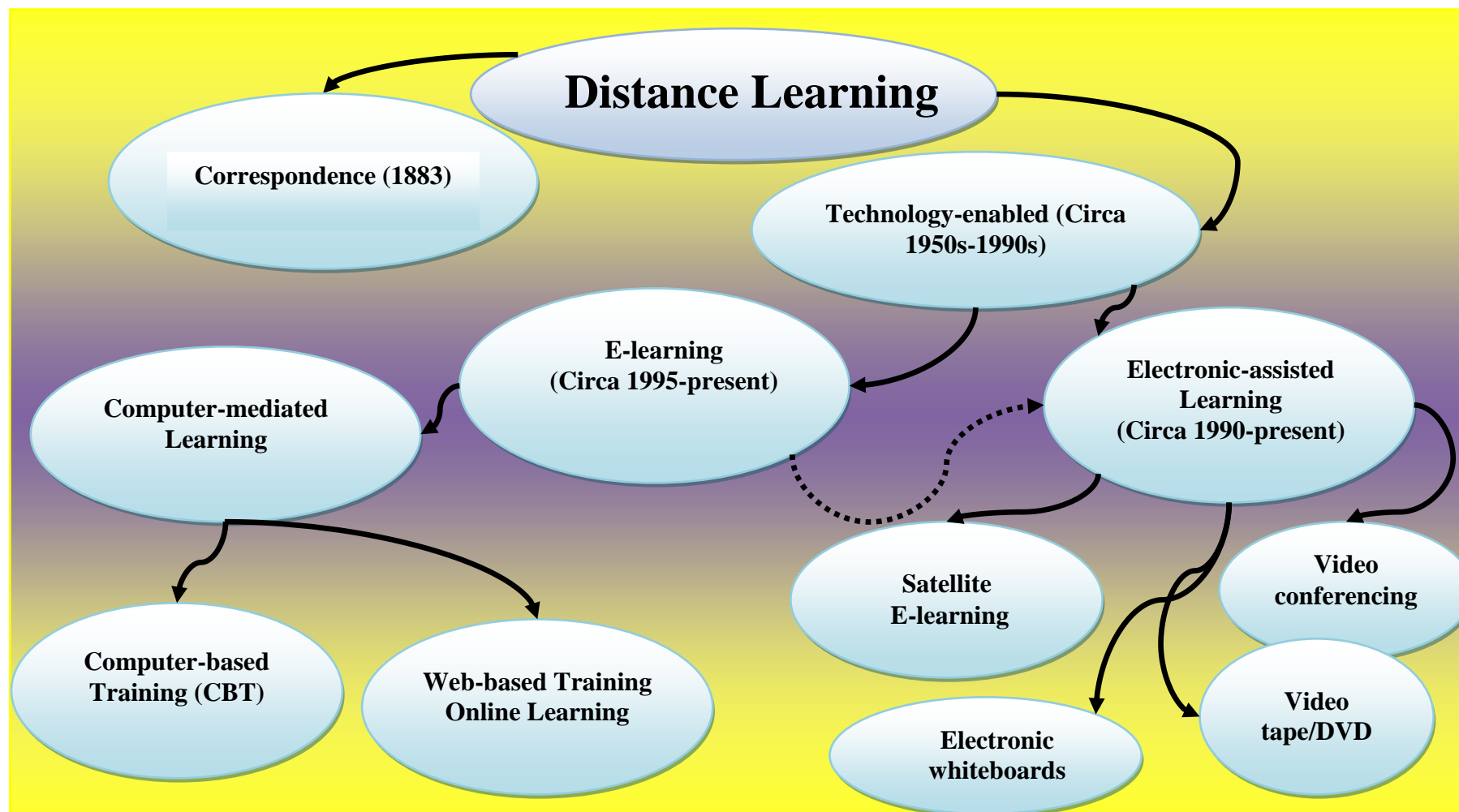
Figure 3.3: Family Tree of DL as adapted from (Holden 2006) Cited in Presentation by John G. Flores entitled "Uniting Learners around the World"

In conclusion, distance learning can be defined as the method of delivering education to learners who cannot satisfy institutions' regulations for attending classes physically, by using communication technologies available to learners, teachers and educational institutes.

3.4 The Benefits of Distance Learning

From the previous multi-definitions of distance learning it can be said that distance learning is a way for an educational system to spread education to a wider group of those who need it. Indeed, it is an important strategy for helping to solve the undoubted need for education by many people in the world despite their backgrounds, their previous knowledge, their wealth, their age and so on. By applying DL, many categories of society could have the chance to obtain the education they need equal to those who can afford traditional learning. In addition, distance learning can help to address the needs of people who require education at all ages. Indeed, one of the most important characteristics of distance learning, which can be seen very clearly these days, is that it will increase access to learning opportunities across the globe. Nekatibeb (2001, p.3) notes that distance learning is now well established in a number of countries and regions such as the United States, Asia**,** Europe, Latin America and Africa. There are several benefits associated with applying and using distance learning and these can be classed under two headings:

- An organisational perspective;
- A social perspective.

3.4.1 The Organisational Perspective

The new revolution in ICT has driven changes in the policies of higher education institutes and has encouraged them to look for new methods of providing education to all who need it. This revolution is intended, for example, to minimise the number of high school graduates each year that cannot be accepted in traditional higher education institutes, resulting in many people not being able to continue their education. Universities are also using it to increase the skills of their staff and keep them up-to-date with any new technologies in their field while individuals are using distance learning for their own professional development and to enhance their work opportunities. Furthermore, governments are using this method to provide professional development for employees, such as teachers in schools and/or colleges or other workers, in order to enhance their abilities, skills and knowledge as well as to deliver education to remote rural areas that might not otherwise be served by traditional education. Thus, many higher education institutes all over the world are revising their policies and starting distance learning, allowing them to free themselves gradually from the traditional

education system. This trend cannot be achieved unless institutes apply and use new educational technologies such as the Internet and other communication technologies.

Sumrall (2002, p.17) mentioned that distance learning can significantly reduce the need for learners and teachers to be in the same place at the same time. It is a unique way of extending the traditional university to the wider population. Course materials can easily be sent when appropriate by using new technologies such as the Internet. Distance education therefore reduces the gap in space and in time between instructors and learners. It helps also to create two-way communication, which can help improve interaction. Overall, distance learning can overcome some problems that higher education institutes are facing. These are as follows:

- The limitation of available space to allow more learners on-campus;
- Limited resources;
- Few instructors;
- The limited academic support on-campus;
- The limited non-academic support on-campus;
- The limitations of parking space available on-campus (Online Accredited Degrees blog 2009).

Similarly, Jones (2003) concluded in his study that: "One solution to the financial and physical facilities problems universities may have in dealing with the predicted economic and enrolment conditions could be found in distance learning".

To support the trend in using new methods of delivering learning, especially in developing countries, Afifie (2004, p.1) concluded in his study that most of the GCC universities are planning to deliver and undertake distance learning for one important reason: the spread of delivering this kind of education among higher education institutes worldwide. The GCC higher education institutes are keen to develop distance learning as a delivery method and some of them are keen to use and implement it as soon as possible. Thompson (2002) noted that distance learning is one of the most rapidly expanding sectors in higher education. Meduri (2005, p.1) supported this trend by saying:

> In developing countries, the quest for higher education is increasing due to various socio-economic-political demands. Equalization of higher educational opportunities has become an important goal of contemporary developing nations. Open universities have become powerful instruments for higher educational development [in] modern societies [and] are considered to be a great educational innovation of modern times. The founding of open universities marked the beginning of a new and prestigious era in the history of modern higher education. They are harbingers of [a] new educational revolution. Developments in communication technologies have enhanced the potential and utility of open universities.

It is therefore very important to use distance learning in higher education to deliver and conduct off-campus education when resources to run on-campus education are limited. Butcher, (cited in Nekatibeb 2001, p.6), gave the following reasons, which could be seen as common to all developing countries, such as those in the Arab world and in Africa, that have encouraged higher education institutes to adopt distance learning as a method of delivering learning:

1. Pressure from employers to produce skilled workers;
2. Competition from private education and colleges;
3. Need for knowledge production from higher education to diverse locations;
4. International competition;
5. Opportunities created by technological developments and the development of curricula to cope with technological advances;
6. Pressures to increase access to higher education for larger numbers of students;
7. Dwindling public sector budgets for higher education;
8. Western organisational models of universities which may not be appropriate for the African context;
9. Perceptions of declining standards of quality in higher education;
10. More efficient secondary school educational systems;
11. Population growth.

To summarise, distance learning is being increasingly adopted in developing countries for the following reasons:

- The growth in the number of people who require HE;

- The shortage of resources (money, teachers, space…etc) to provide on-campus learning;

- The shortage of universities in the developing countries;

- The spread of people geographically over the developing countries which does not allow these countries to start universities or create branches in each area;

- The competition among people to have better jobs and create better lives;

- To elevate people's social status;

- To allow women with fewer chances to access education to improve their knowledge and their skills and have equal chances with men in terms of learning;

- To meet the needs of disabled people who wish to continue their education (Altowjry 2005, p.15).

To support the above points and the thinking behind adopting distance learning as a useful alternative method to deliver HE, Valentine (2002) offers the following reflections, summarised below:

1. Many of the promises of DL are financial in nature. Universities hope to save money by delivering education to students that are unable to attend classes because of time or distance. The theory is that class size increases while the overheads remain the same.

2. Bollag and Overland (2001, p. A29), cited in Valentine (2002), decided that developing countries are using DL to solve the problem of increasing enrolments and the lack of physical building space.

3. Bollag and Overland (2001, p. A29), cited in Valentine (2002), say that countries such as China are moving from "elite to mass education" and that "traditional universities can't meet the demand".

4. Several real-life examples regarding using DL in certain countries including China, the UK, the USA and Canada, have proved that DL can meet the promise to deliver education to a geographically broad and diverse population.

According to Horgan (1998, p.1, cited in Valentine 2002), many universities in the world are experiencing the pressure to control several important academic and non-academic issues such as cost, improving the quality of instruction, focusing on customer needs and responding to the competitive pressures. Their answer to these problems is by using distance learning technologies. Administrators are hoping that distance learning will make higher education more cost-effective (Dibiase 2000, p.134; Valentine 2002).

3.4.2 Social Perspective

The California Distance Learning Project (CDLP 2005) stated: "DL serves learners who are not likely to attend traditional classroom instruction (effectiveness). In some cases it can serve as many or more learners per dollar spent (efficiency)". The CDLP (2005) research shows that DL can also attract and serve lower level learners (equity). Dhanarajan (2001, p.67) focuses on several issues regarding DL in Commonwealth countries over the next 25 years, such as equity, and states that:

> The question of access and equity must always be a primary consideration for all those engaged in distance and open learning. With close to 135 million children out of school nearly 1 billion adolescents and adults either under-literate or illiterate, and about 2 billion working individuals requiring some kind of retraining and re-skilling throughout their lives, not considering access and equity is not an option.

Distance education gives learners flexibility in time and place. Recently, it has allowed distance learners to interact and access information and resources via the Internet, e-mail, mobile and other technologies. In addition, it allows students to study when it is suitable for them (in their own time), and where it is suitable (in their own environment, i.e. home or workplace). Adult life for many people is very complex and demanding; many adults are unable to attend an institution and continue their traditional education for a range of reasons. The CDLP site notes the following reasons that potential students might be attracted to DL:

- Having work and family obligations that make attending regular classes difficult;
- Experiencing inadequate public transportation systems;
- Living in locations without convenient access to traditional classes;
- Lacking the full confidence to participate in a large classroom setting in front of other students (CDLP 2005).

Convenience in time and space is one of the most important elements of distance learning. As a result, DL stakeholders are not required to meet face-to-face and sometimes are not required to meet in time either. This characteristic is a big advantage for individuals who cannot attend regular classes. Afifie (2004, p.6) highlights key aspects of DL in relation to the issues mentioned above:

- DL is usually associated with a life-long learning philosophy which is dedicated, not only to learning or development, but to allowing distance learners to improve their knowledge and skills.
- DL is commensurate with the continuous development of knowledge management and its technologies. For instance, sometimes it is an easy task to find the most current information in any field through the Internet, which lately has helped to spread the use of DL all over the world.
- DL with its continuously advanced technologies has demolished space and time boundaries in obtaining HE and yet the quality of its outcomes is becoming equal to on-campus outcomes.

Supporting the last point, some studies have shown that there are no significant differences in academic achievements between students who acquired their learning by DL and those who used the traditional system. One of the studies that supports this idea is that of Bernard *et al.* (2004, p.42). They concluded "We found evidence, in an overall sense, that classroom instruction and DL are comparable". Tucker (2001) concluded that: "It can be an acceptable alternative because it is just as good as traditional education".

Al-Orieni (2005, pp.38-39) mentioned five reasons which make DL in higher education very important and useful. These are as follows:

1. Convenience: A DL system provides greater convenience for instructors and learners. Galusha (1998, p.3) supported this notion by saying: "Students who enrol in DL courses do so for convenience. They are either time-bound due to work or travel schedules or location-bound due to geographic or family responsibilities." Moreover, using the Internet

has enhanced DL and has made it more convenient: "The Internet is proving to be an effective delivery medium that enables communication of knowledge at the student's convenience" (Galusha 1998, p.9). Valenta *et al.* (2001, p.113) decided that: "Among the positive aspects documented were that online courses and DL provide greater flexibility and student convenience."

2. Flexibility: DL gives learners the freedom to participate according to their wishes. Syed (2001, p.19) stated that: "Distance education provides additional value to the learner because it offers more flexibility compared to traditional learning environments." He also argued that this flexibility can be seen through the following elements:

- Distance education provides flexibility for those who are disadvantaged by limited time, distance or physical disability. They can benefit from a more flexible environment that lets them learn in their own time, wherever they choose.
- Shy students can choose to observe and become an involved participant because other students cannot see them.
- Adults may take a second chance at a college education. Most adult learners have children and a job. They cannot spend several hours in a classroom because they have a home to manage and house payments to make. With DL programmes, they are in control of what they do and how fast they cover the material within a range of time.
- After completing an undergraduate degree, learners may decide to enter the workforce and at the same time get an advanced, graduate-level degree. Distance education provides a good solution. In many cases, students can immediately put into practice what they learn (Syed 2001, p.19).

3. Effectiveness: some studies in DL have shown that DL is equal to, or better than, traditional education, especially when DL technologies are being used effectively. For example, Phipps and Merisotis (1999, p.24) stated that: "Many experimental studies conclude that students participating in DL courses perform as well as their counterparts [studying] in a traditional classroom setting. These studies suggest that the DL students have similar grades or test scores […]". Another study run by Potashnik and Capper (1998, p.43) supports the effectiveness of DL by saying:

> Numerous studies have been conducted assessing the effectiveness of DL, [...]. More than 70 years of research on print-based correspondence courses has consistently documented their effectiveness compared with courses taught in conventional classroom settings. […] those who learned at a distance on computers learned as well as, or better, than those who learned in traditional classrooms, and in some cases the former learned both faster and at substantially lower cost than the latter (Potashnik and Capper 1998, p.43).

4. Affordability: Many forms of DL are affordable for individuals and some of them can be acquired for less cost. For example, online learning is providing an opportunity for many adult learners to undertake a wide range of studies in their spare time (Christensen *et al.* 2003, p.48). Higgins (2002, p.2) states that providing accessible education for retraining and the up-skilling of marginalised populations is one way of meeting goals for social justice.

5. Multi-sensory: The DL system uses several methods to teach and to deliver course materials to learners: for instance, television audio-visual tapes, cassettes, computers, the Internet and so on. Syed (2001, pp.18-19) supports this positive view regarding using DL in HE by saying:

> Multi-sensory learning environments maximize the learner's ability to retain information. Researchers have shown that we can remember 20 percent of information by seeing it; 40 percent by seeing and hearing it; and 70 percent by seeing, hearing, and doing it. Any instruction that incorporates an active response from students will produce greater learning. Many researchers agree that interactive multimedia can help people learn more efficiently because of the parallels between multimedia and the natural, balanced way people learn. Multimedia's multi-sensory capabilities (including text, graphics, colours, audio and video) create a much stronger, lasting impression than single- or dual-sensory input through increased interactivity.

The flexible, rich content of multimedia also supports better-structured lessons. With interactive multimedia instruction, instructors can elicit active responses from each learner, which, in most cases, is difficult in a traditional classroom environment. Multimedia technology, high-bandwidth data communication and improvement in protocols to incorporate multimedia have each played a distinct role in making DL one of the most interesting new directions of education. DL can introduce new methods for learners and instructors in order for them to interact by providing solid multi-sensory learning experiences based on scientific facts (Lockee *et. al.* 2003, p.8). However, the implementation of DL and its technology, such as e-learning, could face some obstacles, especially in developing countries. Dadzie (2009, p.207) decided that:

> The level of e-learning adoption in developing countries cannot be matched with that of the developed countries because of lack of facilities such as infrastructure, technology, low connectivity and low levels of training. Nonetheless, developing countries need to bridge this 'digital divide' by pursuing vigorously any home-grown solution which maximizes the use of infrastructure and technology.

This is also supported by Hepworth and Walton (2009). They said: "The lack of access to ICT due to a lack of funds or infrastructure, the digital divide, may limit the opportunity to become information literate" (p. 29).

Hence, from the existing DL experiences among distance learners and their institutes, it is clear that the importance of DL lies in reducing obstacles and helping people, regardless of their age, to continue their education. Flexible learning approaches that are not classroom-centred are suitable to potential learners such as older people. In such a system, courses extend education beyond the classroom walls and, in some situations; learners can contact instructors for more interaction (Kocak and Kalender 2002).

In conclusion, it can be seen how important distance learning is and how it can be of benefit organisationally and socially; it can solve many problems that are facing individuals, governments and education institutes. Distance learning would therefore help to solve several problems facing education planners, especially in HE. It can be concluded that the DL system is very important for organisations, individuals and for many nations, particularly for developing nations.

In the following section, the researcher discusses those DL technologies that are helping higher education institutes to apply this kind of education or to improve the current status of institutes who have already applied it for several years. These technologies associated with education, and side-by-side with the rapid growth in ICT, have helped in giving many stakeholders a positive attitude towards the delivery of DL.

3.5 Distance Learning Technologies

There is no doubt that education has benefited tremendously from the development of ICT. This can be seen very clearly from the tremendous change from HE institutes using the old fashioned form of DL, which was mail-based, to those using recent technology based on the WWW and the Internet and taking advantage of the benefits of e-learning technologies. However, between these two eras of DL technologies, several technologies have been used and still exist in some HE institutes. This section offers an overview of the technologies that have been most used in DL, together with the thinking behind the decisive changes that have occurred in educational technologies.

3.5.1 The Advantages of DL Technologies

The researcher can state that the technologies that link learners, instructors and the institutes could well be the backbone of the DL system; this could be described as the cyber campus for distance learners. To explain more about the importance of DL technology, the Florida Centre for Instructional Technology (2007) published an important document: "*A Teacher's Guide to Distance Learning"* written by Barron (2000). This document describes the benefits of DL technology as follows: "DL technologies offer a myriad of benefits for K-12 education, including convenience, flexibility, effectiveness, and efficiency" (p.18). In addition, the document describes these benefits, mentioned previously in 3.4.2, which are similar but not identical to the benefits of DL itself. The advantages of DL technologies are as follows:

- Convenience: DL technologies can solve space problems for both instructors and students. Advanced technologies such as the Internet, e-mails, videotapes, telephone… etc. can be used anywhere.

- Flexibility: Learners using DL technologies can use many of these according to the time they have available. Technologies give learners the opportunity to consult, watch and review the materials any time and for as long as they want.

- Effectiveness: Students in DL are spending more time reviewing and studying materials transferred by DL technologies. It gives them a better opportunity to understand and re-review materials than the on-campus student. This leads some researchers to state that DL is equally or more effective than traditional education when the methods and technologies used are appropriate.

- Affordability: Some of the common DL technologies used by learners are available at no added cost to learners' budgets. Barron (2000) stated, according to Casey, Dager and Magel (1998), that: "over 99% of the homes in the United States have televisions and 65% are connected to a cable-TV service" (p.19). It is easy for these homes to watch a videotape or a public broadcast television. The document states that: "almost all homes have access to a telephone, enabling the use of voicemail and audio conferencing" (p.19).

- Multi-Sensory: Distance learning technologies help learners to learn in different formats and by using multiple devices. These devices or technologies are intended to meet each learner's interest and ability. This benefit of DL technologies will not be useful unless DL courses are well designed by offering learners a wide range of media to use.

- Interactivity: The most advanced DL technologies offer more interactions between students and instructors and among students themselves. These technologies may solve common problems facing some students, such as feeling embarrassed in face-to-face study. They can allow every learner to participate in a convenient atmosphere.

- Equity: Distance learning technologies are helping governments to deliver training and education to those who need it in rural areas on an equal basis with those in cities.

- Accessibility: Distance learning technologies have developed very quickly during the past ten years. These developments have helped students to access their institutes' support systems including the library and the catalogues and databases of other libraries, and to use other services available to on-campus students.

Nipper (cited in Berge 1997, pp.28-30) describes three generations of DL that are historically linked to the development of production, distribution and communication technologies. These three generations are illustrated in Table 3.1 as follows:

Table 3.1 Nipper's Generations of DL

Generation	*Description*	*Objectives*
First	• DL or correspondence teaching. • Started to grow rapidly in the last part of the 19th century. • Education is based on printed material. • The medium for communication is the letter, represented in a text-based form of communication. • The medium is asynchronous, which is characterised by a larger degree of independence of time. • The medium also represents a one-to-one form of communication.	The main objective is the production and distribution of teaching and learning materials to the learners.
Second	• DL or multi-media distance teaching. • Developed since the late 1960s. • The use of printed material has been integrated with broadcast media, cassettes and, to some degree, computers. • Feedback processes are very similar to those of first generation systems, but include telephone counselling and some face-to-face tutorials. • Different combinations of forms of communication are used. • One-to-one communication and one-to-many communication	The main objective is the production and distribution of teaching and learning materials to the learners.
Third	• DL started developing in the early 80s. • It represents a shift in the approach to learning. • It is no longer viewed as an individual process but a social one. • Communication between learners and teachers, and among learners, is a key element. • Communication is based on computer conferencing. • Many-to-many communication • All participants can take the role as sender or receiver.	Improve interaction between instructors and learners by applying new technologies in delivering learning materials.

Another development regarding DL is mentioned by Taylor (2001). He described five generations of DL, as summarised in Figure 3.4 below. The intensive use of advanced interactive technologies characterises the current DL generation. This, as discovered, would help and support interaction between DL stakeholders which was seen to be lacking for many DL generations.

Figure 3.4: Taylor's Five DL Generations

3.5.2 E-learning

Electronic learning, which is usually known as e-learning, is widely used as an advanced method of delivering and spreading education and training; it benefits from the developments in technology. By using new technologies, including online learning, education can be delivered to people all over the world. Although e-learning is not necessarily distance learning, most distance learning programmes around the world make use of e-learning technologies and so a brief overview of some of the key features of e-learning is given here.

E-learning is based on using technologies that can be operated to link distance learners with their institutes and these days can be recognised as the increased use of computers and the Internet as new technologies in delivering education to learners. Huang *et al.* (2007, p.551) indicated that the Internet and the WWW have provided a useful environment to link distance learners with their educational institutes. They also assert that educational materials delivered by way of the Internet motivate students to make more use of the Internet and to discover new methods of navigating in order to find knowledge related to their studies. In addition, Holmes and Gardner (2007, p.13) agreed that computers have played a unique role in delivering e-learning, especially when it is noted that many learners have used computers in the delivery of their education and in order to facilitate learning. The researchers also note that e-learning can provide significant opportunities for distance students to engage in learning and in acquiring new knowledge in order to improve themselves.

Faherty (2002) gave an overview of approaches or modes which can be used in delivering e-learning, as illustrated in Table 3.2.

Table 3.2: Approaches and Modes Used in Delivering E-learning

Approach	*Description*
Web-Based Training (WBT)	This is generally a browser-based, delivered via an Intranet or Internet. It has the advantage of being able to deliver dynamic data that can be regularly updated from a central location.
WBT plus mentorship	In this mode, an instructor is usually available via e-mail, chat sessions or by telephone. For example, the United Kingdom's Open University is using this approach to support distance learners around the world.
Synchronous e-learning	Synchronous e-learning involves the instructors and learners being in the same virtual classroom at the same time. An instructor at a central location teaches a group of learners at remote locations via an Internet or Intranet connection. Instructors interact with learners via audio and video.
Asynchronous e-learning	This approach includes WBT but also includes recordings of synchronous sessions, delivered via the Internet on demand. The recordings can be controlled by the learner and replayed. This approach has the benefit of being available anywhere and anytime whilst still including the interaction of other students, recorded during live sessions.

In describing e-learning technologies, Shon (2002, p.2) summarised the media and the technologies which are being used in delivering e-learning. These are presented in Table 3.3 below:

Table 3.3: Media and Technologies Used in Delivering E-learning

Category	Type / Mode	Examples
Delivery media	Print	Textbooks, study guides, workbooks
	Audio	Streaming audio, audio tapes
	Video	Streaming video, video tapes
	Data	Web pages, CBT content, computer files, online tests.
Interaction tools	Asynchronous	Email, web-based forum, newsgroups, Bulletin Board System (BBS).
	Synchronous	Chatting facilities, application-sharing tools, teleconferencing, videoconferencing, Multi-User Dungeon.

Print materials are still considered as one medium used in e-learning which may not sit with the term e-learning. However, in some stages of e-learning, face-to-face (f2f) learning occurs at certain times and at certain levels so printed materials are highly useful during these meetings; they can also be sent by mail as part of the e-learning process.

3.6 Distance Learning (Challenges and Obstacles)

It is a fact that applying and trying any new methodology is a matter of uncertainty and can include a number of challenges and obstacles. DL is not unique and can be seen by its key players, such as students, instructors, institutes and others, as challenging; it can also have a negative impact on them and there are several challenges and obstacles that are facing DL which may have a negative impact on its effectiveness.

In order to look closely at some of the real obstacles that might affect learning at a distance, Rockwell *et al.* (1999) carried out a study to investigate the incentives and obstacles influencing HE faculties and administrators to teach via distance. In their study, they stated that:

> The majority perceived obstacles relate to time requirements, developing effective technology skills, and assistance and support needs. Monetary awards for faculty and the cost to the student were seen as neither an incentive nor an obstacle (Rockwell *et al.* 1999).

They also concluded that four out of five obstacles suggested that faculty tend to see DL as a time-consuming activity that requires the development of new skills. They thought that the main obstacles were time requirements, time taken from research, training requirements, and developing effective technology skills. The study also found that the need for assistance or support was seen as an obstacle, suggesting that faculty need to have help with instructional design and technological delivery (Rockwell *et al.* 1999). Hayes and Harvel (1999, p.8) pointed out similar obstacles that might affect DL. This study's results support the findings of the previous study, especially regarding time and cost. The researchers stated that: "Today,

the process is extremely expensive and time-consuming". In addition, Minoli (1996, p.10) indicated three barriers that may slow the potential growth of the DL market:

- Union resistance (teachers' unions). The unions are resisting the growth of DL, fearing that this will result in a reduction of teaching jobs.

- High capital cost. Starting up a DL system requires a budget given by education providers and receivers at the same time. So planners must understand that acquiring technology without a sufficient budget will not result in successful Interactive Distance Learning (IDL).

- Teacher-related factors. There are three factors involved in this obstacle as follows:

  - Technophobia: a teacher's fear of dealing with new technologies;

  - Computer illiteracy: among the population of teachers there are some that cannot deal with computers;

  - Teacher resistance: some teachers are not willing to switch from traditional education to a new form which is associated with using technologies.

Challenges, obstacles and barriers are terms that can always be associated in the literature regarding using or applying any new method or change but the obstacles that concern DL will not slow down the efforts being made towards adopting this form of education which can solve a number of problems facing education in general.

3.7 Quality of DL

Although the benefits of DL have been clearly outlined above, the quality of DL has been an important topic of debate among scholars who have compared it to on-campus education (Garrison 1993, p.9). Moreover, some scholars consider quality as a major problem facing DL and assert that this needs to be given more attention (Valentine 2002).

The quality of DL can be seen from several angles, such as from the point of view of instructors, access, cost, learners, technologies and administration (Valentine 2002). For instance, Garrison and Shale (1990, p.128), cited in Garrison (1993, p.11), argue that increasing two-way communication can improve the quality of DL. Moreover, the design of materials and resources will also affect the quality of DL (Garrison 1993, p.11). DeVries and Tella (1998, p.301) conclude that the key to success in delivering quality DL to learners is the instructor. They also say that if the instructor is sufficiently qualified then the technologies can become transparent while technologies cannot solve poor teaching. Palloff and Pratt (2000, p.4), cited in Valentine (2002), emphasise that technologies do not teach learners:

effective teachers do. As a result, instructors remain the key factor in providing quality DL and not the technologies themselves. Hence, Cavanaugh (2002, p.176) argues that quality in DL can be introduced through three stages with each stage requiring the participation of students, instructors, support and design professionals, administrators and the community. These three stages are, as illustrated in Figure 3.5:

1. The selection and preparation of the resources necessary to meet the DL goals,
2. The delivery of instruction using the best practices from education, business and research,
3. The analysis of the results of DL to gauge the achievement of the goals.

Three important elements of this model illustrate the role of libraries and information services in providing high quality distance learning which can finally result in DL programme accreditation, as highlighted in Figure 3.6. These elements are as follows:

- Well-designed and appropriate learning materials.
- Student access to learning resources and instructors.
- Development of information literacy.

Institutional policy
Strategic plan
Stakeholder analysis
Financial commitment
Team support
Technology infrastructure
Program standards
Program review
Effective communication
Student services
Information privacy
Qualified, experienced staff and faculty
Community involvement
Informed faculty
Instructor time
Instructor training
Course design and delivery assistance
Well-designed and appropriate learning materials
Student orientation and training
Student access to learning resources and instructors
Technical support for instructors and students
Technical assistance

Resources

The Quality Distance Education Cycle: RPR

Focus on content and students
Relevant and important skills and knowledge
Structured information presented in motivating context
Social strategies to promote student comfort, control, challenge
Fast feedback
Consistent, accessible design throughout each course
Highly interactive activities for student engagement
Authentic communication
Course activities designed to maximize student motivation
Activities focused on high-level cognitive skills
Development of information literacy
Development of applied technical skills

Practices

Results

Student independence
Peer review of student work
Creation of student portfolios
Varied assessments
Open-ended assignments
Secure online testing
Ongoing course evaluation by students
Evaluation of program by students and faculty
Review of program outcomes and components
Program accreditation

Figure 3.5: Cavanaugh's Distance Learning Success Factors: Resources - Practices - Results (RPR) Cycle, 2002

Good quality DL can be best achieved by using a mix of traditional forms of DL, such as the print format, side-by-side with the newest ones such as e-learning (Eaton and Hammick 2003, p.254).

Today, Ashcroft and Fong (2005), cited in (Thachill 2008), claim that "E-learning and DL students have shown a great demand for remote and online access to learning materials." Hence, quality should become an important factor in DL and its information resources and services; this leads many organisations to think about implementing it in all its aspects. Thus, the Association of College and Research Libraries (ACRL 2008) has issued guidelines for DL library services and has focused on several elements related to the importance of providing quality information services which can improve the overall quality of DL. One of the organisation's guidelines related to the quality of DL states:

> Special funding arrangements, specialized staffing, proactive planning, and promotion are necessary to deliver equivalent library services and to achieve equivalent results in teaching and learning, and generally to maintain quality in distance learning programs. Equitable distance learning library services are often more personalized than might be expected on campus, because students and faculty in distance learning programs seldom have direct access to a full range of library services and materials (ACRL 2008).

In addition, Seligman (1992), cited in Barker (1999, p.23), mentioned five important elements in providing quality for DL. These are as follows:

- Learning materials should be user-friendly, scientifically respectable, easily used by the average learner, attractive in content and layout, and related to the topic;
- Learning materials should be available and easily accessible;
- Teachers and learners should be familiar with the DL model;
- The DL system should be managed effectively;
- Feedback, evaluation and control should be presented and viewed as important elements of the system.

3.8 Distance Learning Support Models

As DL is becoming a well-known practice in universities around the world, a number of studies have taken place to evaluate, improve and develop it. One important aspect of developing DL is to create models that can help to provide a well-designed DL environment. Simpson (2002, p.5) stated that: "there are many structural models of open or DL. The simplest possible model envisages a straight transfer of material between institution and student in a kind of chemical

reaction: Student + Teaching materials = Successful student." This will be explained later in 3.8.3. He also suggests that: "Few ODL institutions now operate such a simple model, although there are some institutions in developing countries that are forced to start up this way" (Simpson 2002, p.5). This thought might be applied to the existing situation in Saudi Arabia where there is no formal interaction even though they are working hard to improve DL (Al-Shehri 2003, p.39).

The role of the academic library in supporting DL stakeholders has been largely ignored. For instance, Cooper (2000, p.123) listed the common elements of DL which have been discussed in many articles published in the USA:

1. The courses that are being provided by distance programmes;
2. The faculty attitudes and their ability in 'teaching at a distance' mode;
3. The learners and their success rates in DL programmes;
4. The technologies used in delivering DL programmes;
5. The difficulties in delivering DL to learners;
6. The administration crisis in running and controlling DL.

These issues are similar to those studies in the Saudi context mentioned in Chapter 2 where the provision of library and information services was only briefly addressed. Cooper (2000, p.123) stated that: "outside the library literature, very little attention is given to the problems of providing library services to support DL programmes. In fact, the need for equivalency of library supports for on-site and distance programmes is rarely addressed – or even acknowledged – by non-librarians in the USA."

However, in some recent literature, several studies have provided a range of DL models and these have involved several trials that take into account supporting distance learners in the area of information services. The next section therefore analyses several related DL models and extracts the most important elements related to the provision of library and information services support. These examples, trials or models are described and analysed chronologically as follows:

1. Mishra and Jain (2002) offered an online learning model, which provides a learning environment for the certificate programme in Participatory Management of Displacement, Resettlement and Rehabilitation in India. In this model, they illustrated the importance of providing all kinds of learning support to all e-learning stakeholders, including providing

online library services as outlined in Figure 3.6. This model recommends the creation of an online library to provide the necessary support for DL stakeholders.
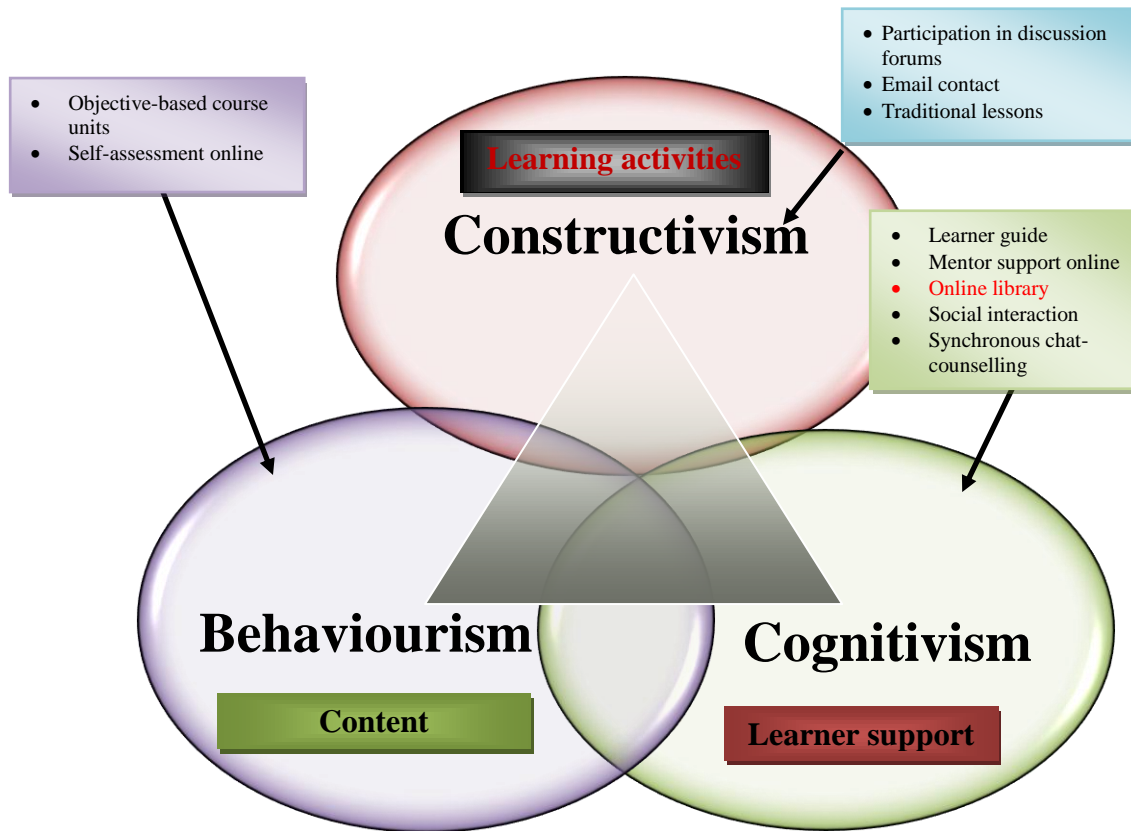
Figure 3.6: Design Framework for Online Learning Environments (Mishra and Jain 2002).

2. Khan's (2003) e-learning model clustered several important factors related to e-learning, as an advanced system for delivering distance learning, into eight broad sections to build a model for e-learning, as illustrated in Figure 3.7. One of these sections, resources support, again emphasises the importance of resources in supporting effective DL. Khan (2003, p.2) claims that: "The resource support dimension of the framework examines the online support (e.g., instructional/counselling support, technical support, career counselling services, other online support services) and resources (i.e. both online and offline) required to foster meaningful learning environments." Hence, Khan suggested that the purpose of this model is to assist e-learning designers to think about each aspect of the e-learning process.

Figure 3.7: Khan's Model for E-learning Adapted from Khan, 2003

3. <u>Hitch and MacBrayne (2003)</u> designed a model for effectively supporting e-learning which is driven by the idea that there is a strong need to support off-campus learners with multiple academic support services, including information services, equal to learners based on-campus. In their model, as illustrated in Figure 3.8, they offer three important elements that have to be considered when supporting e-learning:

   ➢ Strong technological infrastructure;

   ➢ One (unified) access-support system which includes all kinds of support that can be found in a traditional learning environment;

   ➢ Effective faculty and academic development support that can improve and develop the learning method.

   Hitch and MacBrayne (2003) also noted the importance of creating a centralised support facility for learners and faculty in the e-learning environment to provide the most sophisticated, accurate and quality services to e-learning stakeholders, including library and information services. They described the online library services as:

   > Becoming more and more sophisticated, allowing students and faculty to access databases remotely. Some traditional libraries are moving to ensure that students have access to librarians, in real time, 24 hours a day, by establishing a consortium that crosses timelines.

Faculty Support

Training
24/7/365 Technical Support
Curriculum Design
Policies and Procedures
Exam Processes
ADA Services
Electronic Grade book

**Effectively Supporting
E-learning**

Student Support

24/7/365 Technical Support
Library Services
Bookstore
One Stop Services for:
    Admission
    Registration
    Tutoring
    ADA Services
    Advising
    Placement Exams
    Grade Reports
Personal Counselling
    Financial aid
    Orientation
    Career Services
    Community Building

Technological Infrastructure
Single sign-on, e-Commerce, Applications Integration, and Privacy

Figure 3.8: Hitch and MacBrayne's Model for Effectively Supporting E-learning

In their supporting model, they compared the traditional system of delivering library and information services with the technological system, as shown in Table 3.4:

Table 3.4: The Delivery of Library and Information Services in Traditional and Technological Systems

Service	*Traditional Delivery*	*Technological Delivery*
Library and Information	"Students and faculty can access the library during library hours, take out books, and use research databases."	"Access to the library is one that requires a significant technological interface as well as instruction in the use of database and library services from a distance (information literacy). The phenomenon of the "last mile", the delivery and return of actual books, becomes both a policy and an expense."

Hence, adapting this model could help planners to focus more on offering information services at the same level of other services while recognising the right of distance learners to be supported.

4. In their Delphi study, <u>Chin and Kon (2003)</u> provided a very rich model for the key factors involved in fully providing and delivering online e-learning. In their study of students, faculty, support staff and management, they concluded that this model includes the most important elements in delivering e-learning; this includes library and information services, as illustrated in Figure 3.9. This study provides a rich and clear picture of what is required in an e-learning system for it to succeed. They illustrate clearly the importance of offering information resources and services, as well as supporting stakeholders with reliable translation services for foreign resources. This model could serve very well the situation in Saudi Arabia and in other Arab countries where information resources in Arabic are very scarce.
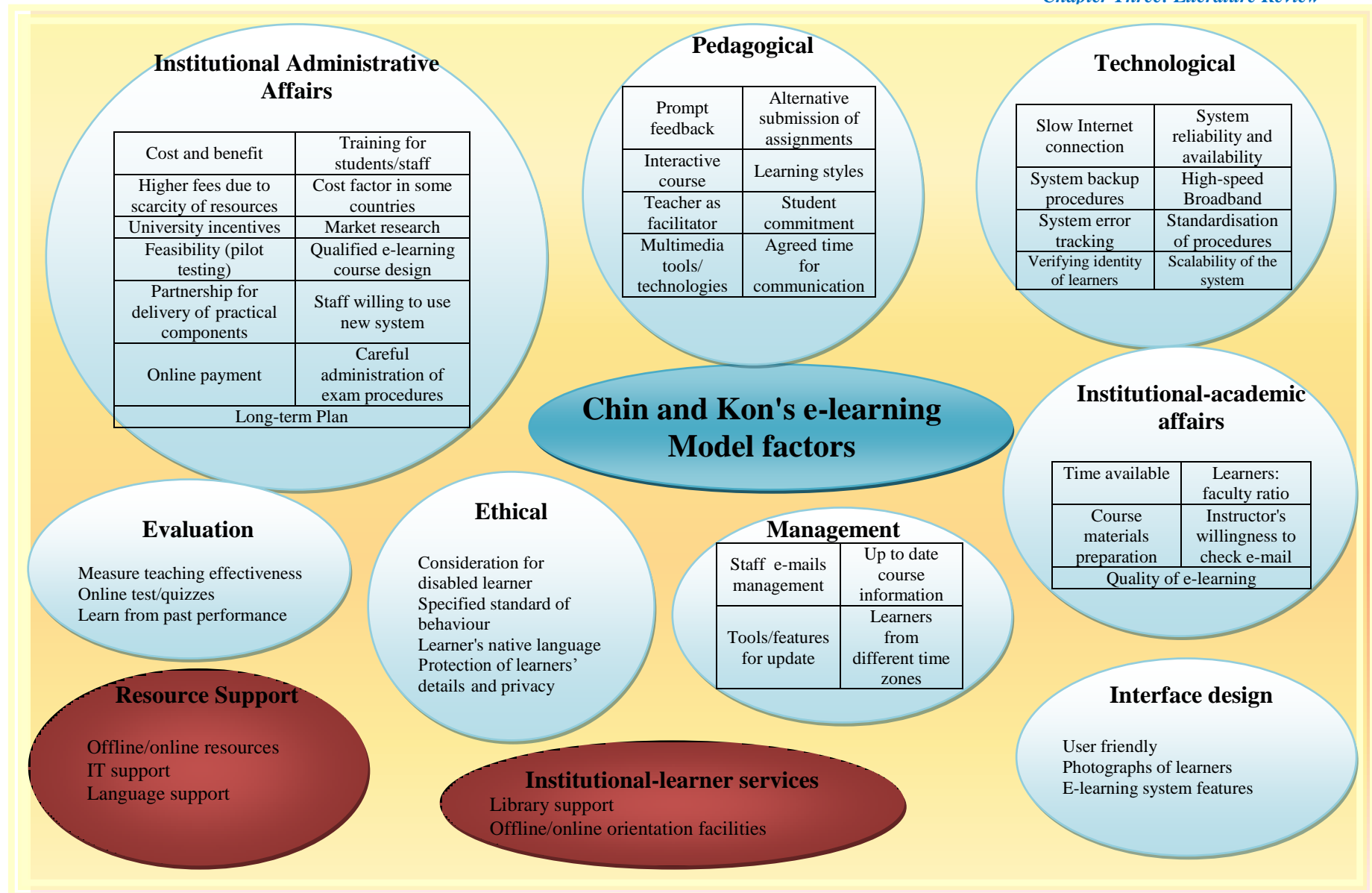
Figure 3.9: Chin and Kon's E-learning Model factors

5. <u>Khan's e-learning P3 model (2004)</u> focuses on the importance of involving people in the whole process of preparing e-learning materials and making them accessible to DL stakeholders. In this model, P3 means people, process and product, as illustrated in Figure 3.10. This model, according to Khan (2004, p.33), "can be used to map a comprehensive picture of e-learning". Khan (2004, p.38) emphasises an important role for library services as "Interactive library services for learners who can ask questions to librarians about their research, both asynchronous and in real time via the Internet." He included library services as learner support which can be prepared and delivered by librarians (Khan 2004, p.40). Again, Khan in this model insists on the importance of information services support and makes it an essential part of any DL model.

Figure 1. E-Learning People–Process–Product Continuum.
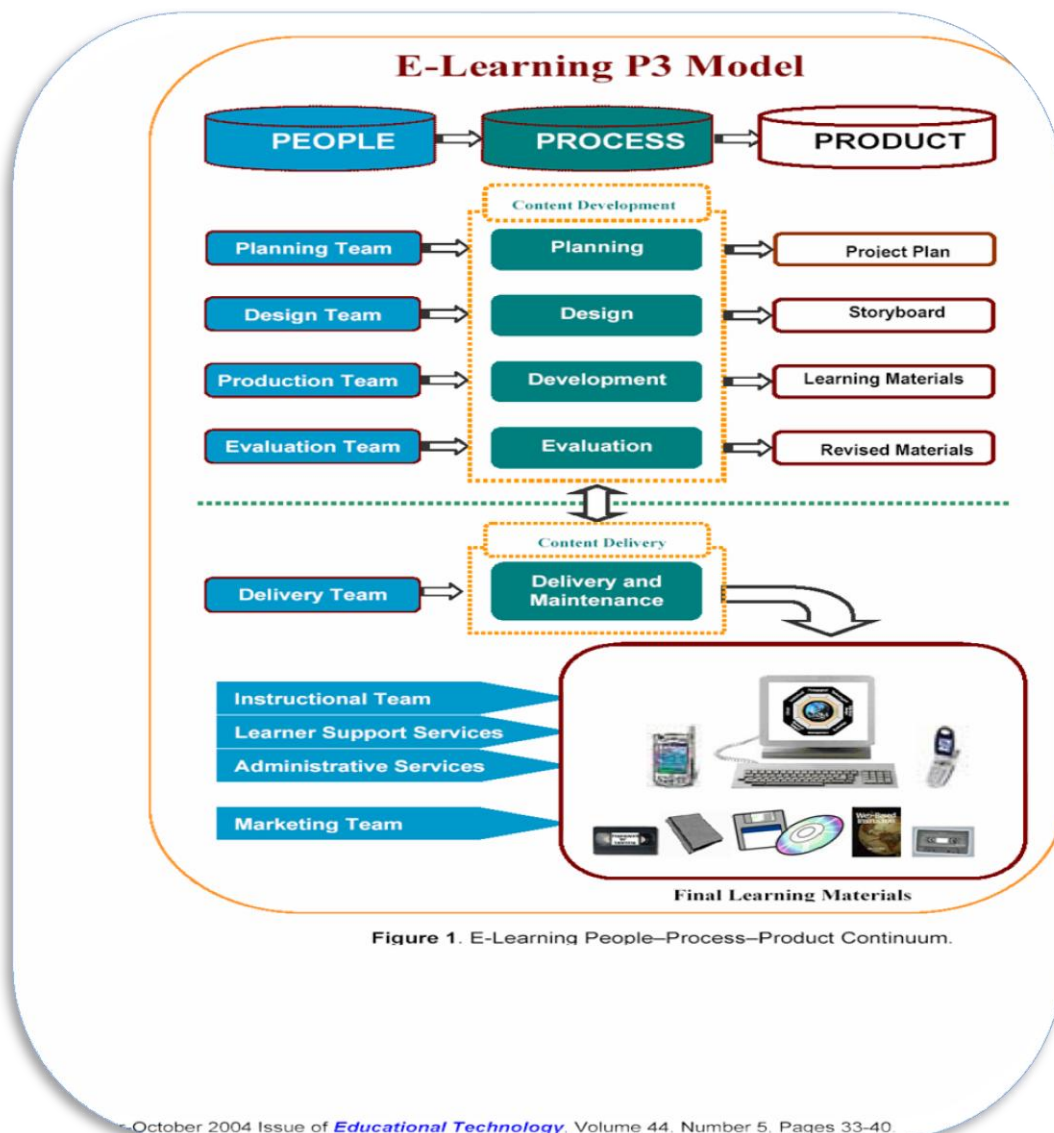
Figure 3.10: E-learning People-Process-Product Continuums, as Illustrated by Khan (2004)

6. Floyd and Casey-Powel (2004) proposed an inclusive student services process model to support distance learners. Their role was to develop student services for users at community college level. Their efforts ended with the creation of a support services model to help community colleges to reconfigure their services support to satisfy distance learners' needs while developing their services support to on-site campus users, especially learners.

Their model, as illustrated in Figure 3.11, consists of five phases: "learner intake, learner intervention, learner support, learner transition and measurement of effectiveness" (p.58).The phase of this model that is most related to this study and which is analysed here is the "Learner Support Phase". This phase includes knowing and learning about library services support: e.g. students can engage in self-development to enhance their own skills, for example, in locating information. It is believed that distance learners expect their library to provide remote access to important services such as full-text databases, e-books, journals and the college library catalogue (OPAC) (p.60). They suggest that using their college's Web sites to offer library services as a direct link is the most effective method. In addition, offering a library tour, e-mailed information services and online tutorials on searching skills (information literacy) would help distance learners to succeed. Furthermore, this model has three advantages, which should be considered as relevant to the current study:

- ➢ It offers support for learners from enrolment until graduation;
- ➢ It emphasises learners' success;
- ➢ It support both on and off campus learners.

In practice, the researchers state that this model: "benefits all students while also demonstrating a college's commitment to the success of distance learners" (p.61). In short, the researchers recommended that:

> The key to implementing successful student support services for distance learners in the twenty-first century is for faculty and staff to pragmatically and systematically redefine traditional student support services to ensure success for all learners. Traditional services such as admissions, advising, registration, financial aid, career services, counselling, and library services must be reframed to incorporate strategies that meet the needs of a technologically oriented student population. This effort requires all campus constituents to work collaboratively toward student success, regardless of the instructional delivery system (Floyd and Casey-Powel 2004, pp.61-62).

In short, there should be no distinction between learners and the support designed for distance learners could be used by other on-campus students.

Learner Intervention Phase
Instruction
Faculty advising
Help desk support
Student success programs

Learner Intake Phase
Goal setting
Admissions, registration
Orientation
Intake assessment and advising
Financial aid
Homepage support

Learner Support Phase
Environmental management
Fostering sense of belonging
Counseling, academic advising
Instructional support, tutoring
Library services
Disability services

Inclusive Student Services Process Model

Measurement Phase
Course effectiveness
Retention and persistence
Graduation rates
Goal achievement

Learner Transition Phase
Goal reassessment
Transfer articulation
Job placement

Figure 3.11: Floyd and Casey-Powel Inclusive Student Services Process Model

7. <u>Thompson and MacDonald (2005)</u> draw attention to the Demand Driven Learning Model (DDLM) which was developed by MacDonald and others in 2001 as a framework for providing and delivering e-learning. It consists of five related dimensions which can enhance the quality of the e-learning experience: structure, content, delivery, service and outcomes. Figure 3.12 highlights the importance of the resources needed to provide qualified learning, including library and information services.
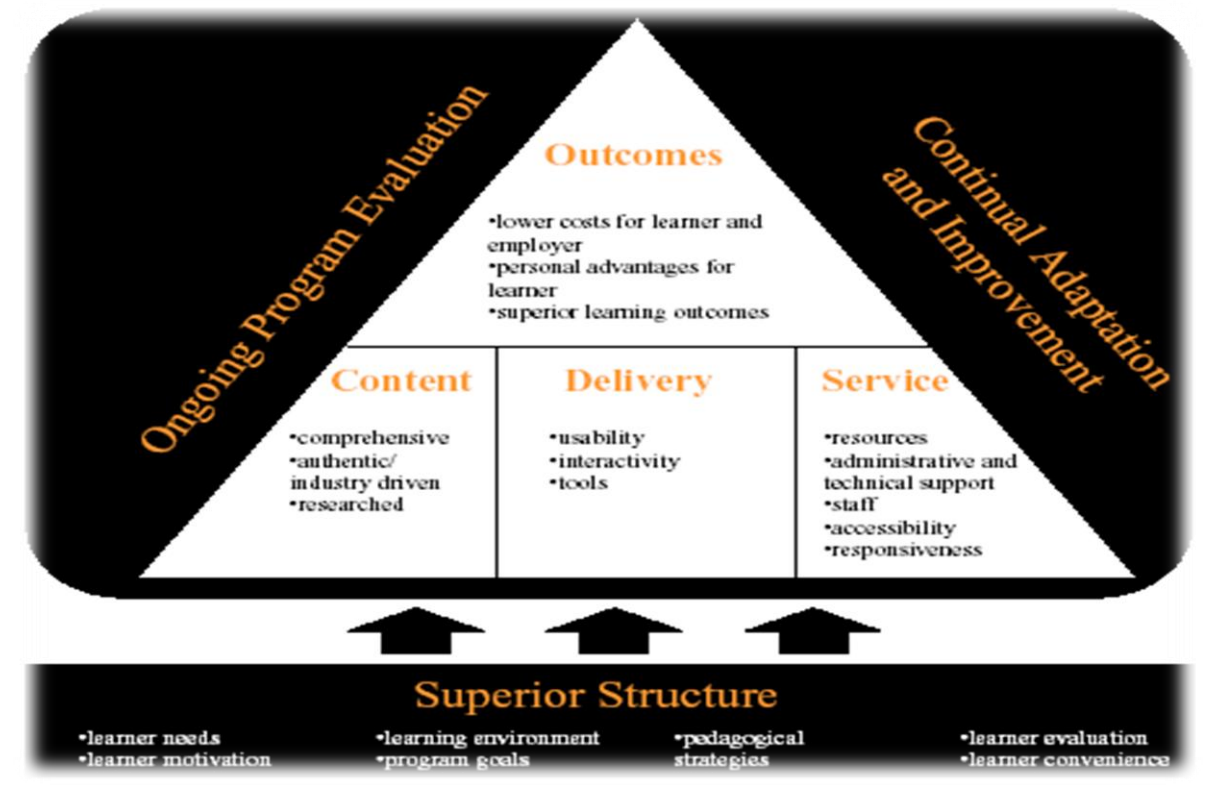
Figure 3.12: The MacDonald *et al.* Demand Driven Learning Model (DDLM), Adapted from Thompson and MacDonald's Study (2005, p.247)

8. <u>Hunter, Clarke and Shoebridge (2005, p.67)</u> studied, as illustrated in Figure 3.13, the importance of developing structures to support e-learning programmes, focusing on the importance of information resources in the whole e-learning support layer by saying: "it will help tutors to embed high quality e-resources into programmes of study. A well designed information resources service should reduce the trend for tutors and students to use less reliable Internet resources." They also encouraged all e-learning stakeholders, especially academics, to help in selecting information resources suitable for learners. They concluded by suggesting: "the better the quality of the resources that are available to academics, the more successful the integration with the Virtual Learning Environment (VLE) will be. Failing to make e-learning resources available with the VLE may create unnecessary barriers to learning and could undermine the effectiveness of the overall service" (p.68). This model highlights two important factors which can enhance the quality of distance learning. First, DL stakeholders should and must use reliable resources and this cannot be achieved unless a dynamic information service and useful (or high-quality) resources are available. The second issue is the importance of making resources available and easily accessible; this must be an important component of any distance learning model.
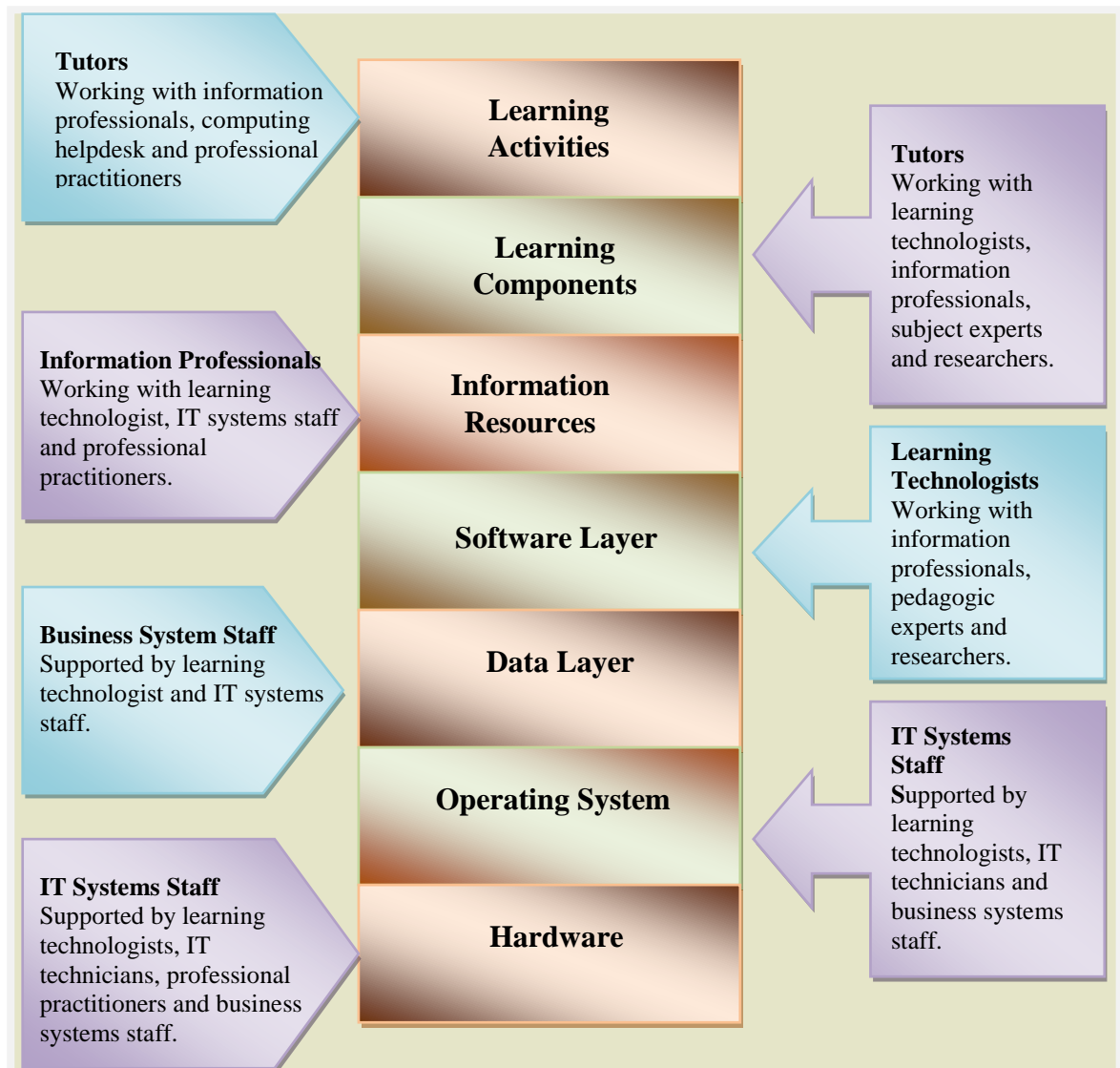
Figure 3.13: Hunter; Clarke and Shoebridge's Support Layers of an E-learning Service (2005, p.67)

9. The Middleton (2006) model emphasises the importance of the integration of library and information services in remote education. Middleton (2006, p.3) stated that the "Provision of library services for DL students is a mature practice." Hence, he builds a framework for the services that libraries should provide to support DL. This framework is illustrated in Figure 3.14. This model, as stated by Middleton, is intended to: "… provide a starting point for libraries that seek to immerse themselves within the challenging framework of remote education" (p.18). It seems that this model is completely dedicated toward raising the awareness of libraries' information services and resources in supporting DL. This model could inspire other DL models to set up the necessary information services and hence provides a roadmap to facilitate the processes of offering library services in DL.

Information strategy
- Differentiation (Equity between on- and off-campus users).
- Contextualisation (engaging students with respect to their disciplinary material such as IL)
- Resource provision strategy (acquisition policy and resources evaluation in relation to DL
- Training (design framework for training of DL users.

Information organisation
- OPACs (link to all library resources related to DL courses)
- Description of resources (metadata standards)

Collaboration
- Course development (library should foster relationships between disciplinary areas, as well as with course developers)
- Resource provision (advice for course developers so that specific e-books, e-prints, or learning objects may be considered for course development)
- Technical collaboration (help DL users to access to remote learning support)

Information architecture
- Content management and publishing (Library Web sites)
- Discovery mechanisms (librarienes enable searching of multiple databases and open resources)
- Integration of resources (access to electronic books, film reservation, document delivery systems and reserve collections)

Learning process support
- Assistance with the tools of learning processes such as provision of information management tools

Resource support and delivery
- Packaging resources (traditional, online , or both according to learners needs and desires)
- User assistance (links to all material that is available online)
- Rights management (knowledge of licensing, intellectual property and digital rights management)
- Resource avenues (provide guided avenues to other independent services, for example: bookshops and sound, video or media resources)

Communication
- Current awareness
- Reference services

Information literacy
- Online IL
- Face-to-face IL

Preservation
- Digitising library collection for easy accesses

Figure 3.14: The Middleton (2006) Model for the Integration of Library and Information Services in Remote Education

10. The Taha model (2007). In his description of his model's elements, Taha states that e-learning is becoming a fact and the e-library should be an important element of this kind of education. He created a model that combines e-learning and the e-library under the term "e-learning and e-library services (the ELLS model)". He described it as the "[…] interplay between the two domains (e-learning and e-library) for providing instructors with systematic assistance in identifying relevant networked e-information resources and services in support of their distributed learning projects." Figure 3.15 illustrates in detail the model's functions, relations and integration of e-learning and the e-library. Taha provides a full description of each entity function as follows:

E-library functions, which should include

- Hyperlink the e-courses with the library e-reference resources such as e-books and e-journals as well as with the web-based open-access resources;
- Virtual reference desk (VRD) help and e-mail enquiry service (expert librarian);
- Designing an integrated web portal to provide friendly access, a library, scholarly e-resources with efficient browsing and research abilities;
- e-literacy programmes to develop e-learning information search skills;
- Acquisition of core e-collections specifically recommended by the e-learning initiative;
- Promotion of library e-services to the virtual e-learning community; and
- Prompt document delivery and outreach services via electronic transmission (Taha 2007).

E-learning institution functions, which include

- Development of innovative, web-based e-courses using multimedia effects and simulation;
- Integration of a variety of recommended core e-learning reference readings with the digital resources of the e-library;
- Digitisation of textbooks and other learning resources to create usable learning objects;
- Possible permanent updating of e-course contents.

However, he concluded that there are insufficient librarians who can become part of the ELLS model. Moreover, gaps in computer and web knowledge could limit the model's full implementation and reduce its benefits. Nevertheless, this model fully acknowledges the importance of integration between DL programmes and libraries and presents them as two important entities which should be linked to each other.
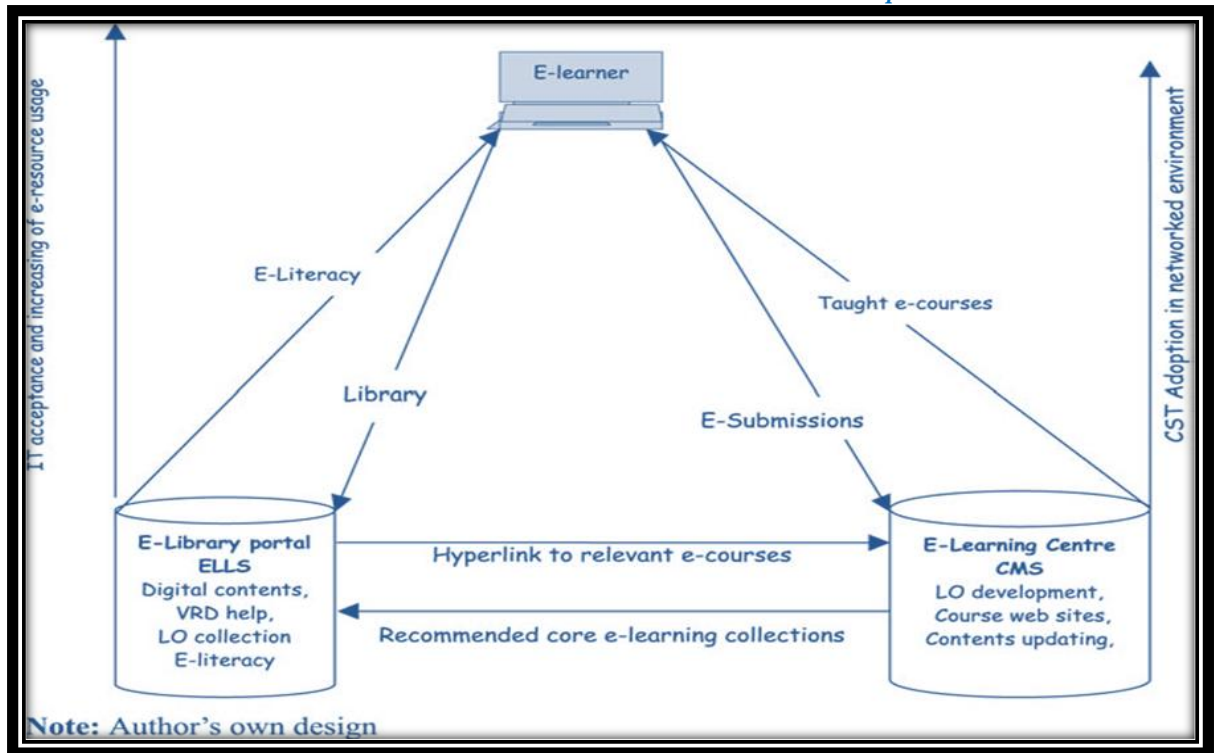
Figure 3.15: A Model Depicting the E-learning Library Services in an Academic Computing Environment Designed According to the Taha Model, 2007

11. <u>Panda and Swain (2009)</u> designed a model for success factors in e-learning implementation which emphasises the importance of the e-library in solving some of the e-learning challenges. They agree with Lippincot (2002), cited in Panda and Swain (2009), who claimed that:

> One of the natural responses to the challenges of [the] e-learning environment is the introduction of the digital library to support e-learning with [a] resources network, designed to meet the needs of the learners, in both individual and collaborative settings, constructed to enable the dynamic use of a broad array of materials for learning primarily in digital format, and managed actively to promote reliable access anytime and anywhere to quality collections and services, available both within and outside the network.

They stress the importance of the e-library as a tool to support DL by saying: "[…] for an ideal e-learning situation, digital libraries are regarded as the hub of the library collections and services that function together in the real e-learning environment." They also agree with Sharifabadi (2006, p.396) that libraries should play a modern role by being a:

> […] facilitator by offering ongoing support, enabling learners to interact and exchange knowledge with others, to communicate directly with the publishers and vendors of information resources, and to participate in a collaborative endeavour to make available rich collections of online scholarly information resources.

In their model's description they emphasise the importance of strong institutional support for the survival of e-learning and stress the importance of building strategies, policies and standards in supporting e-learning related to the library and information provision. Hence,

their academic e-model acknowledges the importance of information and academic support in the life of DL and e-learning, as illustrated in Figure 3.16. This model could help library planners, as mentioned above in Taha's model, to set the services that should be provided. The components of this model seem to be practical and easy to design, especially with the increasing use of ICT including the Internet.

Figure 3.16: Panda and Swain's Academic E-learning Model (2009)

Summarising these models, it can be concluded that several factors and elements should be addressed in delivering DL; these should include library and information resources and services which are very important in supporting and delivering quality learning and teaching. The provision of reliable information resources, equity in supporting distance learners, and easy access to a range of quality information services and resources are common to all the models. As each model for DL consists of different elements, it is suggested that studying each element in isolation is inappropriate in determining which factors influence and affect the success of e-learning (Papp 2000, cited in Masoumi 2005, p.5). This study focuses on only one factor: library and information services support and its role in supporting and improving the quality of DL and its forms, as it has been discovered that this focus is lacking in the review of the Saudi literature and the analysis of documents related to Saudi DL. This approach was adopted due to the lack of time and resources to study the whole system of DL in Saudi higher education.

3.9 Academic Libraries and Distance Learning

As outlined in the models above, effective distance learning entails the provision of parallel academic and non-academic support, such as academic library services, to these learners, as well as to students taking courses on-site. As Hall (1998, p.66), for example, noted, information services are an essential part of the educational process. He also stated that: "this view is supported by the Open University (OU) in its student handbook, which states that using libraries is an essential part of education […]".

The old structural model of providing DL, as briefly mentioned above, is described by Simpson (2002, p.5); this is based on the equation below (Figure 3.17):

Student	+	Teaching materials	=	Successful student

Figure 3.17: Old Structural Model of Providing DL

This model is commonly used in the developing countries such as Saudi Arabia. These days, however, many higher education institutes in the world are applying a new structural model which is more commonly used by HE institutes providing DL. This model, as described by Simpson (2002, p.5), is as below (Figure 3.18):

Student	+ +	Teaching Materials	+ +	Student support	= =	Successful Student

Figure 3.18: New Structural Model of Providing DL

This student support can be described in several ways, according to the researcher's interests. In this study, academic library services constitute one important part of supporting DL. In fact, supplying distance learners with various kinds of information services which may support their learning is crucial for the success of such programmes. For instance, York (1993), cited in Edge and Edge (1998, p.19), stated that: "Library services are not just another support service; they are a necessary component of any educational experience and an integral part of a lifelong learning process."

In addition, providing users with information services is an important task for any library. As a result, the library's role should be not only to acquire and store information, but also to organise its resources and make them available to and easily accessible by its users through the provision of well-established information services that meet users' requirements, including those of DL users. The users' requirements usually involve achieving a goal from

their study such as preparing for exams, doing some assignments and getting help in doing research. These requirements can be achieved through the librarians' understanding of their remote users by:

1. Knowing their equipment, tools and their ability in using resources remotely,
2. Knowing their methods of finding quality information resources,
3. Knowing they are providing them with the best resources that can satisfy their needs,
4. Knowing that distance learners are learning from the way that access to information is organised,
5. Knowing which learners' expectations have not been achieved,
6. Knowing that the entire organisational schemes for providing information services are suitable for them,
7. Making sure that guidelines, instructions, information literacy and online help are effective (Curtis 2002, pp.26-27).

Barsun (2002, p.59) insisted that: "institutions that offer DL courses are responsible for providing commensurate library services and resources." These services can be one or all of the following:

- Subject searches,
- Photocopies of articles or book chapters,
- Book loans,
- Access to e-resources,
- Information literacy…etc. (McKnight 1998, pp.55-56).

A strategic plan and policies can provide library staff with guidelines regarding how to run the library and how to serve all its users. Setting policies and guidelines should give the library and its staff the commitment to support DL. McLoughlin and Wilson (2006, p.75), in their study regarding the accessibility of resources in helping the DL lifecycle, considered a strategy document to be a "crucial document"; they also mentioned that a senior manager was chairing a new group which was required to develop a strategy for off-campus support covering all areas regarding the implementation of the service, as well as improving other services. This group offered a forum for developing, implementing and planning strategic development for off-campus provision, the aims of which were as follows:

- To ensure quality, consistency and additional development in all current activities to meet users' needs;
- To ensure equity among all learners in receiving learning support and other services;

- To standardise the implementation and development of support and access to resources including information literacy and independent study skills;
- To ensure that all learners at a distance from the campus were fully supported in using resources;
- To raise awareness among departments regarding the support that off-campus learners need;
- To collaborate with other organisations in a way that could improve and develop the current support;
- To ensure further development and support, synchronous with the development of the curriculum and in line with users' needs (McLoughlin and Wilson 2006, p.75).

Moreover, York (1993), cited in Edge and Edge (1998, p.19), asserted that: "as distance education degree programs continue to grow and are influenced by technology, planning is essential to meet the information needs of students enrolled in these programs." In addition, at the end of their study, McLoughlin and Wilson (2006, p.80) described the landscape of the development of services and the support that off-campus learners should have by saying:

> There are now, though, clear frameworks, documents, and monitoring and evaluation built into the development of provision for off-campus students, with clear structures and responsibilities outlined.

3.9.1 The Role of the Academic Librarian in Supporting DL

As mentioned above, the advances in information technology as well as the increasing number of librarians who are more focused and knowledgeable regarding computer and communication technologies are two very important factors in the successful provision of information services for on- and off-campus learners. Barton and Blagden (1998, p.25-26) asserted that:

> Information services are a key element in the role of the academic library. The current trend towards independent learning, together with developments in e-information provision, requires high levels of information literacy among library users. This has placed greater demands than ever on information services.

Moreover, academic libraries and their institutes, which are involved in providing distance learning, have to re-engineer the position of both their staff and their information services. The skills and competencies of librarians need to be shifted toward improving their knowledge of controlling new technologies and toward achieving a better understanding of the skills and difficulties that learners have (Debowski 2003, pp.2626-27).

Beside the previously noted functions of an academic librarian and libraries in allowing users to benefit fully from resources, there are certain modern functionalities in an academic library carried out by librarians that can support DL. Hahn (n.d) pointed out the following four areas, recently supported by Midgley (2009)**:**

1. Online services: An online reference librarian provides online reference services and online document delivery, and maintains files on electronic reserves;

2. Networking: A networking and computing coordinator or e-resources librarian manages Local Area Networks (intranets), multi-campus networks, regional or consortia networks, and Internet servers.

3. Information technology: A technical librarian creates, applies and maintains websites, gopher sites and other information technology sources;

4. Digitisation: A digital librarian digitises all kinds of materials according to the copyright law and allows electronic access to special library collections.

Kühne (n.d., pp.9-10), like Campbell (2006, p.4), also stated that academic librarians need to perform the following tasks in order to give academic library users, especially those participating in DL, the service they deserve by:

1. Being a facilities provider: for instance, giving easy access to the AL and its resources and equipment;

2. Being a tutor and guide for ordinary learners and helping them overcome any obstacles they face in searching the library collection;

3. Being a specialist and support at critical moments and in a number of situations and for different pedagogical work; having a perspective on education and lifelong learning and research work at all levels;

4. Giving special advice and guidance to learners with special needs, such as special needs students and learners with insufficient basic knowledge;

5. Providing active support for all kinds of literature and information-seeking, either in printed materials or in electronic media;

6. Having a sound knowledge of security and copyright law issues;

7. Having a sound knowledge of new educational principles and teaching methods, such as Problem-based Learning, and how these principles can affect the nature of professional work in libraries;

8. Having a sound knowledge of the special pedagogy that is needed for adult learners;

9. Being a resource person when new methods for distance and flexible learning have to be applied or developed;

10. Acting as a marketer in order to market all materials that can be found on the Internet about DL courses, not only to ordinary library visitors, but also to others such as non-official visitors in the neighbourhood;

11. Working as an instructor and information provider at the same time to learners, instructors and researchers;

12. Evaluating oneself regularly, analysing the needs of different users and learners, and giving feedback results to those concerned; important and quick improvements can then be carried out immediately and continually;

13. Ideally, becoming a full member of the teaching group, as well as of different project groups, so that the important role of the AL can be emphasised wherever possible.

In summary, the academic librarian of the future will move from being just an information expert to being an active partner in educational work, as shown in Figure 3.19 (Kühne n.d., p.10).

Figure 3.19: The New Role of the Librarian in the Information and Lifelong Learning Society

The academic library and its staff can support distance learners, as Hahn (n.d.) suggested, in several ways, one of the most important being the building the necessary cooperation between different departments or sections in higher education institutes:

1. The administration of DL courses can be implemented with the cooperation of top levels of management in the HE institution and the library;

2. The library's facilities, and its networking and computing staff, are well suited to helping to create virtual classrooms, and also to manage either the synchronous or asynchronous communications used in DL.

In short, there is no doubt of the role of the academic librarian and the benefits of AL services for the whole academic community, including distance learners. Librarians have to be engaged in planning and running information services for both on- and off-campus users and should build the necessary cooperation with other departments to make this a reality. They have also to be willing to support and provide qualified services to all users according to guidelines and standards. So, good information services combined with good teaching, can produce qualified learners either on- or off-campus.

3.9.2 Obstacles Facing Academic Libraries in Supporting DL

Heery (1996, p.10) stated that: "one of the greatest challenges facing academic librarians is that of providing library services to the growing numbers of distance learners. These are students who, like Open University (OU) students, very rarely, if ever, visit their college or university." The danger is that the quality of the information services which are provided to distance learners could be questionable and could harm the whole service resulting in no real services being given to distance learners. However, providing successful information services to distance learners cannot be achieved without overcoming several obstacles. According to Hall (1998, p.69), these obstacles are as follows:

➢ Conservative attitudes in academic institutes from those who are afraid or will not accept the idea of delivering new HE programmes without a well-stocked library;

➢ The old fashioned thinking of old students who return to education that prevents them from using new technologies (computer-phobia);

➢ Conventional approaches used by librarians when they are only willing to engage in helping, usually young, learners who are only on-campus, and full-time learners;

➢ Difficulties in setting up library collaboration, especially between old and new universities, or higher and further education institutes;

➢ Concerns about the cost to the parent institution of providing information services.

Furthermore, Cho and Berge (2002) investigated several issues regarding the barriers that face the distance training and education sector; they outlined the importance of support for distance learners and included several factors, among which were library services. They described these factors, including library services, as "a critical facet of any DL program" and suggested that a lack of access to libraries is one of the barriers that need to be overcome.

In addition, Ault (2002, p.46-47) investigated the barriers that can prevent the DL community from accessing and using information services. He decided that, in reality, serving the DL community and providing it with all the information services available to on-campus learners cannot be guaranteed because of several barriers that should be considered when developing information services:

➢ Geographic barriers: distance learners from rural areas or from foreign countries cannot be guaranteed the same services as other learners because some countries and rural areas experience technical problems such as poor ICT infrastructures and slow access to the Internet, as discovered in relation to the Saudi context in Chapter 2;

➢ Technological barriers: Many barriers refer to weaknesses in Internet connections which can be frustrating when downloading and uploading;

➢ Budgetary and staffing restraints: Library services to the DL can be expensive because they involve reengineering the current library services and readjusting them to be used by learners both on- and off-campus (Ault 2002, pp.46-47).

The above challenges require a great deal of financial resources to purchase new software and hardware and to hire and train librarians in using them; this may not be feasible for some libraries. In fact, distance learners may face other obstacles that can prevent them from gaining access to the information services during their studies. Some of these obstacles have been noted by several scholars and are as follows:

➢ Their institution may not offer a library service; they may face delays and expense in contacting the library or there are so many barriers that students give up trying to use it;
➢ Their library expectations are often low;
➢ They lack information literacy skills; they frequently do not know or do not find out what services and resources are available or how to access them;
➢ They frequently possess inadequate knowledge and experience in library research, electronic informational resources, and technology in general;
➢ They may never come on-campus so that they rarely receive information literacy training and are unable to use in-person assistance from librarians (Sacchanand 2002, pp.2-3).

Analysing documents related to the Saudi context, some of the above obstacles are applicable. Hence, these obstacles, as well as others, have been investigated in this study.

3.9.3 Information Service Guidelines for DL

McDonald (2002, p.5) studied the development of the provision of successful information services to the DL community and observed that: "Library managers should consider a variety of factors when developing successful distance learner services. These relate to providers, users, library staff, legal issues and partnership working." He also mentioned that guidelines, which are available in the literature regarding providing information services to distance learners, are recognised in the United States and in India. He argued that, while these two countries have taken the lead in this area, not many countries have decided to issue such guidelines (McDonald 2002, p.5). Therefore, some of the most important guidelines discovered by this study are presented later in this section. These guidelines insist that the same level of information services is provided to on-campus students as to distance learners. For instance, the ACRL (2008) guidelines for library services for DL defined these services as:

> Those library services in support of college, university, or other post-secondary courses and programs offered away from a main campus, or in the absence of a traditional campus, and regardless of where credit is given […]. The phrase is inclusive of courses in all post-secondary programs designated as: extension, extended, off-campus, extended campus, distance, distributed, open, flexible, franchising, virtual, synchronous, or asynchronous.

The information services, together with other forms of support, are those that distance learners need to access and thus need to be considered as the key success factors in any DL. Gellman-Danley and Fetzner (1998) agreed that support services, including library and information services, are central to the success of any kind of DL. They emphasised the importance of several issues in writing policies regarding providing DL and said that: "institutions need to develop DL policies on student advisement, counselling, the library, marketing, materials delivery, textbooks, training and proctoring."

Hence, part of examining the library and information services provided to distance learners, is to look at some of the most important policies, standards and guidelines published on the topic. The most useful guidelines are those issued by the Association of College and Research Libraries (ACRL 2008), a division of the American Library Association. These guidelines describe in detail all the standards and guidelines that academic libraries should follow in order to meet the needs of DL programme members; they outline several philosophies that can be used as a solid base in the provision of information services to the DL community.

Other important guidelines regarding providing information services to distant learning programmes are those issued by the Canadian Library Association (2000). These guidelines regarding library support for DL in Canada were first issued in 1993 and revised in 2000.

They describe in detail several important issues regarding the philosophy and services that should be provided to DL programmes and also outline several important information services that libraries have to provide to the distance community. These services are as important to instructors and learners in DL as they are to the on-campus community. The most important services have been included in these guidelines and any library providing DL should include them (Canadian Library Association 2000).

In addition, the Council of Australian University Librarians (CAUL) issued some principles in 2004 for library services offered to off-campus students to support teaching and learning; these were revised in March 2007. These guidelines were developed and issued as a tool for all Australian university librarians involved in providing information services to learners off-campus and such guidelines could be similar for the services provided to on-campus learners. In short, these guidelines stated that: "The Library should ensure access to adequate levels of service and information resources for offshore students and the academic staff teaching them" (CAUL 2007, p.3).

In another part of the world, the Indian Library Association issued guidelines for the library services to distance learners; these were approved by the Council of the Indian Library Association on the 28th of July, 2001. One of the most important aspects of the philosophy of these guidelines is: "Access to library resources is essential for quality education regardless of where the learner and programmes are located" (Sectional Committee on Distance Education 2001, p.3).

By analysing these guidelines and investigating their philosophy behind providing library and information services to DL programmes, the researcher came up with the most common factors that should be provided to distance learners and how they have been acknowledged by the previous guidelines, as illustrated in Table 3.5 below:

Table 3.5: Philosophies and Guidelines in Providing Information Services to DL According to the Most Well Known Guidelines/Standards in the World

No	Factors	Association of College and Research Libraries (ACRL)	The Canadian Library Association	The Council of Australian University Librarians (CAUL)	The Indian Library Association
1	Access to an adequate range of library services and resources is essential for distance stakeholders and should be ensured.	√	√	√	√
2	Information literacy in academic libraries is a primary service in DL.	√	X	√	X
3	Information services for DL programmes have to be planned and separately funded in order to deliver equivalent library services and maintain the quality of teaching, learning and searching by distance.	√	√	√	√
4	Institutes providing DL have the responsibility in supporting learning, teaching and searching at distance by providing information services.	√	√	X	X
5	Traditional library services designed for on-campus users cannot meet off-campus users' needs.	√	√	X	√
6	Library and information services provided to DL have to meet the national and regional accreditation standards and professional association standards and guidelines.	√	X	X	X
7	An academic library has to be part of planning, developing, evaluating and changing a DL program.	√	√	X	√
8	An academic library should have the primary responsibility for providing useful resources that can meet users' needs.	√	√	X	X
9	Off-campus users need more personalized services than those on-campuses.	X	√	X	X
10	Licence agreements for accessing electronic information resources should include all DL stakeholders.	X	X	√	X

√ **Mentioned**

X **Not mentioned**

In short, some of the most important services that distance learners expect to have, and which have been extracted from the above guidelines, are as follows:

➢ The provision of well-designed information literacy programmes to all distance learners on site and online;

➢ The provision of web access to the library OPAC and other databases 24 hours a day, 7 days a week;

➢ The provision of inter-library loan for books, documents and articles;

➢ The provision of a reference service by using multi-methods such as online, telephone, mail, fax, e-mail etc.;

➢ The digitisation of some of the most important library materials, making them available for learners according to copyright laws;

➢ Improvements in cooperation with other libraries in order to allow distance learners to use their resources;

➢ Support for DL programmes with library materials that can be acquired from publishers and other resources;

➢ Help for distance instructors to choose and acquire useful resources, making them available for use by distance learners;

➢ The issue of ID cards for distance learners that can be used to access other libraries;

➢ The provision of at least one reference librarian who is in charge of helping only distance learners.

In addition to the above guidelines, several researchers have discussed some of the information services that should be presented and delivered to distance learners in many institutes and which can help in setting the necessary guidelines within any HE institute offering DL. Among these are Edge and Edge (1998, pp.16-24) who studied the University of Louisville's DL programme as a case study. They outlined some important guidelines in offering information services that distance learners should have and mentioned the following:

➢ Information literacy: Succeeding in learning depends on learners' ability to find and analyse information. So, the ultimate goal of the University of Louisville's library is to increase the ability of learners to find information to support their current study and for their lifelong learning. The university library has used several tools to provide this service:

1. One-on-one consultation,
2. Printed handouts,
3. Toll-free phone assistance,

4. Instructions illustrated by video,

5. Televised instruction via satellite,

6. Live televised instruction via video-conferencing,

7. Referral to the Internet service providers,

8. Through the DL programme web-site,

9. Tutorials on web use and library research on the web page.

➢ Reference Services: These aim to provide guidance for distance learners in identifying resources on their topics and involves several methods for helping distance learners, as follows:

1. Access to databases and online catalogues in other libraries,

2. The use of databases by learners themselves by providing them with computer access,

3. Access to a standby librarian *via* a toll-free telephone for consultation on research strategies.

➢ Document delivery services: The goal of the library is to allow distance learners to retrieve full-text materials online, but when these are not available, the library has to obtain them from elsewhere and deliver them to the learners (Edge and Edge 1998, pp.16-24).

In conclusion, it is very useful for HE institutes that are planning to provide DL to consider these guidelines and maintain the importance of including library and information services as part of their DL programme. Referring to the previous guidelines and analysing them may help existing and new HE institutes to improve or implement and engage the AL and its services within any DL programme, making the library and its services a very important part of it.

3.10 Summary

After a review of the significant literature in relation to the aims and objectives of the study, it can be said that:

- DL has developed rapidly and has been affected by all levels of technologies;
- e-learning is considered as the most advanced mode of delivering DL;
- Higher education in SA is facing several challenges which can be solved by improving and developing the current DL;

- Higher education programmes, including DL, need high-quality information services;

- There is a shortage of studies that have addressed the importance of information services and resources in supporting DL;

- DL and e-learning models that have been examined rarely explain in detail the processes and guidelines for providing information services;

- Many universities in many countries, especially developed countries, have set various guidelines and rules to support DL with resources and information services which should be considered;

- DL in SA has been implemented for more than 40 years with no clear information about the role of academic libraries and other information services in supporting this kind of education;

- Academic libraries in SA are facing several problems and have failed to provide special information services for DL;

- Not many focused studies related to the subject of this study have been carried out in SA or in the GCC countries.

Chapter Four
Research Methodology

4.1 Introduction

The purpose of this chapter is to review the research aims, objectives and questions of this study, which were set out in Chapter 1, in order to consider which of various methodologies were most appropriate for collecting the data in this research. In addition, this chapter includes the research design and includes a discussion of the sample, the instruments, the data collection and the data analysis methods.

4.2 Research Aims, Objectives and Questions

This study attempts to investigate the role of academic libraries in supporting DL in Saudi Arabia's HE sector. It expects to offer suggestions for the MHE, the universities and their academic libraries for providing effective and useful information services to distance learners that are at least equal to those provided to on-campus students. The nature of this research, as no previous comprehensive study has been carried out on this topic in Saudi Arabia, requires both qualitative and quantitative approaches to be used in order to collect the in-depth data and information required."The combination of qualitative and quantitative methods can deepen the understanding of processes, attitudes, and motives" (Stenius *et al.* 2008, p.82). Moore (2006, p. 141) described the application of both research strategies as follows:

> Quantitative research aims to show you what is happening. Qualitative research, on the other hand, sets out to tell you why it is happening. It is all about developing understanding of individuals' views, attitudes and behavior.

The quantitative analysis is based on DL stakeholders' responses to questionnaires. Male and female faculty members concerned with DL, together with distance learners at the chosen universities, formed the population that was examined quantitatively. These stakeholders were able to provide valuable data about the existing condition and role of libraries, and the information services for DL. However, in order to build up a deeper understanding of all the factors, DL stakeholders, as well as others related directly or indirectly to DL, were also interviewed. These other stakeholders included administrators of the academic libraries, the deputy minister of HE, computer centre managers and the senior advisor and project manager of the National Centre for e-learning and DL in the MHE in Saudi Arabia. Qualitative data were acquired from these stakeholders through semi-structured interviews, details of which are explained below.

More specifically, this study was also designed to determine the perceptions of DL programme stakeholders (instructors and learners), library administrators, ICT managers and

others who are involved in administering, delivering and developing this kind of education system in terms of the role of academic libraries in supporting DL in Saudi HE. This included identifying the current role of academic libraries and the significant factors that facilitate their general use in supporting DL. Hence, the study identifies some current and expected barriers that may have limited, or prevented, the implementation of academic library services in supporting DL. It also identifies factors that DL stakeholders believed would assist them in dealing with the current or future services provided by academic libraries for DL programmes.

This study aims to provide solutions that will support DL programmes in Saudi HE and so the output of this study is expected to be important in improving the current DL system in S.A. Thus, the elements explored in the research include:

1. The current and future roles and policies of academic libraries in supporting DL programmes in Saudi HE;
2. The factors that prevent academic libraries from supporting DL programmes;
3. The solutions that could help break down barriers that hinder support for DL programmes;
4. Information literacy intervention by information services and academic libraries;
5. DL stakeholders' attitudes to and expectations of academic libraries and their information services in supporting their needs;
6. Solutions, methods and models that could be appropriate to help support DL programmes with the information services needed.

4.3 Research Approach

The aim of this research was to investigate the current situation regarding the role of academic libraries in supporting DL programmes in Saudi HE, and included understanding the DL stakeholders' perceptions of academic libraries and, in particular, the role of academic libraries in supporting them. Crotty (2005, p.2) noted that, in any research, there are four important elements that need to be considered. These are illustrated and explained below (see Figure 4.1).

Figure 4.1: Main Elements in Conducting Research (Crotty 2005, p.4).

4.3.1 Epistemology

Crotty (2005, p.3) identified epistemology as: "the theory of knowledge embedded in the theoretical perspective and thereby in the methodology ... [a] method of understanding and knowing what we know." It also can be identified as "the study and understanding of knowledge" (Wallace 2009, p.94). Myers (1997) also referred to epistemology as the assumptions about knowledge and the ways it can be gained while Walliman (2006, p.15) stated that epistemology addresses how we know things and what we can consider as "acceptable knowledge in a discipline". In addition, Driscoll (cited in Siemens 2006, p.17) asserted that epistemology is usually concerned with "the nature of knowledge and how we come to know things". In short, it can be stated that epistemology is "a branch of philosophy concerned with the theory of knowledge. It attempts to provide answers to the questions: 'How, What, and Can we know?' (Willig 2001, p.2).

However, although epistemology deals with our interpretation of what we know, different researchers have different views about methods or methodologies for acquiring this knowledge. For instance, a researcher conducting qualitative research, as in this study, will try to use his/her experience to investigate the phenomenon in full detail, but a researcher using a quantitative approach (as also in this study) may believe that knowledge only represents the type of knowledge that can be observed and measured (post-positivism) (Sun 2006, p.91). Guba and Lincoln (1994), cited in Myers (1997), suggested four paradigms for research: positivism, post-positivism, critical theory and constructivism. However, Orlikowski and Baroudi (1991), also cited in Myers (1997), suggested three research epistemologies: positivist, interpretive and critical.

In order to explain this research approach, brief definitions of some paradigms are offered below, together with their relation to this research.

- Positivist research looks at scientific knowledge as absolute knowledge which can be gained independently from the researcher. It usually involves testing a theory as a way of understanding a situation (Myers 1997). However, this was not applicable here because this study is exploratory and deals with social science phenomena; besides, there were no theories to be tested. Ryan (2006, p.14) stated:

  > [...] the idea that the only way to do social research is to follow a scientific model can lead to the dismissal of research as a valuable tool in understanding the rich complexity of social life. This scientific approach which positivism espouses is rightly thought to be inadequate when it comes to learning about how people live, how they view the world, how they cope with it, how they change it, and so on.

Post-positivist research, as described by Robson (2002, p.27), states that the researcher believes that "reality does exist, but [considers] that it can be known only imperfectly and probabilistically because of the researcher's limitations." In addition, Walliman (2006, p.23) described this approach as one which "looks at society as the focus for research, and through understanding its internal laws and establishing relevant facts, we can in turn understand how and why individuals behave as they do." Hence, this ontology is applicable in this research because this research was investigating whether a phenomenon exists within a social entity. Ryan (2006, p.14) stated:

> [Post-positivists] emphasise multiplicity and complexity as hallmarks of humanity. Post-positivist approaches are interpretive and this has led to an emphasis on meaning, seeing the person, experience and knowledge as 'multiple, relational and not bounded by reason' (Henriques *et al.,* 1998: xviii).

Cooper (1997, p.558) also explained that post-positivism assumes that:

> […] the individuals involved in a study (including the researcher) are idiosyncratic, unpredictable, subject to biases, and unrepresentative of a group and methods are developed to correct for these factors which are problematic for the goals of this research paradigm.

Interpretive research is described as "the recognition that subjective meanings play a crucial role in social action. It aims to reveal interpretations and meanings" (Walliman 2006, p.15). It plays a unique part in any methodology of research, whether quantitative or qualitative, and has the potential to understand phenomena. In contrast to positivist research, the researcher rejects the possibility of

> […] an objective or factual account of events and situations seeking instead a relativistic, albeit shared (between the researcher and the interviewee), understanding of phenomena. Generalisation from the setting, usually from a small number of case studies to a population, is not sought; rather, the intent is to understand the deeper structure of a phenomenon, which, it is believed, can then be used to inform other settings" (Rowlands 2005, p.84).

Critical realist research was described by Myers (1997) as follows:

> Critical researchers assume that social reality is historically constituted and that it is produced and reproduced by people. Although people can consciously act to change their social and economic circumstances, critical researchers recognize that their ability to do so is constrained by various forms of social, cultural and political domination.

The perspective taken by this researcher is post-positivist: i.e., that reality exists but can be known imperfectly due to our experience being mediated throughout perceptions, an approach also designated as social realist. A critical realist's position, of a historical and perhaps political interpretation, was not chosen, nor was a purely interpretivist position taken due to the belief that the findings represented a concrete reality and could be generalised. Within this post-positivist epistemology both qualitative and quantitative methods were used.

4.3.2 The Theoretical Perspective

As explained by Crotty (2005, p.3), a theoretical perspective can be described as: "the philosophical stance informing the methodology and thus providing a context for the process and grounding its logic and criteria". Hence, from the literature review it was concluded that important changes needed to be made to the current state of DL programmes in Saudi HE, especially regarding the engagement of academic libraries in supporting DL. The studies conducted in Saudi Arabia related to DL itself, together with ways of improving it (that is, from a managerial perspective); however, these did not pay attention to the support that this kind of education might need from academic libraries. In this study, several DL and e-learning models, which emphasised the importance of the provision of library and information services, emerged from the literature review. These influenced the research methodology and highlighted the information services that DL stakeholders require.

4.3.3 Methodology

Crotty (2005, p.3) introduced methodology as: "the strategy, plan of action, process, or design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcomes." Myers (1997), on the other hand, defined a research methodology as: "a strategy of inquiry which moves from the underlying philosophical assumptions to research design and data collection." In addition, Silverman (1993), cited in Willig (2001, p.8), suggested that methodology can be identified as: "a general approach to studying research topics". In the current study, a multiple-case study methodology was used. This is supported by Yin (2009, pp.60-61) when he said:

> […] multiple-case designs may be preferred over single-case designs. Even if you can do a "two-case" case study, your chances of doing a good case study will be better than using a single-case design. Single-case designs are vulnerable if only because you will have put "all your eggs in one basket".

More importantly, the analytical benefits from having two or more cases may be substantial in cross-referencing. As a result two universities were chosen for this study. This methodology design as experienced in this study has its own advantages and disadvantages as follows:

🞢 **Advantages**

- Select cases to represent a variety of geographic regions;
- Allowed for cross-referencing such as cross-case examination and within-case examination to ensure external validity;
- Satisfy the aims and the objectives of the study and answer the research questions posed;
- Data gathered was normally largely qualitative, but it includes quantitative data;

- Methods to collect data include surveys, interviews and documentation review;
- Allowed for confirmation;
- Enrich the study result where there was no previous study in this topic;
- Allowed to investigate common and unique problems and challenges as well as solutions;

Disadvantages

- It involved travelling;
- Time consuming;
- Created too much data which hard to be analysed due to time consuming;
- Costly especially when researcher support team is needed.

4.3.4 Methods

Crotty (2005, p.3) describes methods as: "the techniques or procedures used to gather and analyse data related to some research question or hypothesis". Silverman (1993), cited in Willig (2001, p.8), suggests that the term "research methods" refers to a "specific research technique". To explain further, methods used in either collecting or analysing qualitative or quantitative data, or both, can be described as the instruments or tools that are implemented to investigate and analyse what the researcher wants to know. These two methods of investigating and analysing data include:

1. Data collection methods such as questionnaires, interviews, document analysis, and focus groups;
2. Data analysis methods that can allow a researcher to extract answers that relate to the research questions (Willig 2001, p.21) such as descriptive statistics or thematic analysis.

4.4 Research Strategy

In conducting this research, a hybrid research methodology using both qualitative and quantitative approaches was used. Walliman (2006, p.46) decided that "both quantitative and qualitative methods are appropriate for case study designs, and multiple methods of data collection are often applied". A qualitative research method can be defined as:

> […] a process of enquiry that draws data from the context in which events occur, in an attempt to describe these occurrences, as a means of determining the process in which events are embedded and the perspectives of those participating in the events, using induction to derive possible explanations based on observed phenomena (Gorman and Clayton, 2005, p.3).

It can also be defined as the method that is used to help to understand cases, situations and problems. It is directly concerned with experience as it is and can be seen as an empirical research method where the data is not in the form of numbers, as is the case in the quantitative method (Blaxter *et al.* 2006, p.64).

The quantitative research method can be very useful in describing phenomena. It is "empirical research where the data are in the form of numbers" and has the potential to collect and analyse data in numeric form (Blaxter *et al.* 2006, p.64). The two strategies/methods adopted by this multi-case-study research have certain key features, which have been used in this study, as illustrated in Table 4.1.

Table 4.1: Key Features of Qualitative and Quantitative Research, Adapted from Gorman and Clayton (2005, pp.4-9)

Factors	*Qualitative research*	*Quantitative research*
Assumptions	Social construction of reality Primacy of subject matter Complexity of variables Difficulty in measuring variables	Objective reality of social facts Primacy of method Possible to identify variables Possible to measure variables
Purpose	Contextualisation Interpretation Understanding participant perspectives	Generalisation Prediction Casual explanation
Approach	Theory generating Emergence and portrayal Researcher as instrument Naturalistic Inductive Pattern seeking Looking for pluralism and complexity Descriptive	Hypothesis-based Manipulation and control Uses formal instruments Experimentation Deductive Component analysis Seeking norms and consensus Reducing data to numerical indices
Researcher's Role	Personal involvement and partiality Empathetic understanding	Detachment and impartiality Objective portrayal

4.4.1 Case Study Design

The case study, which can be called a descriptive form of research, is one of the research strategies that was used to achieve this study's aims and objectives. The features of the case study can be shown as follows (see Table 4.2).

Table 4.2: A Schematic Comparison of the Case Study with Experimental and Survey Approaches Adapted from Hammersley and Gomm (2000, p.4)

Experiment	*Case Study*	*Survey*
Investigation of a relatively small number of cases.	Investigation of a relatively small number of cases (sometimes just one).	Investigation of a relatively large number of cases.
Information gathered and analysed about a small number of features of each case.	Information gathered and analysed about a large number of features of each case.	Information gathered and analysed about a small number of features of each case.
Study of cases created in such a way as to control the important variables.	Study of naturally occurring cases; in 'action research' form, study of cases created by the action of the researcher but where the primary concern is not controlling variables in order to measure their effects.	Study of a sample of naturally occurring cases; selected in such a way as to maximize the sample's representativeness in relation to some large population.
Quantification of data is a priority.	Quantification of data is not a priority. Indeed, qualitative data may be treated as superior.	Quantification of data is a priority.
The aim is either theoretical inference - the development and testing of theory - or the practical evaluation of an intervention.	The main concern may be with understanding the case studied in itself, with no interest in theoretical inference or empirical generalization. However, there may also be attempts at one or other, or both, of these. Alternatively, the wider relevance of the findings may be conceptualized in terms of the provision of vicarious experience as a basis for 'naturalistic' generalisation or 'transferability'.	The aim is empirical generalisation, from a sample to a finite population, though this is sometimes seen as a platform for theoretical inference.

It is a traditional research strategy which can help to collect and build knowledge about a single case or number of related cases, as in this study (Robson 1993, p.40). Eldredge (2004, p.84) supported the use of the case study methodology, especially in library and information science research, by saying:

> The case study represents one of the most popular research methods, not only in our own field but also in the social, policy, and management sciences. In our field, the case study describes and analyzes the author's experiences with a process, group, innovation, technology, project, population, program, or organization.

Hence, as this study is interested in asking questions such as 'how' and 'why', some of the features of the case study are explained further below. Various approaches are possible:

- Selection of a single case or multiple cases (i.e. individual or group interests);
- Studying the case in its context;
- Collecting data by using several methods including observation, interview and documentary analysis (Robson 1993, p.40).

Robson (1993, p.52) describes the case study as a: "strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life

context using multiple sources of evidence", which can produce quantitative and qualitative data (Robson 1993, p.5).

In this research, several reasons were behind the choice of the multi-case study approach. These are:

> ➢ The complexity and lack of clarity in the relationships between various factors and the various organisational authorities and the role of academic library in supporting DL. Hence, it was thought that a case study approach could help define these complex relations (Patton 2002, p.297; Moore 2006, p.XIII).

> ➢ The multi-case study approach employs several methods to collect the necessary data (Patton 2002, p.298). These methods could be qualitative or quantitative or both (mixed methods) as in this study. Applying a mixed method strategy offers many advantages such as flexibility, reliability and the ability to gather a variety of data types to explore the current situation from several resources and organisations and analyse them according to the mainly 'why' and 'how' research questions.
>
> This case study research was also adopted because IMBSIU and KAU were the only public universities in Saudi Arabia who provide full DL programmes.

Even though the case study research approach provides many advantages for research, it can also have some disadvantages and "it is not a 'soft' option" (Robson 1993, p.162). In fact, the case study approach can have some disadvantages that should be considered. One of the criticisms of a case study is about "the representativeness of the findings, and whether they provide an adequate base for both the development and answering of research questions", not forgetting the researcher's influence on events (bias) (Robson 1993, p.168). However, here the researcher is an external investigator and so bias can be reduced to the minimum. On the other hand, being an external agent could reduce the researcher's chances of getting all the resources and support he might need, especially during the process of an interview, distributing the questionnaires and getting hold of some important documents. However, applying both qualitative methods, which are usually related to case study design, with quantitative methods and a large-scale survey could eliminate or reduce bias.

4.4.1.1 Case Study Boundaries

In summary, this is a multi-case study research where two cases involving DL, IMBSIU and KAU, were chosen. These cases have offered DL for a long time and were the only universities to provide complete/full DL programmes in Saudi Arabia. These two cases have

also just established e-learning programmes and so it was very important to investigate the amount of consideration that had taken place regarding the role of academic libraries in this new application of DL.

4.5 Framework for Data Collection

Within a post-positivistic framework, quantitative data collection methods, including questionnaires, were used to collect comprehensive data, while qualitative methods, including interviews and document analysis, were also used to help provide explanation. Figure 4.2 illustrates the research strategy and data collection methods that were used to collect the data and information related to the aims and objectives of the study, while Figure 4.3 describes all the elements of this research.
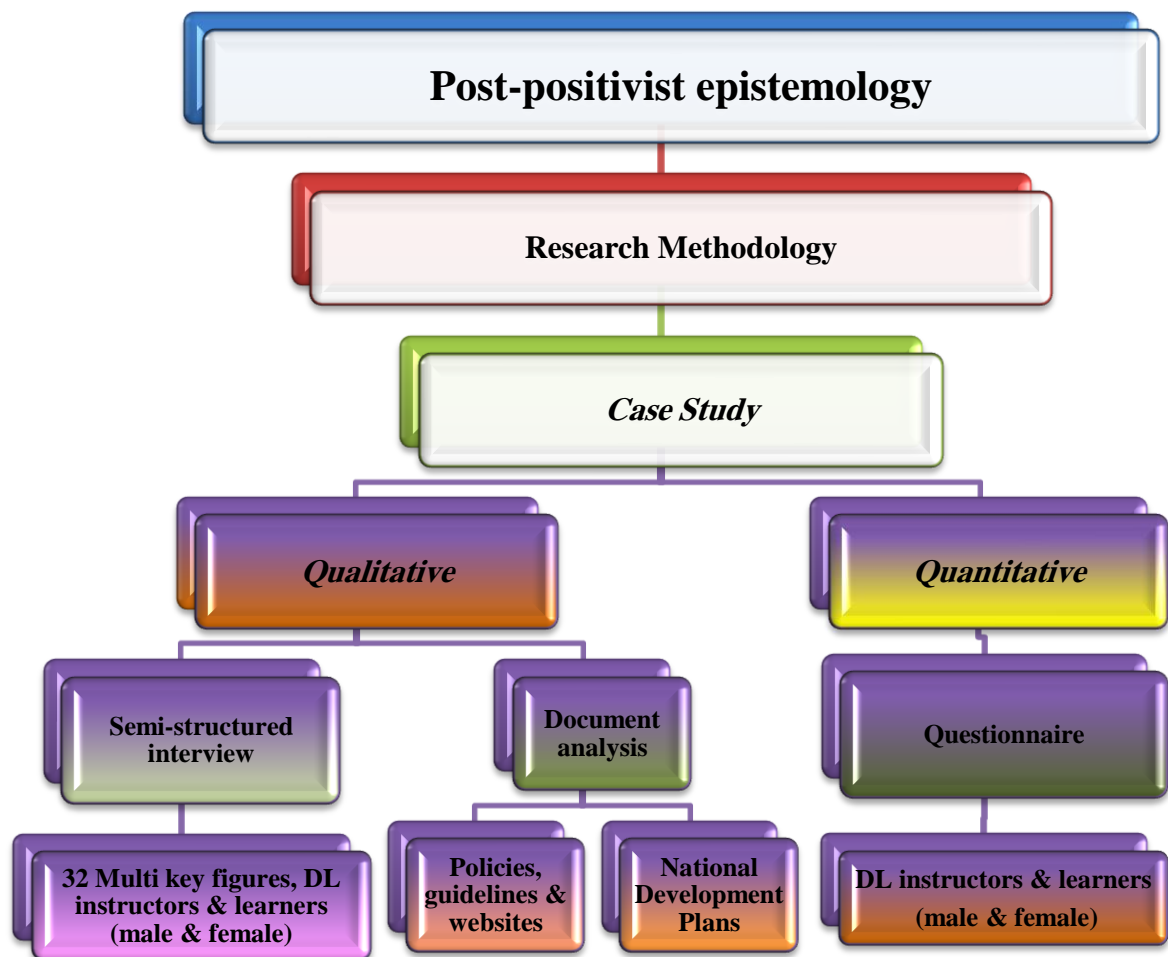
Figure 4.2: Research Methodology Approach
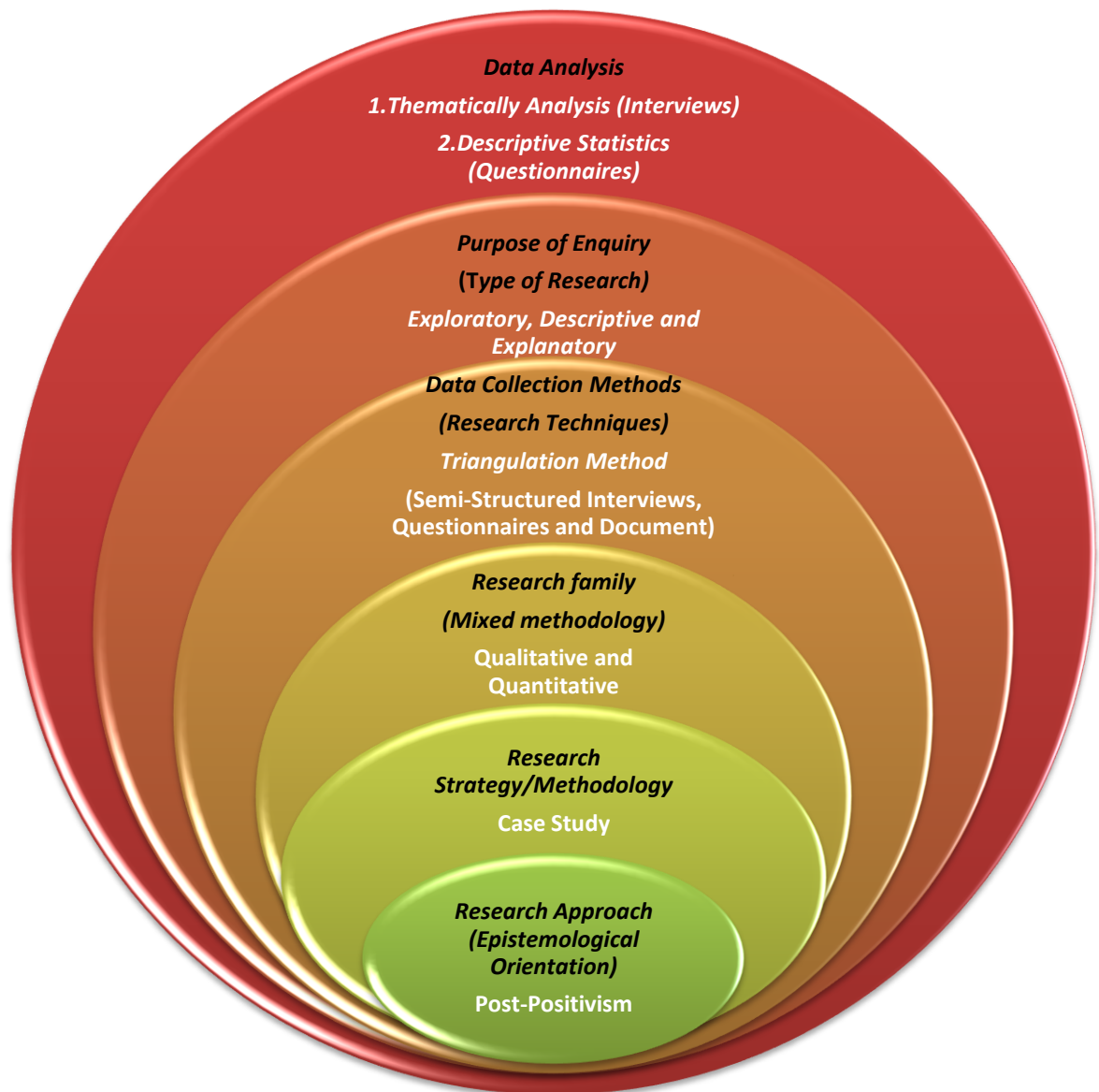
Figure 4.3: The Research's Onion for the Study (adapted from Saunders *et al.* 2003, p.85, cited in Knox 2004, p.123)

4.5.1 Mixed Methodology and the Triangulation of Methods

The data to fulfil the study's aims and objectives and to answer its questions, while providing a comprehensive case study, therefore included a mixture of qualitative and quantitative research strategies and methods such as interviews, questionnaires and document analysis. In fact, by consulting many documents, and by examining the implications of the questionnaires and interviews, triangulation enabled the validity of the process to be strengthened which could be achieved by using multiple data sources (Yin 1994, pp.91-92). Denzin (1970), cited in Maxwell (1996, p.75), described triangulation as: "collecting information from a diverse range of individuals and settings, using a variety of methods". Maxwell (1996, pp.75-76) also

noted that this reduces the risk of a research conclusion only reflecting the systematic biases or limitations of a single method. In addition, it helps the researcher to gain a better assessment of the validity of the research and to generalise the explanations.

Hence, this case study research chose to employ semi-structured interviews, questionnaires and document analysis techniques to collect the necessary data, as illustrated in Figure 4.4.
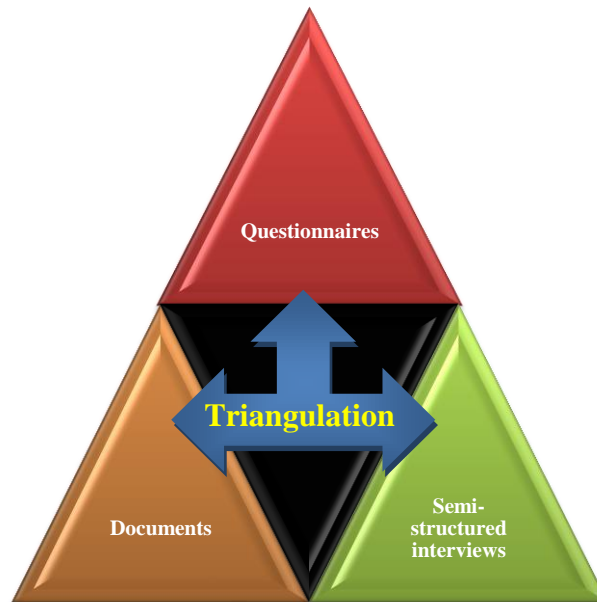
Figure 4.4: Triangulation Research Methods

In fact, Willig (2001, p.76) stated that case study research should always involve a certain level of triangulation. He commented:

> […] since case studies concern themselves with the complex relationship between the contextual and temporal dimensions of an event or phenomenon, it is unlikely that the use of a single research method would generate data that do justice to this complexity […] this makes triangulation an ideal way of approaching case study research (Willig 2001, p.76).

Thus, the researcher decided to use a mixed-methodology approach (i.e. both qualitative and quantitative) for this study in order to combine the advantages of both approaches while helping to resolve some of their disadvantages. Moreover, the methods used to collect the data necessary for this study were also triangulated, as illustrated above in Figure 4.4.

4.6 Population Frame and Sample Selection

The population refers to the whole community that the researcher intends to study and to which any results are applied. Robson (1993, p.135) described a population as "all the cases" which could be used to describe anything, including people. This is one of the first things that the researcher has to choose. In this study, because the role of academic libraries in supporting DL programmes in Saudi HE was to be examined, as well as establishing

solutions/models to support DL programme stakeholders, the population for the questionnaires was as follows:

1- Teaching staff (male and female) who teach on the DL programmes offered at IMBSIU and at KAU. This selection is linked to the importance of DL teachers in the processes of learning and teaching since they play a unique role in developing teaching and learning methods and are therefore likely to understand what kind of support they and their students need from the library and information services. So, their views, attitudes and perceptions are essential to the study about the current role of academic libraries and their future in supporting DL programme stakeholders.

2- Distance learners (male and female) who studied at IMBSIU and KAU. The researcher decided to investigate the views, perceptions and attitudes of students towards the role of the academic library in supporting their current studies and research projects. These students were part of the HE system and therefore required opportunities equal to those who study full time, regarding academic support such as library services. They were a very important element in this study as they provided real feedback regarding the current status of academic libraries and the decisions that are made concerning their needs. Hence, distance learners at levels three and four were investigated because they had experience of studying at a distance; they were also able to offer important feedback regarding the use of the academic library and problems associated with it.

4.6.1 Research Sampling

"Collecting quantitative data is the core of social research" (Moore 2006, p.115) and so selecting a sample to study from the whole population is of central importance. Sampling is concerning with selecting a representative group for the whole population that the researcher has decided to investigate (Robson 1993, p.136). The reason for sampling is to minimise effort, time and cost as far as possible without negatively affecting the amount of data and details that can be collected to achieve the aims and objectives of the study. Hence, two main data collection methods, in addition to document analysis, were used (as mentioned above) with each method having its own sampling method. Figure 4.5 describes the overall sampling; these are also explained later.
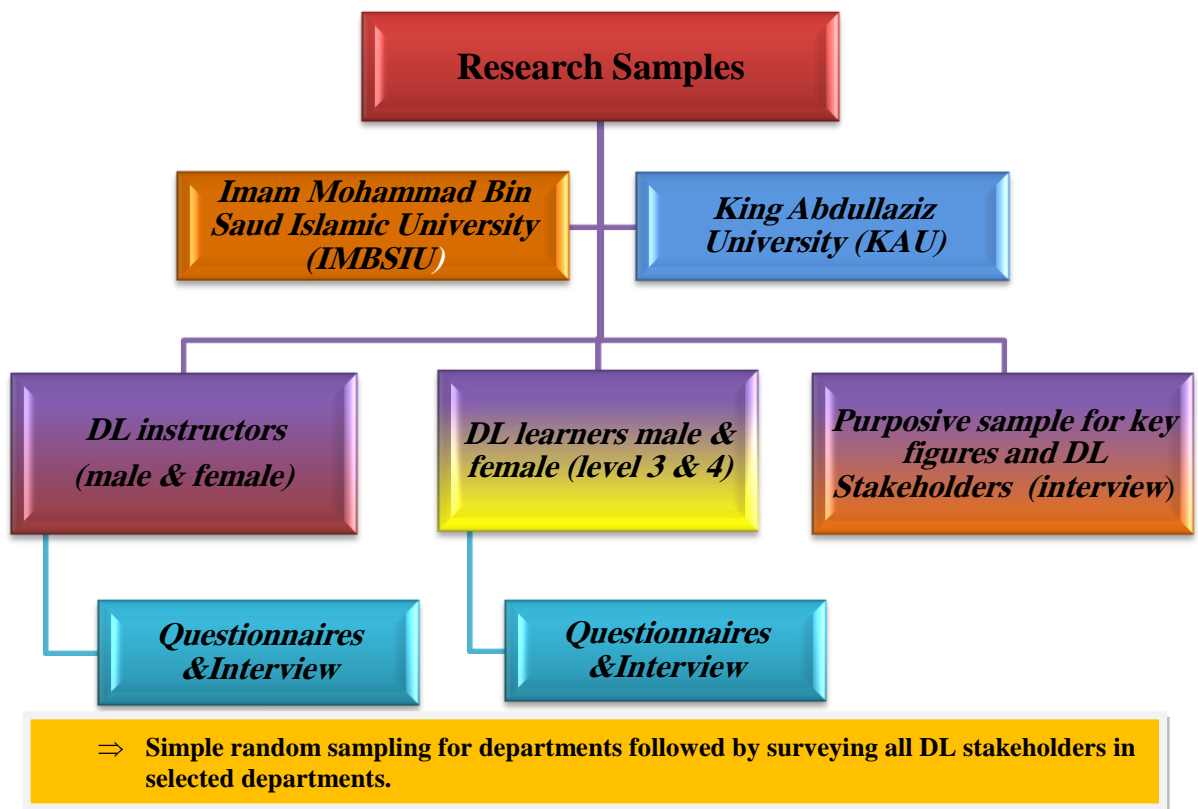
Figure 4.5: Research Samples

4.6.1.1 Questionnaire Sampling

The researcher decided that probability sampling was the most appropriate method for this research because it gives "the most reliable representation of the whole population" and utilises some form of random method (Walliman 2006, p. 76). After deciding this, it was necessary to identify the most appropriate sampling method to use from among the probability samples. First, the cluster random sampling method was used to select cases (i.e. the universities), as shown in Figure 4.6.
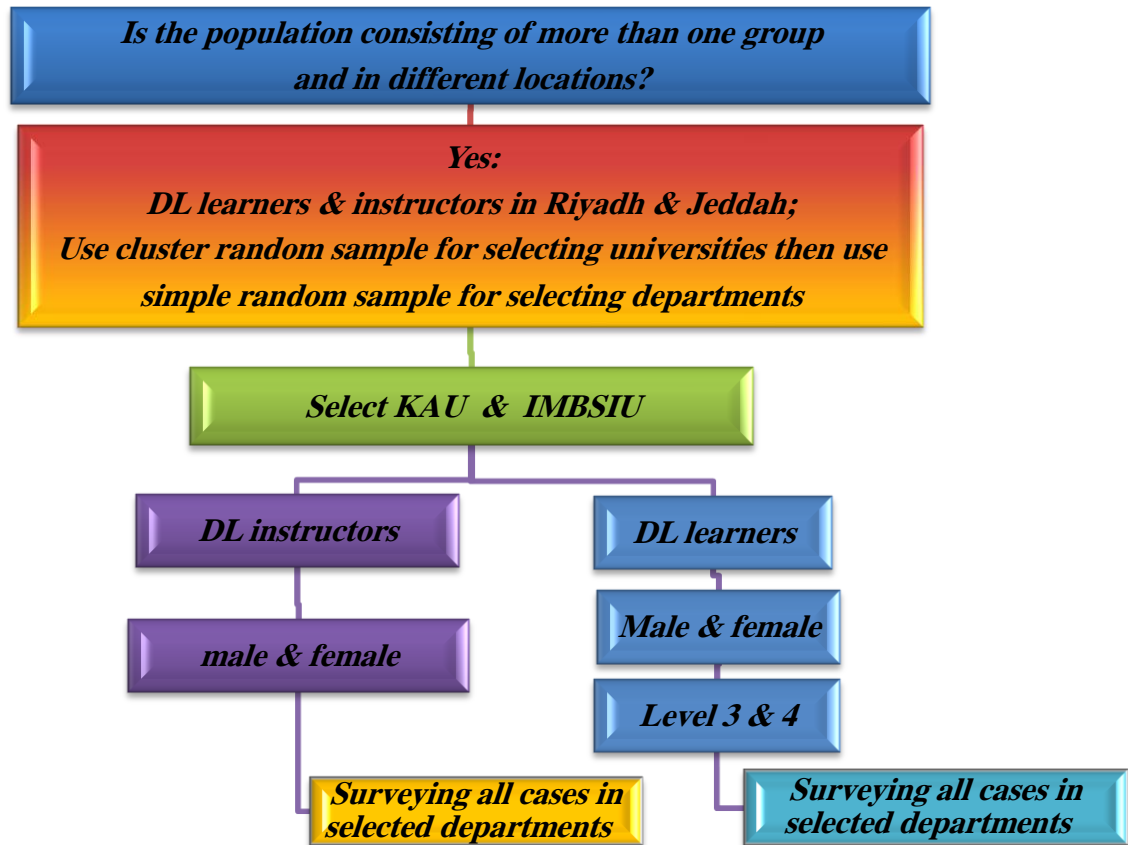
Figure 4.6: Sampling Techniques

Several criteria were used to select the sample as follows:

- Each university that met the rule of inclusion (i.e. only universities offering full DL studies were included in the study). Two cases/universities were included.

- All faculties which offered DL programmes in the selected universities/cases were chosen and included (six faculties).

- Six departments from the six faculties included in the study were randomly selected.

- Some faculties had only one department which offered DL programmes so these were included by default. Some faculties had more than one department which offered DL programmes so simple random sampling was used to choose only one department from each faculty.

- All respondents (DL instructors and learners) in all six departments that were randomly selected and met the criteria of inclusion were included as they were manageable in number and were easily reached.

Overall, two universities, six faculties and six departments were chosen for this study. Simple random sampling, which involves making a random selection from the sampling frame (Robson 2002, p.261), was used to choose departments from each cluster to be studied. These

six departments were drawn randomly after the names of all the departments providing DL in each faculty were written on small pieces of paper, placed in a bowl and then drawn out; only one department was drawn from each faculty. Hence, only six departments were sampled from six faculties. Thus, this method gave each department an equal chance of being included in the sample (Robson 2002, p.261).

Cluster sampling was also used to study distance learners at levels three and four who had decided to take their exams on the main campuses of IMBSIU in Riyadh and KSU in Jeddah. However, it is worth mentioning here that, during the data collection period, distance learners from both universities were given the chance to sit their exams anywhere they wished within the Kingdom. This was intended to reduce the number of learners travelling to Riyadh and Jeddah to take their exams on the main campuses but might possibly reduce the number of students. Hence, the researcher decided that the sample (which was manageable) should cover the whole population of DL learners (males and females at levels 3 and 4) in the departments included in the study.

To summarise, the decision to choose all instructors and learners in selected departments was made for the following reasons:

1- The whole population (instructors and learners) in departments was manageable in terms of numbers and could be easily reached;
2- This increased the reliability of the study;
3- It overcame the possibility that some respondents would not answer the questionnaire because of time constraints, anxiety concerning their final exams and the decision made by some learners to take their exams away from the main campuses;
4- It was expected that there might be a decrease in the number of learners taking their exams on the main campuses;
5- Instructors might be exhausted and busy with the preparation and correction of final exams; this might affect their desire to respond to the questionnaire;
6- The common practice of many distance learners dropping out from the system during final exams.

4.6.1.2 Interview Sampling

The semi-structured interviews were carried out face-to-face and by telephone with two groups, as follows:

❷ **Key Figures**

The first group consisted of key figures drawn from Saudi HE. A purposive sampling technique, in the form of the snowball method, was used to select targeted cases who could be interviewed. Potter (1996, p.107) asserted that the snowball technique is a method where:

> […] the researcher finds people to interview who could provide him or her with important insights. […] the researcher asks for names of additional people to talk with. By using this technique, the interviewer starts out with a small list but gathers momentum and weight as the research proceeds.

In addition, Patton (2002, p.230) described qualitative inquiry an as in-depth approach, carried out with relatively small samples (perhaps only a single case), which obtained data purposefully. He noted that: "the logic and power of purposeful sampling lies in selecting information-rich cases for study in depth" (Patton, 2002, p.230). As a result, several key figures were approached to contribute to this research and the final list was then extended. 22 key figures (excluding DL stakeholders) were finally selected, as illustrated in Table 4.3.

❷ **DL Stakeholders**

The second group consisted of DL stakeholders (instructors and learners). Hence, the DL stakeholders included in this study were drawn from those who teach or learn at a distance; they were selected using volunteer sampling. The volunteers for interview were selected on the basis of their responses to the questionnaires and ten respondents were finally interviewed, as illustrated in Table 4.3.

Table 4.3: Types of Interview

N	Types of Interviewees	Interviews planned	Interviews achieved
A	Deputy Minister of the Ministry of Higher Education for Academic Affairs	1	1
B	Senior Project Manager of the National Centre for E-learning and Distance Learning, Ministry of Higher Education	1	1
C	Deputy Minister of the Ministry of Higher Education for Academic Affairs Consultant	1	1
D	Deputy of Postgraduate Studies and Research (the Project Manager of the E-library in the Faculty of Economics and Administration, KAU)	1	1
E	Deanships of academic libraries in IMBSIU and KAU	2	2
F	Deputy of the academic libraries of technology in IMBSIU and KAU	2	2
G	ICT department managers in libraries at IMBSIU and KAU	2	2
H	Information Services department managers in libraries at IMBSIU and KAU	2	2
I	Directors of Computer Centres	2	2
J	Faculty deans	6	3
K	Heads of the Information Science Departments at IMBSIU, KAU and KSU	3	3
L	Deanship of distance learning managers	2	2
M	Distance learning instructors	Volunteers	3
N	Distance learning students	Volunteers	7
Total		**32**	

4.7 Processes of the Methods

4.7.1 Questionnaires

The questionnaire is a tool that can be used to collect quantitative data from many people; it is a list of questions which are prepared in advance (Rugg and Petre 2006, p.142). In fact, using questionnaires, as stated by Walliman (2006, p.87), "enables you to organise the questions and receive replies without actually having to talk to every respondent […] the questionnaire is a very flexible tool". Thus, a questionnaire was used to collect data for this research. However, some advantages and disadvantages were observed when conducting the questionnaires during this study, as follows:

✳ **Advantages Gained by Applying Questionnaires in this Study**

In this study, questionnaires were useful as they provided the following advantages:

- They involve a large target audience and allow rapid statistical analysis;
- They are anonymous;
- Validity and reliability are measured, as mentioned in 4.7.12;
- Researcher influence is reduced;
- Open questions produce qualitative data.

✳ **Disadvantages of Applying Questionnaires in this Study**

Several disadvantages of using questionnaires in a Saudi context were noted, including:

- The process involved travelling to distribute the questionnaire;
- Some answers were incomplete;
- Low response rates are likely;
- It is impossible to ensure respondents' honesty and seriousness;
- It requires time, effort and cost to administer.

@ **DL Instructors' Questionnaire**

DL instructors (male and female) at IMBSIU and KAU were included in this study. Instructors who had experience in teaching at a distance were included while those who had no experience in teaching at a distance were excluded. The researcher visited the faculties and the departments included in the study and asked for the names of distance instructors. The departments included in the study in both universities gave the researcher a rough figure for instructors who had taught at a distance. Hence, because the number of DL instructors (male and female) given by the departments was manageable and easy to investigate, the researcher decided to survey all of them rather than use a smaller sample; this improved the reliability of the research.

Instructors' questionnaires were distributed to all departments according to the estimated number given by the heads of department. The questionnaires were handed by the researcher to heads of department who were then asked to distribute them among male distance instructors during the weekly department meetings, post them into pigeonholes, or distribute them by any means that ensured that each participant would receive a copy. The researcher also handed questionnaires for female teachers to the dean of women's campuses in Riyadh and Jeddah to be distributed among the departments included in the study. The researcher made every effort to encourage instructors (both males and females) to answer the questionnaire by making regular visits and phone calls over three months; in this, faculty deans and their deputies gave the researcher their support.

The researcher asked all the distance instructors to return questionnaires to the secretaries of the respective departments; not all were returned. The estimated population of DL instructors that were surveyed is shown in Table 4.4.

Table 4.4: The Population of DL Instructors in All the Selected Departments Providing DL

No	University	Faculty	Instructors' Gender	Total	Total Questionnaires distributed to each dept.
1	IMBSIU	Faculty of Sharee'a (Islamic Law Dept.)	Male	25	43
			Female	18	
		Faculty of Arabic Language (Arabic Language Dept.)	Male	35	57
			Female	22	
		Faculty of Islamic Foundations (Islamic Foundation Dept.)	Male	21	34
			Female	13	
		Faculty of Da'wa and Islamic Media (Media Dept.)	Male	27	45
			Female	18	
		Total questionnaires distributed at IMBSIU			**179**
2	KAU	Faculty of Arts and Humanities (Islamic Studies Dept.)	Male	30	48
			Female	18	
		Faculty of Economics and Administration (Business Administration Dept.)	Male	28	43
			Female	15	
		Total questionnaires distributed at KAU			**91**
		Total number of questionnaires distributed to instructors in both universities (male and female)			**270**

In total, 144 questionnaires were returned from both universities; 127 of these were valid, the remainder having been spoilt in some way (see Table 4.5).

Table 4.5: Total Number of Instructors responding to the Questionnaires according to their Faculties

No	Faculty	Male	Female	Total
1	Faculty of Sharee'a (Islamic Law Dept.)	13	9	22
2	Faculty of Arabic Language (Arabic Language Dept.)	12	6	18
3	Faculty of Islamic Foundations (Islamic Foundation Dept.)	10	8	18
4	Faculty of Da'wa and Islamic Media (Media Dept.)	12	9	21
5	Faculty of Arts and Humanities (Islamic Studies Dept.)	14	11	25
6	Faculty of Economics and Administration (Business Administration Dept.)	13	10	23
	Total	**74**	**53**	**127 out of 270**
	Response rate			**47%**

Second: DL Learners' Questionnaire

The second population in both universities (IMBSIU and KAU) were distance learners. As in the previous sampling regime, methods of inclusion and exclusion were used. Distance learners studying at IMBSIU and KAU who were at level three and four in the departments were included in the study; any others were excluded. The justification for choosing distance learners at levels three and four was because they had had enough time to settle down in the university; they had adjusted to this kind of study and become used to it. As a result, they could provide useful information and could make judgements regarding the existing system and its academic support services, such as the academic library and its information resources and services.

Requests had been made to the faculties and departments in both universities to provide the researcher with a list of all distance learners at levels three and four who were going to take their exams on the main campuses in Riyadh and Jeddah. These learner numbers (both males and females) were obtained from each department prior to the exam time; see Table 4.6. Questionnaires were distributed to each of the main campuses in the two universities during the first semester of final exams (January and February 2008). Because the students at levels three and four in the departments of each university were easy to reach and because the researcher was keen to obtain as many responses as possible, it was decided to include in the questionnaire survey all the students (male and female) who took their exams in Riyadh and Jeddah. This decision was made because the researcher was concerned about students' attitudes during exam time, as suggested by some faculty deans and by some heads of department.

Questionnaires in IMBSIU were distributed by departments and the researcher's support team: four people who were hired to distribute and collect questionnaires in Riyadh. They were advised by faculties and departments about exam locations and times for each level. In

addition, questionnaires for female students in each faculty and department in Riyadh were handed by the researcher to the dean of the women's campus who was asked for help in distributing questionnaires to the target population as it is not allowed for men to come into contact with women. Questionnaires for females in Jeddah were sent by departments to the female section for distribution.

Collecting the questionnaires in Jeddah was an important part of the recruitment process to increase respondent numbers. The researcher's support team in Riyadh, who were trained by the researcher, had to carry out the same tasks at the same time. Learners in both universities were asked, once they had completed their questionnaire, to return them to the support team representative, the invigilators, deans' secretaries, or to the secretaries of the respective departments. The description of the population of distance learning students (according to their universities, faculties and departments) is illustrated below in Table 4.6.

Table 4.6: The Population of DL Learners in All the Selected Departments Providing DL

No	University	Faculty and Department	Students' Gender	Level 3	Level 4	Total Questionnaires distributed to each dept.
1	IMBSIU	Faculty of Sharee'a (Islamic Law Dept.)	Male	42	21	63
			Female	25	13	38
		Faculty of Arabic Language (Arabic Language Dept.)	Male	13	14	27
			Female	10	8	18
		Faculty of Islamic Foundations (Islamic Foundation Dept.)	Male	67	45	112
			Female	43	52	95
		Faculty of Da'wa and Islamic Media (Media Dept.)	Male	52	28	80
			Female	17	16	33
		Total questionnaires distributed at IMBSIU		**269**	**197**	**466**
2	KAU	Faculty of Arts and Humanities (Islamic Studies Dept.)	Male	95	57	152
			Female	72	49	121
		Faculty of Economics and Administration (Business Administration Dept.)	Male	95	105	200
			Female	56	35	91
		Total questionnaires distributed at KAU		**318**	**246**	**564**
	Total number of questionnaires distributed to students in both universities (male and female)					**1030**

371 questionnaires out of the 564 collected were valid and were therefore analysed as illustrated in Table 4.7.

Table 4.7: Total Number of Learners responding to the Questionnaires according to their Faculties

No	Faculty	Male	Female	Total
1	Faculty of Sharee'a (Islamic Law Dept.)	34	12	46
2	Faculty of Arabic Language (Arabic Language Dept.)	11	14	25
3	Faculty of Islamic Foundations (Islamic Foundation Dept.)	44	11	55
4	Faculty of Da'wa and Islamic Media (Media Dept.)	33	14	47
5	Faculty of Arts and Humanities (Islamic Studies Dept.)	63	16	79
6	Faculty of Economics and Administration (Business Administration Dept.)	109	10	119
	Total	**294**	**77**	**371 out of 1030**
	Response rate			**36%**

Despite the considerable efforts of the researcher to collect all the questionnaires that had been distributed, the response rate was considerably less than had been expected. However, Dadzie (2009, p.210), according to Locke, Fitzpatrick and White (1983), reported that "low response rates are normal for university surveys."

4.7.1.1 Questionnaire Design

Two questionnaires (for distance instructors and learners) were designed by the researcher after conducting an extensive literature review; these were designed to meet the standards set in the literature. They were written in English and translated into Arabic together with a complete set of instructions; care was taken to make the wording of the statements clear and the questionnaire was presented in an easy, straightforward format (see Appendices 1 and 2 for the English survey). The construction of the two questionnaires was as follows:

Instructors' Questionnaire

The instructors' questionnaire consisted of two main parts:

Part 1: This consisted of eight sections and was designed to collect demographic data about respondents such as their university, faculty, department, gender, age, teaching experience at a distance, academic qualifications, place of the last degree they obtained and their skills and experience in computing, the Internet and the English language.

Part 2: This part was divided into four subdivisions as follows:

- **C1.** Information services in HE. The purpose of this part was to obtain respondents' views about the DL programmes in relation to the importance of information services, and obstacles to the library provision and information that might prevent them from achieving their ultimate goal.

- **C2.** The aim of this part was to understand the current information services being provided to participants by academic libraries in the HE institutes included in this

study. It also aimed to investigate barriers that might prevent participants from gaining full benefit from using academic libraries, their resources and services.

> **C3.** This part explored the respondents' opinions and attitudes regarding the future role of academic libraries, together with their information services and resources, in supporting DL stakeholders in Saudi HE.

> **C4.** The aim of this part was to explore the respondents' opinions and attitudes towards the most practical and useful models or solutions to support DL stakeholders with the information services and resources they need.

Learners' Questionnaire

The learners' questionnaire consisted of two main parts:

Part 1: Here, the intention was to collect the necessary demographic data about respondents, and therefore, this part was divided into eight sections aiming to collect important data such as participants' university, faculty, department, gender, age, level of study, and skills and qualifications in computing, the Internet and the English language.

Part 2: This part was divided into four subdivisions:

> **C1.** The purpose of this part was to explore the respondents' views about DL programmes with relation to the importance of information services and obstacles that might prevent them from achieving their ultimate goal in studying at a distance.

> **C2.** This part sought respondents' views regarding current information services in academic libraries directed to serve DL programmes. It included the respondents' habits in using academic libraries and covered barriers and obstacles that might affect the use of their academic libraries, information services and resources.

> **C3.** Here the objective was to obtain respondent's opinions regarding the expected role of academic libraries in supporting DL stakeholders in Saudi HE.

> **C4.** This part aimed to explore respondents' opinions and attitudes regarding the solutions that they might consider best for supporting them with information services and resources.

Some of the questions in both questionnaires were closed and the respondents were simply required to tick **(√)** the appropriate box to minimise answering time. In addition, after a number of questions, the respondents were given the chance to add more information, in order to enrich the research findings, have the opportunity to express their feelings and add comments and final suggestions, which produced valuable qualitative data for this research.

Finally, at the end of the questionnaire, respondents were asked voluntarily to provide their contact details if they were interested in being interviewed by the researcher.

4.7.1.2 Questionnaire Pilot Study

The questionnaire was finalised in accordance with steps designed to guarantee the validity and reliability of the research instruments when used by the target population. These steps are explained below:

❻ English Version of the Questionnaires

The first drafts of the two questionnaires were designed and written in English; their validity was judged by the researcher's supervisors and by other research colleagues in the UK and in Saudi Arabia whose first or second language was English. Several modifications to improve the questionnaires, and to meet the study's aims and objectives, were suggested. The drafts were also handed to several scholars in other universities and institutes in the UK and Saudi Arabia to gain feedback and to check their validity for statistical analysis.

❻ Arabic Version of the Questionnaires

After gaining approval for the first phase from supervisors, the researcher conducted the second phase by translating the two questionnaires into Arabic. The translation was verified and checked in terms of its clarity (and to avoid any ambiguity) as well as for its validity and reliability by a number of professors, scholars and research students from Loughborough University, Durham University, Leicester University, DeMontfort University, Imam Mohammad Bin Saud Islamic University, King Abdul-Aziz University, King Saud University, The Arab Open University in Riyadh, the Technical Faculty in Riyadh, and the Institute of Public Administration. In addition, they were also verified by two experts in the Arabic language. As a result, some changes were made to ensure the final Arabic language version of the questionnaire was suitable to achieve the goals of this research.

4.7.1.2.1 Reliability

Prior to using the questionnaires, the internal consistency of the data was measured using SPSS by calculating Cronbach's alpha. Fifty-five students and seventeen instructors participated in pre-testing the instruments. For the instructors' questionnaire, the overall Cronbach's alpha test for reliability was 0.74 whilst for the learners' questionnaire it was 0.72.

4.7.1.2.2 Validity

As mentioned above, the instruments' validity was insured by using both face and content validity. Several experts contributed to making sure the questionnaires were valid for use with the target population and that the instruments were valid for the particular purpose for which they were designed. In addition, from the pre-testing process, some modifications were made to make the instruments clearer and easier to answer. For instance, participants said that the term DL should be defined at the top of the questionnaires and suggested using "ticks in the box" instead of "circle the right answers"; they felt this would help save time and effort. Overall, applying the multi-case study methodology for this study was considered to be a powerful approach to ensure the external validity of this research (Yin 2009, pp.60-61).

4.7.2 Interviews

The interview can be said to be a face-to-face conversation that has a mission to achieve. It is commonly used to carry out research or enquiry because the interview is a straightforward tool and is a non-problematic way of exploring and discovering things (Robson 1993, p.228). Moser and Kalton, cited in Bell (1999, p.135), described interviews as "a conversation between interviewer and respondent with the purpose of eliciting certain information from the respondent".

Using the interview as a tool to acquire qualitative data was essential in this study as this method tells the researcher why something is happening (Moore 2006, p.141). It is a very flexible technique that is useful for a wide range of research purposes (Drever 1995, p.1). Robson (1993, p.228), for example, describes the interview as a kind of conversation which usually has a purpose. It aims to collect details about individuals' views, attitudes and behaviour. It has also the potential to allow respondents to express their views, feelings, attitudes, beliefs and values at great length (Moore 2006, p.141). The major advantage of using the interview is its adaptability (Bell 1999, p.135). "It can be a very useful technique for collecting data which would likely not be accessible using techniques such as observation or questionnaires" (Blaxter *et al.* 2006; p.172).

In general, the semi-structured interview applied by this study had several characteristics as described by Drever (1995) below:

- It was a formal conversation on an agreed topic.
- Interview questions set by the researcher created the overall structure.

- It allowed broad coverage of a subject and allowed answers to be explored in depth.
- Different questions, closed and open were incorporated.
- The researcher had a level of freedom about the topics that he wished to investigate (Drever 1995, p.13).

However, applying the interview in this research was not an easy task. For instance, the researcher discovered that some participants were biased toward their organisation. Also, the interview process was sometimes rather lengthy and a refusal to be interviewed by many potential interviewees, especially females, was noticed. In addition, although much information was gathered, the interviews were difficult and time-consuming to transcribe, categorise and analyse.

4.7.2.1 Interview Content

These interviews were intended to provide, as shown above in Table 4.3, rich information about the current situation of academic libraries, and their role and engagement in supporting DL. The interviews, which were conducted on a face-to-face (f2f) basis and/or by telephone, were mostly carried out with key figures at the MHE, KAU, IMBSIU, and KSU, as illustrated in Table 4.8**.** In addition, several interviews were also carried out with some DL stakeholders to help answer some of the research questions and to obtain a clear picture about the current condition of DL, as well as the current and future role of academic libraries in supporting DL. The interviews were also used to investigate respondents' attitudes towards the information services in general and the best methods of offering information services to support their distance learning and teaching (see Appendix 3).

Most of these interviews were conducted over a three-month period from January 2008 to March 2008 and took place in two cities: Riyadh (the capital city where the MHE, IMBSIU and KSU are situated) and Jeddah (on the west coast where KAU is located); some were carried out later by telephone. All of the interviews were carried out in Arabic and were recorded on a high-quality recording device (Olympus WS-310M) to ensure voice quality and to eliminate any interruptions.

Prior to carrying out the interviews, all interviewees were given a brief description of the study and its goals. Ethical issues, such as the security of participants' identity, the reason for collecting the data and the way it should be used, were explained at each interview to give interviewees confidence concerning data security, to explain that the data collected in these

interviews would only be used for the purposes of conducting this research and that no names would be mentioned. Participants were also asked for their permission to be recorded. Some of the interviewees refused to have their responses recorded. Notably, this was the case with female interviewees but also with some males.

The average interview lasted for 60 minutes and each individual interview was recorded and translated from Arabic to English; it was then transcribed into tables according to the interview questions using Microsoft Word. Even though some interviewees were skilled in the English language, they preferred to be interviewed in Arabic in order to achieve a more in-depth discussion, to keep the interview fluent and so that they could express their feelings fully.

4.7.2.2 Interviewees' Daily Tasks

The interviews provided a detailed view of people in charge of administering and developing HE, DL, ICT and also academic libraries. These interviews were designed in parallel with the aims and the objectives of this study. Descriptions of interviewees' daily tasks are included in Appendix 4. However, the topics that were discussed with interviewees were intended to:

- Collect demographic data;
- Obtain interviewees' views about the DL programmes in relation to the importance of information services, obstacles to the library provision, and information that might prevent them from achieving their ultimate goal;
- Understand the current information services being provided;
- Investigate barriers that might prevent interviewees from gaining full benefit from using academic libraries, their resources and services;
- Explore the interviewees' opinions and attitudes regarding the future role of academic libraries, together with their information services and resources, in supporting DL stakeholders in Saudi HE;
- Understand the relationship between DL stakeholders and information services;
- Understand the relationship between departments such as DL deanships, academic libraries, and ICT centres;
- Explore the interviewees' opinions and attitudes towards the most practical and useful models or solutions to support DL stakeholders with the information services and resources they need.

4.7.2.3 Interview Pilot Study

The interview questions were also finalised in accordance with steps designed to ensure the validity and the reliability of the questions. Several people (see below) were approached to evaluate the interview questions in order to maximise their validity and the reliability. Several modifications were made according to the specialists' comments and suggestions.

4.7.2.3.1 Reliability and Validity

The interview questions were first designed by the researcher according to the aims, objectives and research questions; they were then given to supervisors for their feedback. Some changes and modifications were made to make the interview questions more easily understood and more suited to achieving the research goals. The interview questions were also shown to a number of research colleagues in certain institutes, such as Loughborough University in the UK and some universities in Saudi Arabia, as mentioned earlier in connection with the piloting of the questionnaires. The interview questions were considered side-by-side with the research questions in order to judge their suitability to answer these research questions. The participants provided valuable comments and suggestions that benefited the final version of the interview questions.

In addition, as it was planned to conduct interviews with Arabic speakers in Saudi Arabia, some of whom did not speak English, so translating the interviews from English to Arabic was an important task. In addition, those who could speak English were expected to be interviewed in Arabic, as suggested by some people who validated the interview questions. This was for several reasons:

1. Interviewees might feel more comfortable expressing their feelings in their native tongue;

2. Some terminology is difficult to express or discuss in English but is easy to describe in Arabic;

3. It saves time when interviews can be completed with less confusion and fewer delays;

4. Some interviewees might feel shy if they were not able to talk fluently in English and this could badly affect the interview goals.

Thus, the translation of the interview questions was important. The researcher translated all the interview questions from English into Arabic after validating them. They were then given to Arabic speakers who were skilled in both English and Arabic to ensure that the meanings

of the translated questions were consistent. Afterwards, the draft versions of the interview questions, in Arabic, were given to two Arabic language scholars who ensured that they were understandable and readable in Arabic. In addition, a pilot study was conducted with four interviewees (two managers, one instructor and one student) to test the validity of the final draft of the interview questions. Recommendations, such as combining, dividing, adding, clarifying, and deleting questions, were adopted after conducting the pilot study. This helped to make the interview questions as clear and easy to use as possible.

4.7.3 Document Analysis

The third method that was used to collect the necessary information for this study was carried out by searching for and consulting a number of documents related to this study. Robson (2002, pp.348-349) describes documents as "written documents, whether this be a book, newspaper or magazine, notice, letter or whatever, although the term is sometimes extended to include non-written documents such as films and television programmes, pictures, drawings and photographs." Thus, the Internet and websites that have been used in this study can be considered as documents. Many documents related to disciplines associated with this study were consulted, such as documents obtained manually or through the Internet (formal websites) from academic libraries, DL deanships, universities, the Ministry of Communication (ICT plans), and the Ministry of Planning and Economics in Saudi Arabia. These were accessed physically and through websites for inclusion in the literature review because of their importance to this study. In short, a number of important official documents, such as academic library policies, the Saudi development plans, distance learning regulations, HE guidelines and the national plan for information technologies, as well as other important publications and reports, were analysed to provide more insight into the current situation. The websites of academic libraries, DL deanships, and the National Centre for E-learning and DL (NCEL) were also used. See Appendix 7 for a list of official documents consulted and analysed as part of this research.

4.8   Data Analysis

4.8.1 Inductive Approach

This is usually called a 'bottom-up approach' (Gorman and Clayton 2005, p.7), as illustrated in Figure 4.7. It can be used in research by studying and analysing data to arrive at generalisations. This method of reasoning was used in this research as the researcher had little information regarding the role of academic libraries in supporting DL in Saudi Arabia. In addition, the researcher had no information about the attitudes and perceptions of DL

stakeholders concerning the provision of academic libraries and information services in supporting their distance learning and teaching processes. Therefore, data needed to be collected and then analysed inductively to build theory. Qualitative researchers, who usually depend on inductive reasoning, are more likely to be interpretive and to perform their research by starting with evidence in order to build theories (Gorman and Clayton 2005, p.10). Robson (1993, p.61) supported this approach by saying: "inductive data analysis is preferred over deductive as it makes it easier to give a fuller description of the setting and brings out interactions between enquirer and respondents". Holsapple and Joshi (2002, p.44) also suggested this approach, which was adapted to support the current study, by saying:

> With an inductive approach, an ontology is developed by observing, examining, and analyzing a specific case(s) in the domain of interest. The resulting ontological characterization for a specific case is applied to other cases in the same domain.

In addition, Lincoln and Guba (2000, p.30) stated that "generalizations are not found in nature; they are active creations of the mind […]. Now the rules of deduction are closed; given certain premises […] induction is essentially an open process". Vaus (2001, pp.5-6) mentioned that an inductive approach can be used to build theory by observation and then inductive reasoning can be applied to build the theory from these observations. In general, Reese (cited in Lincoln and Guba 2000, p.30) suggests that:

> The widespread distinction between induction as an inference moving from specific facts to general conclusions, and deduction as moving from general premises to [a] specific conclusion is no longer respectable philosophically. This distinction distinguished one kind of induction from one kind of deduction. It is much more satisfactory to think of induction as probable inference and deduction as necessary inference.
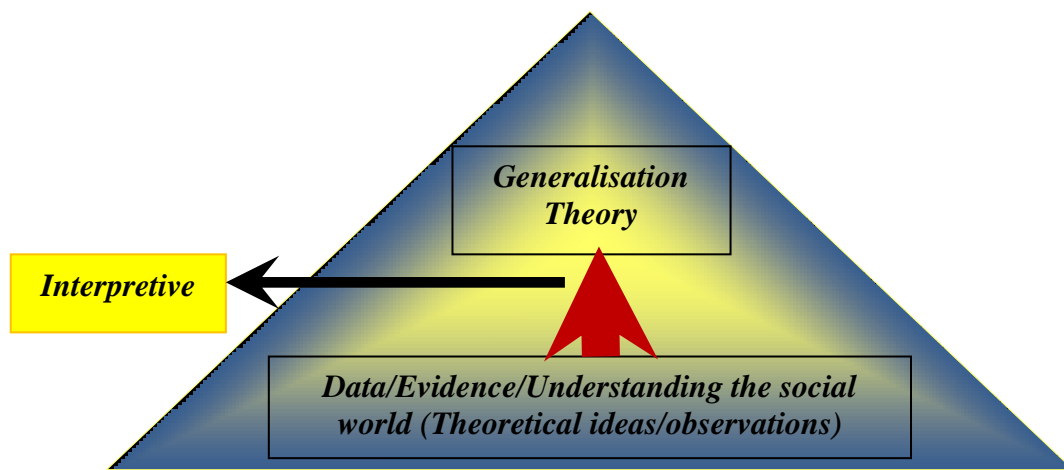
Figure 4.7: Inductive Reasoning Approach (Theory-Building Approach/Bottom-up Approach)

4.8.2 Questionnaires

Data from the questionnaires were first filtered and entered into SPSS for analysis. Descriptive analysis (frequencies and percentages) was used to analyse the data. This was used to describe the participants' attitudes and perceptions.

4.8.3 Interviews

The analysis of the data from the interviews was carried out using a thematic approach. Boyatzis (1998, p.1) describes thematic analysis as a "way of seeing". In terms of a practical description, he noted that this "is a process to be used with qualitative information" that could be used with "most, if not all, qualitative methods" and could be seen as "a way of analysing qualitative information" (Boyatzis 1998, p.4). Hence, a thematic approach was used to analyse and present each question. This was achieved by first listening to the interviews many times to compare them with the transcriptions to ensure that no data were lost. Translation, transcription, comparing the transcriptions with the recorded interviews, and discovering the themes and the sub-themes took a great deal of time and effort. See Appendices 5 and 6 for samples of themes discovered and for the analysis processes.

4.8.4 Documents

As stated, official documents and their contents, including websites (see Appendix 7), were consulted and analysed thematically. Their results enriched the study and its findings overall.

4.9 Summary

To achieve the aims and objectives of this study, and to address the research questions, a multi-case study design was used in this research. The case study approach is considered to be an ideal methodology to conduct research when a "holistic, in-depth investigation is needed", as it was in this study (Feagin *et al.* cited in Tellis 1997). A mixed methodology was implemented combining qualitative and quantitative methodologies. Data collection was triangulated by applying three methods of data collection: semi-structured interviews, questionnaires and document analysis. Data were collected from two Saudi public universities which run DL programmes in two cities: King Abdul-Aziz University (KAU) in the eastern province and Imam Mohammad bin Saud Islamic University (IMBSIU) in the central province. The two selected universities represent, as well as themselves, other Saudi public universities. These two universities were chosen because they are the only leading universities that have offered DL programmes for a long time, having been running DL programmes for

more than 40 years. They are also the leading public universities in Saudi Arabia in terms of this kind of education.

The sample for this study consisted of 270 distance tutors (males and females) from six departments in six faculties which offer DL programmes. These were randomly selected through applying simple random sampling techniques. The sample also included 1,046 undergraduate distance learners (males and females) studying at levels three and four, and recruited from six departments in six faculties: Islamic Law, Arabic Language, Islamic Foundation, Media, Business Administration and Islamic Studies. These were also selected randomly through applying simple random sampling techniques in six faculties: Faculty of Sharee'a, Faculty of the Arabic Language, Faculty of Islamic Foundations, Faculty of Da'wa and Islamic Media, Faculty of Arts and Humanities, and Faculty of Economics and Administration in IMBSIU and KAU in Saudi Arabia. Six departments were drawn randomly after the names of all the departments providing DL in each faculty were written on small pieces of paper, placed in a bowl and then drawn out; only one department was drawn from each faculty. Hence, only six departments were sampled from six faculties. However, it should be mentioned that there was no single faculty offering science programmes to be taught by distance which explains the sampling selection of only colleges for humanities and theoretical studies.

The interviews were undertaken in two steps. First, key figures were approached face-to-face as it was thought that they would offer data to enrich the study's aims and objectives. However, some key figures, such as university vice-chancellors, refused to be interviewed because of their lack of time. Nonetheless, they suggested others who could be interviewed. In addition, some key figures suggested others who should be interviewed as part of this research because of their role. Secondly, questionnaire participants were asked to participate voluntarily in interviews, the second method of collecting data. Participants were asked to provide their contact details if they were willing to be interviewed. In this way, 10 interviewees were obtained. Overall, thirty-two interviews were carried out and the participants played an important role in achieving the aims of this research.

Chapter Five
Interview Analysis

5.1 Introduction

Semi-structured interviews, as mentioned in the methodology chapter, were conducted to collect data; questionnaires were also used. The interviews, which were conducted on a face-to-face (f2f) basis and/or by telephone, were mostly carried out with key figures at the MHE, KAU, IMBSIU and KSU. Several interviews were also carried out with DL instructors and learners to help in obtaining a clear picture about the current condition of DL systems, as well as to consider the role of academic libraries and their services in supporting learning and teaching processes by distance (a list of the types of interview are included in the methodology chapter, Chapter 4). The interviews were also used to examine participants' attitudes toward information services in general and the best way to apply these in their learning and teaching processes. Overall, thirty-two interviews as illustrated in Table 5.1 were carried out and the participants played an important role in achieving the aims of this research.

Table 5.1: Types of Interview

N	Types of Interviewees	Interviews achieved
A	Deputy Minister of the Ministry of Higher Education for Academic Affairs.	1
B	Senior Project Manager of the National Centre for E-learning and Distance Learning, Ministry of Higher Education.	1
C	Deputy Minister of the Ministry of Higher Education for Academic Affairs Consultant.	1
D	Deputy of Postgraduate Studies and Research (the Project Manager of the E-library in the Faculty of Economics and Administration, KAU).	1
E	Deanships of academic libraries in IMBSIU and KAU.	2
F	Deputy of the academic libraries of technology in IMBSIU and KAU.	2
G	ICT department managers in libraries at IMBSIU and KAU.	2
H	Information Services department managers in libraries at IMBSIU and KAU.	2
I	Directors of Computer Centres.	2
J	Faculty deans.	3
K	Heads of the Information Science Departments at IMBSIU, KAU and KSU.	3
L	Deanship of distance learning managers.	2
M	Distance learning instructors.	3
N	Distance learning students.	7
	Total	32

Hence, a thematic approach was used to analyse the qualitative data gathered through the interviews, and each question was analysed and thematically presented (see Appendices 6 and 7). In addition, the interview analysis follows the logical hierarchy of education organisations in relation to DL. In this case, several key people, such as government planners and personnel at the MHE and in universities, have very important roles in planning and running DL courses. However, in the following section, the researcher, as an important step toward

understanding the current research, analyses the DL system in general, together with the government plans related to DL, and the plans of the MHE and universities in managing DL. This has been achieved by analysing the interview responses to questions related to the DL system in general.

5.2 DL Problems

In the section that follows, DL in Saudi HE and any issues related to it, are considered. DL as part of the Saudi HE system and other issues associated with it are investigated below. Hence, several problems have an impact on DL as this is part of the Saudi HE. According to some interviews, the current DL faces several problems, some of which were explained by a number of interviewees who are directly involved: e.g. distance learners, instructors, college deans and DL deanship managers. Some of these problems were associated with learners and instructors while others were associated with the universities themselves and the DL system in general, as explained below. However, interviews with different people raised several problems associated with the current DL in SA. For instance, DL deanships, College deans, and DL stakeholders were interviewed and their answered presented as follows:

Perspective of DL Deanships

Several problems currently associated with DL were expressed. According to interviews with the DL deanships, they uncovered the problems as noted in Table 5.2 below.

Table 5.2: Problems Associated with DL According to DL Deanships

1	*Problems associated with DL system*	The absence of interaction between learners, teachers and the university.	The quality of current DL graduates is poor compared to on-campus students	Regulations from the civil services regarding graduates' futures are lacking.
		Some public and private organisations are still unsure about the system and rarely hire students who graduate from DL.	Running and administrating exams is costly and causes work overload for staff.	
2	*Problems associated with ICT infrastructure*	The Internet's infrastructure in the country is limited by location and capacity.	The infrastructure of the Internet in the university is very strong but outside it is very limited and students cannot easily get access to a DSL connection.	There is a problem widening the bandwidth from 32 to 132 with the Internet provider in the country (KACST); this is very costly.
3	*Problems associated with distance tutors*	Teachers are overloaded with work.	Teachers are unwilling to participate or get deeply involved in providing distance education by using new technologies.	
4	*Problems associated with distance learners*	There is an increase in students who drop out.	Students misunderstand the nature of the DL mode.	Students are weak in dealing with the English language.
		There is a cultural problem related to reading habits which affects outputs.		

An interview with a DL deanship at KAU acknowledged the problem of instructors dealing with ICT in teaching. This problem was considered to be one of the most serious problems

facing the spread and adoption of the new technologies needed for delivering and developing DL. A DL deanship said:

> *"Teachers are usually faced with technical problems or they are illiterate in using technologies. They have difficulties in applying and using new technologies and they believe it's a waste of time. They also need a "ready recipe" without any efforts coming from them (laziness)"* **(DL deanship at KAU).**

Perspective of Faculty Deans

Interviews carried out with number of faculty deans resulted in discovering many problems associated with the current DL according to their views and according to their daily work routines of running, managing and dealing with DL and its stakeholders. These problems included difficulties in dealing with learners, teachers and the university in general. The interviews highlighted DL problems which are presented in Table 5.3.

Table 5.3: Problems Associated with the Current DL According to Faculty Deans

1	*Problems associated with DL system*	Lack of official/regular interaction between distance learners and teachers which affects their study.	Lack of learners' contact details available from the admission office.	There are no useful aids/ tools that can be applied and used to communicate with distance learners.	Students don't know their teachers and vice versa.	Distance learners are treated as an additional burden by colleges and teachers so they don't get the help and support like on-campus students.
		They are only required to attend exams in order to pass and there are no other evaluation methods or tools.	Graduates usually achieve the minimum requirements to graduate from the university (distance learners are scientifically weak).	Distance learners rarely visit the AL because they are only dependent on text books and many students live far away from the campus.	DL regulations don't count assignments in achieving the degree and students are only required to provide two small research projects during the course of their study.	The number of distance learners has increased compared to the college's capacity.
		Learners don't know the study policy.	There is a shortage of text books in the academic libraries.	The cost of travelling and accommodation to do exams in the main centre is a problem.	The university graduation certificate includes a statement about the mode of study which hinders learners in their efforts to find a job.	It is hard to find text books and other materials assigned by teachers in the AL or in book stores.
		It is difficult to complete final research assignments due to the lack of information resources available for students.	DL regulations in the college are out of date and need to be reformed.			
2	*Problems associated with ICT infrastructure*	The infrastructure of the Internet in the country is weak.				
3	*Problems associated with distance tutors*	Teachers misunderstand the DL mode and feel it is only an extra duty during exam time.	Teachers are usually loaded with many hours to teach on-campus and with work other than teaching so they can't provide qualified help and support for distance learners.	Teachers are overloaded with work.	Teachers focus on on-campus students.	Few teachers are interested in teaching by distance.
4	*Problems associated with distance learners*	Learners usually miss exam times because of students' ignorance and poor communication between university and students.	Students misunderstand the idea of studying by distance; they still feel that they do not have to do assignments as planned or do exams in the time given.	Students come to the university only before or during exams.	Too many distance learners are unable to continue their studies and many of them drop out from university during this time.	Learners usually focus on getting the certificate which badly affects their knowledge and also their quality.
		Learners are most concerned about exams and they work only to pass these.	Learners' achievement is less than expected.	Few students are interested in learning itself.	Few students are interested in making contact with teachers during the term.	Learners always complain about working and studying at the same time and having family obligations.
		Some employers do not allow their employees enough time to study or to do exams.	Cultural change is very slow to move to new trends in delivering distance education such as e-learning.	Distance learners are rarely appreciated by their employers.	Always there is a conflict between exams and work time.	

In addition, during an interview with a college dean, he summed up the most important problems he faced in dealing with DL during his career. He said:

> *"[...] there are many distance learners who don't know about the structure of DL and some of them are enrolled for fun which ends up with many of them being expelled from the system. Some learners are enrolled in DL as a chance to reform their current status or as a chance to get another job. It is a solution for high school graduates who couldn't find a place in the on-campus learning system. In addition, distance teachers are also having difficulties in interacting with learners. They always complain about work overload." (College dean KAU)*

Another college dean made similar comments which indicate similarities regarding the problems in DL.

Perspective of DL instructors

The current DL is rife with problems as shown above and as expressed in some interviews. Instructors were also among those who expressed their feelings about current DL and explained a number of problems that faced them during their careers. An interviewee said:

> *"There are several problems that I consider as annoying. For instance, shortages of recent resources, especially in Arabic, with limited peer-reviewed Arabic journals in the library. I had no formal communication with distance learners. In addition, I found it very difficult to add some materials through the Internet due to its poor speed." (DL Instructor/male at IMBSIU)*

Another distance instructor listed several problems facing current distance learners in Saudi HE. He said:

> *"I have seen major and complete distinctions and differences between distance learners and on campus learners from several viewpoints." (DL Instructor/male at IMBSIU)*

He believed that the crucial problem mainly related to the lack of equity between full-time learners and distance learners. However, the problems most frequently mentioned by instructors are described in Table 5.4.

Table 5.4: Problems Associated with the Current DL According to Instructors

1	*Problems associated with DL system*	DL learners are not given the same attention compared with on campus learners.	Distance learners are treated with minimum effort on the part of the university and its support services.	Marking, grades and evaluation schemes in DL are different from in the traditional learning mode which puts distance learners at risk of failing (100% on the final exam).
		Distance learners receive no support whatsoever from colleges and departments.		
2	*Problems associated with ICT infrastructure*	Slow Internet.	Costly to subscribe to the Internet	Many places in the country are not served by the Internet services.
3	*Problems associated with distance learners*	Poor interaction with learners.	Many students cannot afford to buy computers.	No formal communication with distance learners.
4	*Problems associated with the academic library*	Weaknesses of the AL.	Distance learners have fewer opportunities to use information resources and services online or face-to-face.	Distance learners receive no support whatsoever from the AL.
		Distance learners face many obstacles in finding the right resources for study while on campus; they do not have the same chances to explore the library and find resources easily.	Shortages in online Arabic resources.	Shortages of peer-reviewed articles in Arabic

An instructor mentioned several problems but emphasised one of the most common in his opinion which is related to the weakness of the Internet in the country. He said:

> *"I have an Internet connection in my office and in my home but they are still very slow and really annoying. We can't interact with many distance learners due to the lack of this service among students. I believe many students can't afford to buy computers and to subscribe to the Internet especially with the increase of inflation in the country. It is getting very costly for many students to have computer and Internet access. Many places in the country are isolated from Internet services. In addition, the communication infrastructure is very annoying regarding the speed of the Internet. I spend a long time downloading articles and other materials which are very important in my teaching. Sometimes I turn off the computer before I finish downloading. I feel frustrated while I am connecting to the Internet with the DSL cable provided by the university."*
> *(Distance instructors/male at IMBSIU)*

Perspective of Distance Learners

Several problems associated with the DL system were explored by the researcher during interviews with many male and female distance learners. Some of these problems were also mentioned by the administrators and instructors above as common problems with the system. For instance, equity which means to be fair and just with all discovered to be lacking. Distance learners, compared to on-campus students in Saudi HE, are discriminated against and have no equality with on-campus students. This problem was expressed by several interviewees and by both male and female learners and instructors. For instance, distance

learners felt discriminated against by on-campus students and this may have a long-term negative effect on them. They believed that on-campus students were more acknowledged by the university and its departments. An interviewee said:

> *"[…] I have the feeling that we are foreigners in our university and it is difficult for me and my colleagues to find help or support inside the university and inside my college as well."* **(Distance learners/male at IMBSIU)**

Another female distance learner expressed her feelings about her current situation regarding DL where she felt isolated and ignored. She said:

> *"[…] I can tell that as a distance learner, I am completely ignored and treated as a guest for a few days during exam time. I believe on campus students relax more than us as they have frequent lectures, exams, quizzes and assignments. We as distance learners have to work hard to pass the exam as it is the only method of evaluation which is very risky! On-campus students can request and borrow books but we can't do so. I have to work hard to make the necessary connection with the university while the university is living on another planet. The university doesn't even bother to use regular mail to contact us. We have to ask about everything and there is no excuse for us, especially if we miss registration time or deadlines, for dropping out of courses."* **(Distance learners/female at IMBSIU)**

Another distance learner expressed his feelings regarding the equity between himself and on-campus learners; he went as far as including several issues that he perceived as being against equity. He said:

> *"[…] on-campus students have the chance to attend lectures, chat with teachers and other students, and have regular assignments and quizzes which make final exams easy for them. They also raid the library to borrow text books if they are available and leave us without them when we need them. If we need to borrow books, as my friend told me, we have to follow long processes and pay money to do so and there are limited books to borrow for a short time. I believe on-campus students can borrow without these long processes. This may be because we are away from campus and not many off-campus students have used the services before."* **(Distance learner/male at KAU)**

However, the common problems mentioned and explored by distance learners are illustrated in Table 5.5.

Table 5.5: Problems Associated with the Current DL According to Learners

1	*Problems associated with DL system*	Bureaucracy in registration or carrying out other work in the university.	Lack of knowledge of all business offices and support systems in the university.	Bad treatment from staff (clerks).	Limited or zero support from the university and its departments.	Difficult to find text books and other learning materials.
		Time to graduation is extended for more than 5 years.	Long time to get things done (bureaucracy) from the point of view of both men and women.	Hard for students fully to understand lectures in a short time (two weeks).	Success depends fully on final exams which make students like machines.	Disappointment regarding finding a chance to work after graduation (fear of the future).
		Unfriendly atmosphere when dealing with university staff.	Staffs know nothing about regulations and other issues related to learners' study.			
2	*Problems associated with ICT infrastructure*	Weaknesses of the Internet.				
3	*Problems associated with distance tutors*	Hard to contact teachers or see them.	Many teachers are not capable enough.	Busy and unenthusiastic teachers to deal with students including distance learners.	Bad treatment from staff (instructors).	Hard to make contact with teachers.
		Hard to find an appropriate time to contact teachers or even to telephone them.	Unfriendly atmosphere when dealing with teachers.			
4	*Problems associated with distance learners*	It is very difficult to work and study.	Too many family obligations.	Un-cooperative managers at work which badly affects students' achievements.	Too costly to travel and stay in Riyadh to meet teachers or to do exams.	The feeling that they are not part of the university.
		Cannot afford accommodation and transport to attend pre-exam preparation workshops that run for two weeks, or to attend final exams.	Hard for students to leave their families behind to attend workshops or exams.	Less co-operation from on-campus students regarding providing copies of the lecture notes and other materials.	Unfriendly atmosphere when dealing with on-campus students.	
5	*Problems associated with the academic library*	Weaknesses of the AL and the public library.	Limited copies of text books in the AL or in the book stores.	Limited or zero support from the university library.	Useless and boring AL.	Unqualified librarians (uncertain about their job).
		Lack of knowledge about AL services.	Text books are not always available in the academic library.	Difficult to find resources related to learners' studies in the AL or in book stores.	Learners are not allowed to borrow books from the AL (no equity).	

The problems listed above were common, according to many of the students interviewed. However, one student commented on instructors' skills by saying:

> *"Many teachers are not capable enough, too busy and are not enthusiastic about dealing with us."*
> ***(IMBSIU student male)***

Another female distance learner explained her problems studying in the current DL. She mentioned some problems associated with the Internet. She said:

> *"I have no access to the Internet yet several issues related to my study are taking place in some of the Internet forums. I usually miss exams and other important information regarding my study. I have to use the telephone to ask and sometimes you can't get accurate answers. I live in Makah and find it hard to visit the campus every time I need something or want services in the university and nothing has been designed to overcome this problem. For example, the telephone numbers published are not responding and you have to come to the campus to finish your business. In addition, it is very challenging to find text books and other learning materials in my city. Also, it is very difficult to make relationships with other on-campus learners who study the same modules to get feedback from them or to copy their notes. Teachers are usually too busy to meet us and sometimes you can't find them physically or by telephone."* ***(Distance learner/female at KAU)***

In addition, the researcher was interested in looking at the attitude of distance learners toward the Internet in the country as a tool for delivering and developing DL. For instance, many learners mentioned that they were having difficulties in using the Internet. These problems were not associated with the construction of the Internet itself but with its availability as well as with censorship. Issues such as the slowness of the Internet, its cost, its availability in rural areas, and its contents were issues raised by most interviewees.

5.3 Current and Future Solutions for the DL Problems

DL is part of the Saudi HE system and its problems and challenges are inherited from the whole system of HE in the country, as mentioned above. Solutions to some of the problems and challenges associated with DL have been investigated by carrying out a number of interviews with those involved with DL. Comments on solutions to the DL problems in the country can be seen from two viewpoints: first, from the point of view of people in charge of running and administrating DL in universities and the MHE (organisational solutions which are usually carried out by the MHE and universities); and, secondly, DL stakeholders who provide individual solutions.

5.3.1 Organisational Solutions

By carrying out interviews with key figures in the MHE and in universities, some problems and also some solutions were discovered that could be used by many of the organisations involved in administrating and running DL. A DL deanship manager, for instance, stated that current DL in the country has to be completely reformed. He said:

"Current DL has to be completely reformed. These programmes should be offered electronically according to current standards. Interaction and participation should be the first important element o f DL". **(DL deanship at IMBSIU)**

Nevertheless, another interviewee emphasised that many issues in developing DL could be seen from different angles and could involve several organisations. He said:

"Cultural change has to occur in the first place regarding the mode and the importance of DL. Communication in the country, especially the Internet, has to be improved soon to switch completely from traditional DL to the e-learning mode that we are currently implementing. Universities have to train their DL teachers about the principles of DL. Government regulations about employing distance learner graduates should be changed in a way to treat them equally with on-campus graduates". **(DL deanship at KAU)**

In short, according to managerial views, several practical solutions for the current DL problems were presented and discovered. These are presented next.

The MHE Project for Developing DL

The MHE has discovered that current DL is lacking very important elements that can badly affect its quality. Nevertheless, the MHE believes that DL is a key part of solving many of the problems in Saudi HE such as the increased demand for HE, the distribution of the population all over the country, the increase in high school graduates requiring HE, and the need for some people to work and study at the same time as they have insufficient money to support their studies, etc. Because it has a responsibility to ensure the quality of on- and off-campus education in the Saudi universities, the MHE has recently set up, for the first time, a unique centre to deal with DL in Saudi HE. This centre was created a few years ago and has the potential to develop and improve current DL according to the best practice in many leading universities in the world. For example, the centre has signed cooperation treaties with many leading universities in DL and several teams have been sent to investigate, and to attend conferences and workshops on developments in DL and to bring this experience home. An interviewee said:

"The MHE has taken the lead in supporting and improving the current DL system and has created a unique centre and supported it with more than 30 staff with an open budget to improve DL and also to reform it according to the best known DL systems in the world so its quality can be similar to on-campus learning. This centre has just started and we shall see its results in the coming years." **(Manager of e-learning and DL at MHE)**

Universities' Initiatives in Developing DL

In parallel with the MHE, some universities have started to establish new deanships to deal with DL and their stakeholders. For instance, the two cases included in this study, IMBSIU and KAU, which have been offering DL for decades, have recently established a unique deanship to deal only with such programmes. Some universities, such as KSU and KFU, have

also created deanships to help in establishing DL in order to overcome any problems that may occur in the future. An interviewee said:

> *"[…] some existing universities which provide DL have created special deanships to deal with it as an attempt to improve and develop the existing DL. Some universities also, and according to the 8th national development plan, are creating special DL deanships and supporting them with staff, IT staff and more which can help in establishing DL according to universal standards and practice."* (**MHE Consultant**)

One university is also planning to create a TV channel to deliver DL and this is believed to be a very good solution as many problems are still associated with the Internet and other communication methods. A DL deanship said:

> *"We have a theoretical project regarding establishing a TV channel to provide DL through it. However, we need at first good management to run this channel and staff willing and able to work with it. We also need to train instructors in providing good quality teaching through this channel as this involves several adjustments and certain characteristics."* (**DL deanship at KAU**)

5.3.2 Individual Solutions

Investigating people exposed to DL in their daily lives, such as instructors and learners, is very important and their views were investigated regarding the current problems with DL. Hence, DL stakeholders provided comments and opinions concerning solutions to deal with DL problems. Some of the solutions could be achieved by individuals while others could be applied by all. For instance, an interviewee believed that working hard to the best of his ability was the only way to overcome his problems with DL. His own solution was:

> *"I have to work hard and sometimes I feel I want to quit!"* (**Distance learner/male at IMBSIU**)

Another interviewee believed that creating a strict balance among his many obligations was the only way to overcome the problems. He said:

> *"To achieve my desire to continue my education, I have to work hard to make a balance between my study and my work and my family. I believe introducing technologies will solve many problems and will enhance learning and teaching processes."* (**Distance learner/male at IMBSIU**)

In another interview with a female learner, she said that she believed that she sometimes got lost in her study by distance. She believed working hard and getting help from others was her solution. She said:

> *"I and my friends have to spend time and more time to get things done. I have to let my dad and my brothers struggle with me to get things done. I have to send them or go with them to public libraries, book stores and copy service centres to find books and other learning materials related to my study. Sometimes I have to drop a semester if I feel that I'm getting lost in the middle."* (**Distance learner/female at IMBSIU**)

Another interviewee thought that dropping out for a time was occasionally the only way to overcome his problems with his current DL study. He said:

> *"It is really very hard for me to overcome these problems. Sometimes I have to attend only the exams and not attend the pre-exam courses. Sometimes, I have to visit the university campus by*

myself to meet teachers and find out more about learning materials and course contents. Sometimes, I have to drop out of the semester if I have no other choice, especially if my exams conflict with my children's exams. Regarding text books, I have to buy them from book stores and many times I copy them as some of them are very expensive to buy." **(Distance learner/male at KAU)**

On the other hand, a DL instructor offered his solution for his problems with the current DL. For instance, he said he usually focused on finding resources to support his teaching, his research and his distance students. He said:

"We overcome these problems by making extra personal efforts such as copying, printing, asking colleagues in other institutes to provide me with resources available in their libraries. I use face to face meetings with students as much as I can." **(Distance instructor/male at IMBSIU)**

Summary

In this section, several themes and sub-themes related to problems/challenges that are affecting Saudi HE, including DL, that were identified by interviewees and the solutions to some of the problems of individuals, as well as those of the institutions, are presented. Quality over quantity is a major theme; this was seen as being the most challenging problem. In DL this challenge is not exceptional as DL is part of the HE system so improving quality is a key target in HE and should be a goal of all HE programmes, not just DL. The challenge to achieve quality and overcome some problems related to weaknesses which may have a direct or indirect impact on HE, including DL and the kind of support such learners may need (such as AL support), must be faced. Those interviewed provided some solutions that could improve the quality of HE including DL in SA and solve some of its current problems. Table 5.6 below summarises the most important problems and challenges that face Saudi HE, as extracted from the previous analysis.

Table 5.6: Problems and Solutions for Saudi HE

Category	Problems/Challenges	Why it is problem?and Solutions
Quality	Provide quality control for Saudi HE (public universities) including learning, teaching and research in order to compete with other universities in the world.	Lack of instructors' training (provide continuing education).
		Recruiting qualified teachers.
		Establishing self evaluation in universities.
		Establishing a quality centre in each university.
		Supporting AL
	Shortages of qualified faculties	Need to hire staff from abroad.
		Hard to find genuinely qualified staff without vague certificates.
		Strong competition between neighbouring countries in the GCC region countries to hire qualified staff.
Places and demand	Shortages and limitations of places available for high school graduates in HE institutes.	Limitation in terms of teachers, classrooms, support staff and budget.
	How to secure places for all high school graduates as a cultural need.	Cultural problem
	In 2007/2008 Saudi public universities accepted 81% of high school graduates in 21 universities.	Cultural problem.
	High scores of high school graduates have made it hard for universities to accept all of them.	Apply extra measures (evaluation tests) that can predict more about high school graduates
		This problem has made universities accept many students whilst still having the same resources. This has an effect on the quality of learning and teaching and also on the quality of graduates.
Peoples' Attitudes toward HE	Difficulties in shifting people's attitudes from wanting to join universities to other important disciplines such as vocational institutes. This puts pressure on HE system.	Cultural problem
	Difficulties in shifting and changing society's and students' need to join HE.	People are "addicted" to universities (cultural problem)
IT	Adapting or spreading IT among departments and staff.	Lack of skills and training. Staff fears of IT.
Cooperation	Lack of co-operation among universities.	Duplications in MA and PhD research topics among Saudi public universities leading to wasted time, money and effort.
English Language	Weak English language skills from graduates of public education (high schools graduates).	Makes it hard to hire staff whose first language is English.
		Minimises the benefits of English IR available in libraries or on the Internet.
Experience and Skills	Lack of experience/skills of university staff and students in searching, finding and using information related to their teaching, research and study.	Lack of research training, skills, and using IR which have badly affected S.A. universities' reputation among the universal institutes.
Peoples' Attitudes toward Reading	Difficulties in shifting and changing society's and students' attitudes towards the importance of reading.	Public education is not playing a basic role in helping students to read and make the reading habit an important part of their lives.

In addition, number of interviewees offered a number of current and future solutions for the problems and challenges that are facing Saudi HE, including DL. These solutions are summarised in Table 5.7 below.

Table 5.7: Solutions to the Problems and Challenges in Saudi HE, Including those Facing DL

Responsibility	Solutions	Initiatives /Results
The Ministry of HE (MHE)	Currently the MHE has been supported with the highest budget in its history and with qualified staff (consultants) to deal with these problems.	Its results will be seen within 3 to 4 years.
	Recently, the MHE has requested that each university should start a new quality assurance programme to improve its services.	On-going
	The MHE has supported the plan and the idea of converting existing colleges to universities all over the country.	This has resulted in the creation of more than 24 universities in the last three years (universities have increased by three or four times of their number in the past). This development is on-going.
	The MHE has encouraged and supported the idea of sending Saudi students to study in the most well known universities in the world.	There are now more than 35,000 male and female students studying different subjects, in different countries, in different languages and for different degrees.
	Currently, the MHE has taken the lead in supporting and improving the current DE system.	The MHE has established a DL centre and supported it with more than 30 qualified staff with an open budget to improve and reform DL so it can be similar to on campus learning. This centre has just started to introduce its plans and these will be seen in the near future.
	Initiatives by the MHE have commenced to build an admission database system among all Saudi public universities in the country to minimise unoccupied free places available in each university (admission unity).	The goal is to accept all high school graduates in the country who want to join universities.
Saudi Public Universities	Universities have started to rebuild their strategies to fulfil the plans of the government and the MHE and to follow the growth of IT developments.	Currently, strategies are being undertaken by universities to build strong and complete sets of sub-strategies including DE strategies and AL strategies.
	Some universities have established special deanships for running and offering DL.	Universities such as IMBSIU, KAU, KSU and KFU have created DL deanships and supported these posts with staff, a budget, equipment and more.

In short, in this section, a number of the most common problems and challenges facing current DL stakeholders were presented, together with the solutions they had devised.

5.4 General View of DL and Government Plans

The respondents who commented primarily on DL in general were the Deputy Minister for HE, the Deputy Minister/consultant for HE, the Director of the National Centre for E-learning

and DL, the college deans, and the deanships of DL managers. They were asked about the DL and whether they have fulfilled the government's development plans. At first, interviewees agreed that there are no official figures (i.e. statistics) or certainty that DL had currently achieved the government's goals but many of them agreed that there is some evidence that can be used to judge the system. The next section investigates this claim which may provide some answers to crucial questions.

5.4.1 Current DL Evaluation

Three different views emerged about the evaluation of existing DL in the country and how well it is achieving its goals. These views are described below.

❦ Moderate Views

Some interviewees believed that DL was designed to fulfil the government's needs in terms of the work force required for running the country; they felt it was also designed for those who were unable to study full time. They believed that DL was useful only in certain subject areas (in Humanities subjects, for example) and not in all. However, they felt that DL was not useful in areas such as science where there was a need for learners to use labs or to carry out experimental trials. Nonetheless, they believed that in order for DL to succeed, learners must be willing to study by themselves as mature students. However, one interviewee commented on the ongoing initiatives to develop and offer a "new-style" DL, as in KAU and IMBSIU where e-learning is being introduced.

> *"It is too early to judge the benefits of DL, but we can say that it has been successful in some subjects such as humanities studies. It has been a solution for those who can't find time to attend full time education. It has been useful in some literary programmes where there is no need to be on campus all the time to use labs such as with science studies. It is especially useful for those who are willing and have the ability to study independently."* (**MHE Deputy**)

❦ Positive Views

A number of college deans were optimistic that the current DL is fulfilling the government's plans for several reasons. For example, the government has used graduates from DL since it has started to employ them in some of its offices. Distance learning has also improved the chances of promotion of existing government employees; this has had a positive effect on their incomes. Some college deans mentioned that applying and using new ICT in running DL will be a key factor in improving it; this may also help to achieve the government's plans. One of them said:

> *"Technology has given us tools to improve the current DL and we should use them."* (**College Dean**)

In addition, some of them mentioned that several graduates from DL have worked in high positions in the government which gives some indication that the system has succeeded in achieving some of the government's plans in terms of improving current government staff. Respondents, such as the Dean of the Economics and Business College at KAU, believed that many learners who have graduated from DL have been working and participating in running the country. However, there are no clear statistics to back up this view. In addition, some interviewees believed that DL constitutes a way of improving society but that this system of education still needs more improvement and more interaction in order to make it "real learning".

> *"So, the system needs to be reformed by redesigning the system and making it "alive" by improving communication methods between learners themselves and between them and their teachers. The system needs to be more interactive, not only between teachers and learners, but also between the university support departments such as the library and distance learners and this is what we are planning to do with help from the DL deanship."* **(Economic and Business College Dean at KAU)**

Furthermore, a number of interviewees were happy that the current DL is achieving government plans and helping individuals to improve themselves. As a result, they decided that the current DL system has produced work force participants for the government as well as increasing people's skills and knowledge; it has also provided solutions for shortages in public universities. Moreover, a number of interviewees decided that the current DL in the country has given officers and soldiers the chance to continue their civilian HE as the two systems (i.e. the civil learning system and the army learning system) are different. Such programmes have provided them with hope and the opportunity to continue their undergraduate studies, enabling them then to carry on to postgraduate studies.

> *"Many people who graduated from this system have been working and participating in running the country which means that the system is providing solutions."* **(DL Deanship at KAU)**

One interviewee was very optimistic regarding the current DL and felt it had satisfied the desires of most learners even if it is still having some problems. He believed that many key people in the country today had graduated from the DL system. He said:

> *"Several key people in the country studied on our DL and they have achieved very high positions in the government. I am not saying that our DL is perfect but it has been one way of improving our society. These days, DL should be improved to face new challenges and competition that comes from other universities in the world. [...]. Many learners leave the system before they finish which poses several questions."* **(KAU College Dean)**

Negative Views

On the other hand, some interviewees believed that the current DL might not achieve the government's plans because it is lacking clear standards and regulations. One interviewee said:

*"Starting a new era of DL at this moment in the two universities (IMBSIU and KAU) will not improve the quality of current DL unless it follows standards and regulations." (**Manager of e-learning and DL at MHE**)*

Furthermore, some interviewees mentioned that the ongoing initiatives to improve the current DL in universities were mainly directed towards improving the interaction between learners and their institutions. For instance, learners on DL who were interviewed felt that nothing much was being done to improve their current DL rules and regulations, or to make access easier to the contents of modules for all existing distance learners anywhere in the country. For example, some interviewees, and an analysis of some documents, indicated that the current DL run by the new DL deanships still state in their regulations and rules that the mode of study will be mentioned on graduates' certificates which is being seen by many as inappropriate; this hinders the efforts of many graduates to find a job. This constitutes a considerable concern about the future of DL in the country. Some interviewees believed that learning is an amalgam that involves interaction, regulations, standards, contents, activities and support; all these must be considered if an attempt is to be made to improve DL. The director of the National Centre for E-learning and DL in the MHE said:

*"What is going on now in developing DL in some Saudi public universities is focusing mostly in applying new methods of communication and administration for the processes of providing DL (improving the communication between learners and institutes only). I'm not sure if this will improve the whole current DL system. For instance, if graduation certificates are still mentioning the mode of study, then the problem will remain unsolved as public and private sectors are worried about hiring people who are studying by the distance mode. To solve this problem and others, such as a learner's right to be treated equally with full time students, the future regulations of DL must state nothing about the mode of study on the certificates or the certificate should explain in detail the methods and activities that have been carried out during the time of study." (**Manager of e-learning and DL at MHE**)*

As a result, several interviewees decided that many distance learners became dispirited because they were not welcome to work in some public or private sector organisations due to their mode of study. In fact, some interviewees believed that current DL lacks many important activities that are found in full-time study. For instance, fixed and regular interactions and communication between DL stakeholders are absent and the only evaluation method is based on final exams which, it is believed, are not enough to evaluate learners' achievements. DL also lacks other important activities such as assignments, quizzes etc. This could be one reason for employers preferring not to hire DL graduates. Nevertheless, some college deans went further in putting forward their views. They said that distance learners themselves are not satisfied with the current system as there is no planned interaction and there is no official support from the university and its departments that can help them to achieve their goals. As a result, they are unable to satisfy or achieve the government's plans as they should.

College deans also mentioned that distance learners are making significant efforts to learn by themselves without any help or support from the university and its departments, such as the AL, which is what this research is investigating. They emphasised that learning activities by distance are completely dependent on textbooks, which weakens this kind of education, yet learners have to focus completely on these books in order to pass their final exams. In short, a college dean asserted that DL is currently full of problems. This was a view which was also put forward by others. He said:

> *"Current DL studies are full of errors which have to be fixed as soon as possible. There should be continuous contact between colleges, distance learners and teachers. There should be several methods of evaluation rather than a final exam. Distance learners should be treated and supported like other students. DL has been set, in the first place, to help the government get qualified employees with less effort and to improve the knowledge of people working in the government. In fact, I believe current DL has succeeded in achieving the government plans but today they need to be revised."* **(College Dean)**

Other interviewees also emphasised that distance learners, in order to achieve their learning goals, have to search and struggle to find text books as these are rarely available in local book stores or even in the academic libraries. In addition, learners anywhere in the country have to visit the campus of the home institution to communicate with instructors and full-time students in order to get their help in understanding the modules and their contents. This is due to the current absence of official communication or interaction between distance learners and their home institute.

Moreover, a number of interviewees believed that there was no defined or planned support from the university and its departments, such as the library, to support learners' study. Some college deans believed that the quality of graduates must be improved in order to achieve the government's plans and to give graduates the best chance of being recruited into the public, as well as the private sector. In general, some of them believed that the current DL does not satisfy learners' needs and they often fail to satisfy market demands.

5.4.2 The Goal of Spreading DL

The Saudi government, in its 8th DP, emphasised the importance of DL, as mentioned in Chapter 2, in providing HE for those who need it. In view of this, several goals have been set for developing DL in the country in order to achieve the government's plans as mentioned by some interviewees. For instance, the Director of the National Centre for E-learning and DL in the MHE mentioned several goals for spreading DL in the country. These are presented in Table 5.8 below.

Table 5.8: DL Goals According to the Director of the National Centre for E-learning and DL in the MHE

DL goals
To spread HE in a short time.
To give older people the opportunity to continue their education.
To help the government to have more qualified people with HE qualifications to run the country.
To provide a solution to the shortage of places in universities.
To widen the education base and make it available to those who need it.
To enable the replacement of foreign workers with citizens.
To enable people to continue their HE within a system that can fit in with their daily routine.
To improves people's knowledge and skills.
To create and improve work forces in the country that are needed by the fast growing economy.
To improve society, which might have a long-lasting effect in the future.
To minimise the need for people to travel to big cities to study.
To spread Islamic law and learning all over the world.
To overcome the problem of universities being limited in terms of human resources and therefore unable to accept all applications on campus.

One interviewee decided that these goals will not be achieved if the current DL system remains unchanged and pointed out the importance of reforming the current DL system to include more subjects and to become more interactive. This should lead to success in terms of the most important goal of replacing foreign workers with a national work force. Furthermore, another interviewee believed that HE, including DL studies, should be available for the whole of society in order to achieve the goal of improving the country as well as to replace the fast growing number of foreigners working in the country. He said:

> *"DL is a way of offering HE studies to all our society. I believe it is a right for all high school graduates to have access to HE. We also want to elevate our society to deal with the developments in the world. We also want to increase the general cultural issues in the community and to produce outputs that can replace foreigners."* **(DL Deanship at KAU)**

5.5 DL Plans in Saudi HE

DL is part of the Saudi HE system and its short- and long-term plans, while the role of the MHE is to put into operation the government's development plans regarding actual HE. Thus, the MHE has responsibility for achieving the government's plan regarding DL as stated in the 8th DP. For instance, and according to some interviews, the government has put forward several sub-plans to reform and establish DL in all public universities. These will not be achieved without regulating cooperation and coordination between universities and the MHE. Thus, to obtain a clear picture of the plans, policies and initiatives for DL, the plans for Saudi HE with respect to DL have to be investigated. For this purpose, several interviews were carried out with a number of key figures in the MHE who were asked about the short- and long-term plans set by the MHE to deal with the DL system. They noted that there are two clear plans that are run separately by the MHE and by universities and their colleges which are aimed to develop DL and make it available for all who need it.

Plans Run by Universities

Certain plans and initiatives have been set and are run by public universities which offer DL. Currently, universities are ordered, according to the 8th DP, to set targets for spreading DL and applying ICT in its organisation. These plans aim to make DL accessible to all, more attractive, and to develop current DL by investing in new ICT to achieve better interaction and to improve the quality of learning and teaching by distance. For instance, some interviewees from the DL deanships and some DL stakeholders believed that using ICT in offering DL would increase students' understanding of the modules' contents, help them to understand the teaching and learning processes, achieve the necessary interaction between learners and teachers, and provide easy access to academic and non-academic support including academic libraries. According to number of the interviewees, providing easy access to the contents of modules and to other resources at any time, enabling interaction between instructors and learners, and having scheduled lectures available on the web, would increase learners' achievements. However, some of the existing plans and developments, as mentioned by some interviewees from the MHE and DL deanships at universities, were usually managed individually by the universities; the MHE had no control over adjusting or interfering with the universities' plans.

Overall, the findings indicated that universities can freely set and run their own plans independently, including those related to DL. One interviewee suggested that some existing and some new public universities should not be in a rush to start DL and apply the latest technologies until they are very confident that this would achieve their goals in parallel with the goals of the government. He said:

> "The problem in applying DL has been created by our universities and their regulations. DL is ready to be used and needs only regulations and standards to run it and administrate it. I encourage universities not to embark on DL or try to apply its new technologies until they fully understand it and set its rules and regulations by visiting and looking over others' experience. We don't want to repeat ourselves and repeat the existing DL where there are no clear regulations and standards and there is no effective interaction between learners and universities". **(MHE Consultant)**

Plans Run by Colleges

Different views regarding the colleges' plans to develop the current system of DL emerged from several interviews conducted with a number of college deans. Some of them decided that plans have been set by colleges to develop the present DL. However, although colleges are part of universities and are currently fully engaged in providing DL, some of them have set up limited, traditional plans and projects to develop it while some have no plans at all. For instance, some college deans stated that they have prepared in-house plans to develop their

current DL while others said they had not. When some of them were asked about how much effort they are making to do this, one said that his college had no plans at all to develop the current DL as DL is and should be run and managed by the university. He said:

> *"No we don't. Our regulations to run DL are set by the university and we have no role in changing or improving the current programmes. In fact, we need to build effective communications between us and distance learners. However, we hope that the establishment of the new DL Deanship will improve communication between distance learners, teachers, colleges and other support departments."* **(College dean at IMBSIU)**

Another interviewee believed that his college is playing its role in developing the existing DL by making a number of future plans according to the resources that are available. He said:

> *"Yes, we do. In our college, we have several plans to improve the current DL in the near future by providing effective tutoring for distance learners; distributing visual signs in the college to encourage distance learners to visit and consult their tutor; making links between teachers and students through e-mail or mobile telephones; working closely with the new DL deanship to improve the current system to get more interactions between learners and teachers by applying new technologies; and finally by improving the college's webpage to meet distance learners' expectations and needs."* **(College dean at IMBSIU)**

A college dean also asserted that his college is planning to improve the current DL by fully cooperating with the new DL deanship.

Plans Run by the Ministry of Higher Education

A number of interviewees reported that several plans and initiatives have been set and run by the MHE to improve and develop DL in the country and to help universities to apply such education according to the best practice in the world. For instance, the MHE has created a DL and e-learning centre to help Saudi public universities to apply and develop DL with less conflict, complexity and mistakes, as described in Chapter 2. Nevertheless, an interviewee believed that the MHE is very cautious about managing and spreading DL in the country and among its public universities. As a result, the MHE has taken the initiative to create this centre to ensure that the application of DL and its technologies in the country is appropriate. However, the deputy at the MHE thought that the MHE is still very caution about spreading the application of DL in the country while, at the same time, this centre should provide the necessary support to overcome some of its disadvantages. He commented:

> *"DL has pros and cons and we are engaging with it with caution."* **(MHE Deputy)**

5.6 The Future of DL in Saudi Higher Education

The current DL in Saudi Arabia is led by two universities which constitute the case study of this research. Nevertheless, the MHE is also engaging in developing current DL as one of its goals and is attempting to take it forward scientifically according to standards and rules. Nevertheless, universities which are currently providing DL are keen to improve it by fully

applying IT. Currently, an interviewee believed that the MHE is moving very slowly but with strong steps toward spreading DL. He insisted on the importance of looking at the experiences of other countries, and both national and international organisations, in relation to adopting DL in order to benefit from its adoption in the future. He believed that DL is still under construction in the MHE and should be used in the future and at the right time. He felt that the MHE believes that DL is still not clearly understood and that many people are asking what it is all about. Furthermore, another interviewee argued that distance learners are currently isolated from their institutions; this is a very serious problem although this has been given priority in the MHE's plans. This can make it very difficult to achieve the goals of the government, the MHE and the universities. One interviewee thought that he and the MHE shared the same vision regarding the future of DL. He said:

> *"The learning that I need and campaign for is a mix of education (blended education) that can merge traditional education and DL. This ensures quality of education whilst making available to distance learners all the facilities and support available to the traditional student". (**MHE Deputy**)*

He also believed that the current DL in public universities in SA lacked equity between on- and off-campus learners; this could be very damaging for distance learners' achievements in the future. Two views regarding the future application of DL in HE which were discovered are discussed below:

Blended DL

In this learning scheme, and according to some interviewees, distance learners should be required to attend lectures and assessments at a fixed time. Learning should be a mixture of face-to-face, on-campus learning and remote study using new technologies such as the e-learning mode. However, an interviewee decided that applying e-learning is not a goal in itself; instead, it is a very important step in improving and refurbishing the current DL. Hence, he believed that the MHE plans related to DL and e-learning should be merged with traditional education to achieve a combination mode (i.e. blended learning). He said:

> *"E-learning allows learners to interact and improve skills such as understanding, speaking, and analysis, to be deductive and yet it opens their mind to make the best of this technology in order to benefit from it in their future careers. In planning for the spread of DL by using e-learning tools, we need learners to be susceptible to change and to increase their knowledge, their skills and their thinking which can happen if we merge e-learning with traditional education. So the content of DL is the most important aspect to be monitored. We need interactive and flexible e-learning to achieve these goals instead of just only interacting with machines." (**MHE Deputy**)*

☻ **Full Remote DL**

Another interviewee from the MHE expressed his views regarding delivering DL in the future. He believed that the MHE should work hard to achieve its plans to develop DL where learners should not have to attend regular classes or depend heavily on text books as they do now. Instead, DL elements should be delivered entirely by using e-learning through the Internet, together with formal interaction. He said that:

> *"DL is a strategic option for the country and for its people and it must be given more attention and more support. It is not for all; it should be only for those who didn't find the time to attend full time study. It should be completely remote with real interaction and there must be no attendance required at campus at all […]. We need to get over the idea of exams being done face to face and in the campus. It should be completely online." (**MHE Consultant**)*

One interviewee (an MHE consultant) also believed that DL should be carried out completely by remote means and that current developments in ICT can help in administrating it. He also indicated that the 8th DP requested the MHE and public universities to ensure that they established DL in the near future according to the best practice in the world. However, he believed that DL should not be applied in the immediate future because:

> *"I know that the recent development plan has insisted on spreading DL, but we shall wait and wait until we feel that we are very confident of its quality and can guarantee its outputs[…]" (**MHE Consultant**)*

5.7 Current DL Learner Satisfaction

Considering learners' satisfaction is an important issue and plays a key role in developing and improving the current DL services and support. Moreover, evaluating and examining the existing DL in the country is very important as it should be evaluated on a regular basis to overcome its problems. However, the current practice in Saudi DL lacks such evaluation. Hence, a DL deanship said:

> *"Soon, we will start several assessments: one regarding teachers and their marking of exams. Another is an assessment for learners who are participating in DL; it assesses any problems that hinder them from using the DL system." (**DL deanship, KAU**)*

Another DL deanship said:

> *"We have not evaluated our programme, but we are planning to do so as we go along**." (DL deanship/ IMBSIU**)*

However, a number of interviewees, especially college deans who had a relationship with distance learners, commented on this topic. In general, they believed that most distance learners were not satisfied with the current DL for many reasons. An interviewee said:

> *"[…] current DL depends 100% on learners themselves as they have to make all the efforts to interact with teachers and on-campus learners in order to find out more about text books, the syllabus and other materials such as exams times, assignments and other support. However, I can't comment about learners' satisfaction as there are no accurate statistics about them during or after study. What I know is that there are problems with the policies of the government and*

private organisations regarding hiring and accepting DL graduates. This has caused depression and frustration for us and for learners themselves. However, as far as I know, many army employees who are studying by distance are acknowledged and accepted by their employers." (**College Dean, IMBSIU**)

Another interviewee believed that the current DL is unlikely to gain learners' satisfaction for several reasons. He said:

> *"[...] current DL studies are full of mistakes and have to be fixed as soon as possible. There should be continuous contacts between colleges, distance learners and teachers. There should be several methods of evaluation rather than just a final exam. Distance learners should be treated and yet supported like other students. DL has been set up in the first place to help the government to get qualified employees with less effort and to improve the knowledge and skills of people working in the government. In fact, I believe the current DL has succeeded in achieving the government plans in the past and today need to be revised."* (**College Dean, KAU**)

5.8 Current Academic Library Challenges and Problems

Investigating the current working environment in the academic libraries included in this study could help in deciding the current and the future support that could be offered. A number of challenges and problems were discovered in the working environment of the academic libraries at IMBSIU and KAU. These problems and challenges were introduced by a number of interviewees who were closely involved in the daily working routines of the academic libraries and were seen as factors which hinder the development of initiatives to support distance learners with appropriate information services.

Staffing in Academic Libraries

Several problems were mentioned relating to staff. It is generally recognised that recruiting qualified library staff is one of the most challenging tasks that face academic libraries. For instance, librarians dealing with specifically with ICT were rare. Not surprisingly, training current staff in using new ICT was challenging as many staff found it very difficult to learn new technologies which has resulted in the delay of AL projects. The dean of the AL at IMBSIU agreed that staff and new technologies were a difficult issue:

> *"The main concern we have is recruiting qualified staff with strong attitudes and experience in using new technologies. Also we have problems with the current staff that are very cautious when using new technologies. However, training them will be expensive for the library as well as running the risk of losing them once trained. Nevertheless, the shortage of employees is a very common problem that we have had all the time which affects our services to all our users and has led us to ignore DL stakeholders. I believe your research is a wake up call."* (**AL dean at IMBSIU**)

The dean of the AL at KAU believed that shortages in staff in general and particularly those who were able to deal with new technologies constituted one of the problems currently facing his library. He said:

> *"[...] shortage in staff in general and those who can deal with technologies is a problem."* (**AL Dean at KAU**)

In addition, the deputy of the AL at IMBSIU mentioned other problems beside the shortage of staff and the lack of training that had been mentioned previously by his dean. He said:

> *"There are a number of obstacles:*
> - *The shortage of staff which hinder our plans;*
> - *The increase of staff moving out from our library to look for a better job;*
> - *Lack of training opportunity for employees;*
> - *Poorly skilled staff in dealing with technologies;*
> - *Lack of promotions given to qualified staff;*
> - *Lack of staff productivity."* (**AL deputy at IMBSIU**)

The Deputy of the AL at KAU agreed with previous interviewees about one of the most frequent problems that faced academic libraries which was the lack of staff skilled in ICT. In addition, the lack of staff skilled in dealing with ICT was seen as a very challenging factor for academic libraries since it minimises their services, and especially for ICT departments in the academic libraries, as expressed by the ICT dept. manager at IMBSIU. He also believed that another problem was the shortage of librarians who could deal with the English language which is the second largest language in the country as most information resources available in the academic libraries, especially the electronic ones, are in English.

In addition, an Information Science Department (ISD) manager was asked about his departmental role in overcoming some of their graduates' problems in dealing with new ICT as well as problems associated with dealing with the English language. He felt that his department was doing what it could to solve this problem and others such as the weakness of English language skills of graduates. He mentioned that his department offered several courses in dealing with new technologies and also offered some English courses which he believed, however, were insufficient. However, he concluded that his department is in a transitional period caused by the merging of his department with the computer science department into one college (the Computer and Information Science College) which can solve these weaknesses in the near future.

ICT Infrastructure

The ICT infrastructure is another important factor in supporting libraries and their users including DL stakeholders. ICT infrastructures in academic libraries include software and hardware solutions to help and support libraries and librarians carry out their tasks and achieve their goals that involve helping and supporting users to access information services and information resources. ICT infrastructures in general within universities and outside the campus are very important to help academic libraries provide better services for their users, including distance learners. On these themes the dean of academic libraries at IMBSIU felt

that his library was faced with several internal and external problems associated with ICT infrastructure. He commented:

> *"[...] our library's servers are located at the ICT centre and we have no control over them which badly reduces the quality of services as AL servers are linked with the university servers which are very slow. As a result, any problem occurring on the university server will affect the AL services. The ICT infrastructure in the country is also delaying and frustrating our efforts and services. We have requested from the university to have our own domain, but they refused as the AL is part of the university and has to be under its domain name. These problems will affect badly our information services in the future to all users, including DL stakeholders."* **(AL dean at IMBSIU)**

The deputy of the AL at IMBSIU explained the problem of the university server hosting the library homepage. He said:

> *"We have a technical problem in the sector of ICT in the university and in the library which hinders our efforts to provide decent services. This is because our server is linked to the university server and any breakdown to it affects our services and users get sick and tired of these breakdowns which occur routinely."* **(AL deputy at IMBSIU)**

In addition, problems associated with ICT were found also in the AL at KAU. The information services department manager believed that the shortage of PCs linked to the Internet was one important problem that many users complained about. Solutions to these problems, according to one interviewee, could be solved personally as the dean of the AL at KAU specialised in computer science and has a strong contact with the computer centre in the university which is able to provide quick solutions. He said:

> *"[...] Shortages in terminals linked to the Internet in the library are a problem. We have also experienced problems with the ICT infrastructure, but with the deanship of AL having a background in computer science he has been able to ease the problem a little and improve the ICT in the library (through personal and individual solutions)."* **(IS dept. Manager at KAU)**

An interview with the ICT dept. manager at the IMBSIU academic library exposed some of the problems associated with ICT. He summed up what the dean of the AL at IMBSIU and his deputy mentioned earlier, as well as noting the problem of the Internet being too slow. He said:

> *"Our servers are located in the ICT centre which usually breaks down and takes them a very long time to fix. We should have our servers in the library so we can maintain them quickly. The library webpage is always down because it links with the main university homepage which is usually down. In fact, we would like to have our own homepage away from the university homepage hosted by an outside agency to reduce breakdown periods. Also the Internet is very slow which sometimes give us and our users some frustrations and headaches. The shortages of PCs in the library linked to the Internet also are very low when compared to the number of users."* **(ICT Dept. manager at IMBSIU AL)**

The ICT dept. manager at KAU libraries described his library's ICT infrastructure as being old and unable to satisfy users' needs, including those of DL stakeholders. Users, especially undergraduates, were also limited in their access to databases and this problem was exacerbated by their password details being shared with other unauthorised users, thus increasing the load on the network, a problem noted by a number of interviewees. In addition, a limited number of terminals (fewer than five) were available to search online databases in

the library, as mentioned by some interviewees and as observed by this researcher. The ICT manager at KAU's academic library said:

> *"The ICT in the AL isn't suitable to achieve our goals and meet users' needs as it is very old. We are expecting the ICT centre in the university to increase access and to increase the bandwidth of the Internet. Also we offer limited access to our databases from outside for instructors and postgraduate students only, which might affect undergraduates including distance learners. This is due to a cultural problem among some users who abuse the right to use them for business purposes! In fact, the culture of the society has to be changed to respect other rights including not sharing or abusing passwords."* **(ICT Dept. managers at KAU AL)**

Budgets

The budget allocated for academic libraries is a very important factor in achieving the library's goals and projects. In the past, both academic libraries were having difficulties with a reduced budget. Today, the academic libraries investigated in this study were found to be satisfied with the new budget allocated to them. However, although budgets had increased, which was seen as a positive factor, challenges also had increased, including the library's ability to spend these budgets in ways that could improve services and serve all users without discrimination. The AL dean at KAU said:

> *"In the past we have experienced shortages in our budget, but these days our budget has been doubled which has given us some new challenges for our staff to improve our services."* **(AL dean at KAU)**

In addition, the AL deputy at IMBSIU said:
> *"[...] shortages in the budget in the past few years were a very common problem in running the library, but the recent years this problem has been solved and the budget has been increased in line with the development of the country's economy."* **(AL Deputy at IMBSIU)**

On the other hand, as the academic libraries' budgets were increased, serving users and providing them with basic information services such as document delivery was still under pressure from budgetary constraints, which raises an important question about spending and allocating priorities from these budgets. This problem could have a negative effect on serving users, especially distance learners. An interviewee said:

> *"[…] there is a problem in offering document delivery services to users as they are costly to provide."* **(IS Dept. manager at KAU)**

Buildings

AL buildings are another important factor in serving users. The condition of AL buildings was investigated in this study and they were found to be in varying conditions with all of them having some particular problem. For instance, the AL dean at KAU, his deputy, the information services manager and the ICT dept. manager all complained about the condition of their current building which was very old. A large area of this building was unsafe and no longer be used. One of them said:

"[…] we have a problem with building and it is hindering our plans to improve our services…but hopefully soon we will be able to move to a new building that can satisfy our plans and satisfy our users' expectations." **(AL Dean at KAU)**

On the other hand, the AL at IMBSIU was located in a well designed building although, recently, a large part of the building was allocated to a new college (the Computer and Information College) which had badly affected staff attitudes, library services and had also hindered some of their plans to improve the library services, as mentioned by the AL deputy at IMBSIU. He said:

"[…] the reduction in size of our library due to creating a new college (Computer and Information College) in part of the library building has forced us to squeeze our collections, decrease our services and this has badly affected our staff attitudes." **(AL Deputy at IMBSIU)**

☺ Poor Marketing

Marketing and publicity were seen as one of the problems and challenges facing academic libraries; these were mentioned by many interviewees. Currently, academic libraries were having difficulties in marketing themselves inside their own community according to some AL staff because there were no marketing strategies or plans to market AL services. For instance, the AL deputy at IMBSIU said:

"Shortages, and a decrease of users using our library due to poor marketing of our services from the library itself and because of the study mode in the university which depends on textbooks only. […] the lack of marketing strategies and plans are slowing and decreasing the uptake of our services and we hope to work toward solving it." **(AL deputy at IMBSIU)**

In addition, the information services department manager at the KAU academic library believed that the lack of marketing was behind the shortages of users coming to the library when compared to the university population; this included DL stakeholders. Moreover, in an interview with the dean of the AL at IMBSIU, he raised worries about the library plans to market its services due to the lack of cooperation with colleges. He said:

"We have a plan to market our services among colleges, but there is no co-cooperation from them." **(AL dean at IMBSIU)**

Furthermore, an enthusiastic ICT manager at the IMBSIU academic library believed in the importance of marketing. He believed that communication between the library and distance learners was completely non-existent because of a lack of marketing techniques which can make any attempts to serve them impossible. He said:

"[…] we don't have any current or future plans to market our services among the many university segments including distance learners. In fact, even if we plan to help distance learners, we don't know how to reach them. You have drawn my attention toward this segment of users who were forgotten. Personally, I will start, from now, to make an effort to contact the DL deanship and encourage them to encourage their stakeholders to use the library. I will try to market our services to reach all distance learners and I hope to have the full cooperation of all deanships in the university including DL." **(ICT Dept. manager at IMBSIU AL)**

Copyright Law

Copyright law is an important factor in the life of librarians. Copyright law was seen as one of the problems facing academic libraries and had an effect on providing comprehensive information services. An interview with an information services manager at KAU academic library said:

> *"We have a problem with copyright rules that prevent us from supporting and serving our users."*
> *(IS dept. Manager at KAU)*

Providing users on- or off-campus with copies of book chapters, articles and other documents was seen by many interviewees as impossible according to copyright laws which hinder academic libraries from serving all users. Some interviewees agreed that they were facing many complaints about this service but they believed they have no alternative but to accept spreading online databases for all. The MHE consultant offered a solution to this problem by saying:

> *"[...] Copyright can be sort out by the library and vendors and publishers. We should plan from now to ask for a digital copy for each book an AL buys. This will make all books available for all users including DL..."* *(MHE Consultant)*

Even if users are allowed to access to online databases, several interviewees from academic libraries, as was explained before, were complaining about many users abusing the copyright law by downloading huge amounts of texts or giving their own passwords to others who were not allowed to use them without having permission from the AL or from the publishers.

Summary

Overall, it was clear that the lack of staff (librarians) skilled in ICT as well as English language was seen by many interviewees as one of the most important problems and challenges facing academic libraries. There were a number of issues which have helped to create this problem and library staff have a responsibility to help solve some of these problems. However, obstacles, problems and challenges which were identified by many interviewees are summarised in Table 5.9.

Table 5.9: Common Problems and Challenges Faced by Academic Libraries

Academic Libraries' Problems
Shortages of staff.
Staff not literate in ICT (Poorly skilled staffs in terms of dealing with technologies).
The increase in the number of staff moving out from libraries to look for better jobs.
Lack of training opportunities for staff.
Shortage of promotion for qualified staff.
The lack of staff productivity.
Lack of staff able to deal with English and other languages.
Inappropriate buildings.
Weak ICT infrastructure.
Slow Internet connections.
Centralisation of the library server.
A shortage of PCs linked to the Internet in the academic libraries.
Cultural problems regarding the passing of database passwords to unauthorised persons.
Poor information services compared to improvements in budgets.
Lack of marketing strategies.
Copyright law hindering academic libraries by limiting information dissemination, circulation and sharing.

5.9 Current and Future Role of Academic Libraries in Saudi HE

In this section, the research examines the current and future condition of the academic libraries included in this study. Issues relating to their current plans, policies, services, initiatives, cooperation and collaboration with other departments in their universities are investigated, including their relationship with the DL deanship. The text is supported by data drawn from interviews. Several issues related to supporting current and future DL with information services were investigated to obtain reliable information about the position of academic libraries in supporting DL; several subthemes were also introduced to support the main theme.

5.9.1 The Natural/Expected Role of Academic Libraries in Saudi HE

Usually, an AL has a mission, a vision and several important roles to meet. One important role is to serve all of its users equally. Regarding this theme, a number of interviewees expressed their views about the role that the AL should be playing in Saudi HE. For instance, in an interview, the deputy of the MHE described his views regarding the role of the AL by saying:

> *"Academic libraries are a very important element in HE (traditional or by distance) not only for supporting teaching and developing knowledge, but also in supporting research. Now we can see many ALs have subscribed electronically to e-journals, e-books and other databases and are trying to make these resources available for their users. These resources should be seen now as basic as "a, b, c" elements in each AL. Making these databases available equally for students and teachers now is essential on- s and off-campus.”(Deputy of the MHE)*

Another interviewee believed that, in general, there is a strong relationship between libraries and users and the two are interdependent. He said:

> *"I believe academic libraries are looking for users such as learners, and users are looking to use ALs. It is a natural relationship in HE and this is what makes HE so special.” (Deputy of the MHE Consultant)*

An interview with the Director of the National Centre for E-learning and DL in the MHE emphasised the important role of the AL in supporting users, including DL stakeholders. He stated that:

> *"The AL is a very important element in HE and we have a vision regarding the importance of AL and in general the importance of IR in supporting learners including DL stakeholders. ...it is not a big issue to buy IR and make them available to be used, the big issue is how can we train and educate stakeholders (instructors and learners) to use them and make them an important part of their daily routine."*

Other interviews were carried out with an important group of people who are responsible for preparing, teaching and educating future librarians to work in academic libraries. This group comprised the heads of information science departments in three universities who expressed their views concerning the role of the AL in supporting DL in Saudi HE. The importance of the AL in HE and in particular DL was supported by one head of an information science department who said:

> *"AL is very important for all including distance learners as they are away from campus and yet they need to support their study with all information services and resources. Distance learners are usually depending on the self study mode and yet they want to improve their knowledge and skills not only by textbooks or ready materials but they need more resources and more information services from their AL to achieve their goal."* **(Head of ISD at IMBSIU)**

Another information science head expressed his positive attitude towards the important role of the AL in supporting all users, including DL students. He said:

> *"AL has a very important role in supporting learners including DL stakeholders and this role should be present at all times. It is the most important support that learners should have from universities during their study."* **(Head of ISD at KAU)**

There was general agreement among all the interviewees regarding the important role of the AL in supporting learning, teaching and research for all users, including distance learners. For example, training users was identified as one of the most important roles of the AL. Its role, according to a number of interviewees, should be extended to cover all users, including DL stakeholders, for several reasons. First, they live far away from campus; second, it is a tool to improve their knowledge and skills; third, they need more resources as they are considered as self learners; fourth, the era of being heavily dependent on textbooks in teaching and learning is coming to an end; finally, using the AL is a way to improve students' achievement.

5.9.2 The Current/existing Role of Academic Libraries in Saudi HE

Considering the current role of academic libraries in Saudi HE is important in understanding their role in Saudi education; it also helps to provide a solid base from which to understand the role of academic libraries in supporting DL and their stakeholders. One interview was concerned with looking at the existing role of the AL in supporting all users in Saudi HE and it was found that learners and instructors rarely used the AL which raised a big question mark about its role. The e-learning and DL centre manager at the MHE said:

*"It is shameful that on-campus students rarely use or visit the AL as well as many instructors and how can you imagine the situation with off-campus learners? AL should market itself and its services and provide advanced services." (**Manager of e-learning and DL in the MHE**)*

However, a number of studies, as mentioned in Chapter 2, have shown that Saudi academic libraries did not always meet users' needs and needed to improve their services. In a number of interviews, especially amongst learners and instructors, there were frequent complaints about the AL's services and its role, an area covered later in this research. In addition, the head of the information science department at KAU stated that the AL is losing its users for several reasons. He said that:

- *Teachers are heavily dependent on the Internet to find information;*
- *Teachers are very busy with many tasks beside teaching;*
- *Learners are rarely required to do assignments that involve using AL and if they visit the AL they visit it only for using the Internet;*
- *Learners (on or off-campus) are depending on text books for their study." (**Head of ISD at KAU**)*

5.10 The Role of the Computer Centre in Supporting DL

Information technologies these days play a key role in managing DL. As a result, some Saudi public universities are starting to manage DL by using e-learning techniques. To make this initiative fully succeed, cooperation and coordination between DL deanships and computer centres in universities are essential. At IMBSIU, in an interview carried out with the computer centre manager, he put forward the view that the relationship with the DL deanship is still weaker than it should be. He believed that the computer centre should serve all university departments, including the new deanship of DL. The computer centre usually provides assistance in selecting hardware and software, and in deciding on standards and the best applications for the current ICT environment. However, he believed that the relationship with the newly established DL deanship is still inadequate. He said:

"At this moment, we have slight contact with the DL deanship regarding only improving their homepage, setting up equipment and their network. However, their current homepage was designed by an outsourcing agent. We are having regular meetings with the DL deanship regarding improving their communication infrastructure as with any department in the university. In fact we haven't set up any joint plans to apply new technologies for running the current DL." (**Computer Centre Manager IMBSIU**)

Relationship with E-resources/contents and DL

Today, e-resources are a valuable tool in learning, teaching and research. Usually, the computer centre is responsible for making the e-resources accessible on and off campus with the cooperation of AL which can make e-resources beneficial for all users, including DL stakeholders. Hence, it is clear that the role of the computer centre involves setting up the best environment in which to run these e-resources for the benefit of the AL and its users. In fact, some interviewees believed that the computer centres carry out their work according to the

university departments' requirements; they set up and run any hardware and software to make them compatible with the applications and equipment available in the university. One of them said:

> *"We have no involvement in signing for or deciding on e-resources. At this moment we have no involvement in dealing with e-resources, but in the future maybe there will be. The AL usually consults us regarding the connections and communication aspects of online databases or of standalone databases. However, we haven't mentioned or considered distance learners in setting up or running e-resources."* (**Computer Centre Manager IMBSIU**)

Computer Centres Initiatives in Training and Helping DL Stakeholders

Carrying out training programmes is an essential task for a computer centre. According to an interviewee, new hardware and software should be introduced and explained to end-users; hence, providing the necessary training for all users should be delivered by computer centre staff. However, he also believed that DL stakeholders are part of the university community and they should be considered in any training programmes offered by the centre. However, some interviewees were asked about their current involvement in training and in helping DL stakeholders. An interviewee said:

> *No, we don't provide any training or helpline for the DL stakeholders. I think the deanship of DL is setting up its own help desk for all students to help them to get answers to a number of questions regarding studying by distance. The help we give is directed only to university departments (deanships, colleges, departments…etc) including the DL deanship and we have no such helpline directed to help DL stakeholders. (**Computer Centre Manager IMBIU**)*

Another interviewee showed he believed in the importance of ICT in the success of the current DL by saying:

> *"Technologies have given us tools to improve the current DL and we should use them."* (**DL dean at IMBSIU**)

Saudi ICT Infrastructure and DL

As repeated by many interviewees, ICT infrastructure, especially the Internet, is a key factor in the successful delivery of DL since the Internet is considered to be the backbone of running and conducting any advanced DL programmes. Therefore, considering the ICT infrastructure of the university, and of the country in general, is important in judging the likely success of DL as providing DL stakeholders with all the ISs they need depends on the ICT infrastructure and its characteristics. Some interviewees believed that there is no reliable plan for improving ICT in the country, even that the plan to support distance learners with reliable access to online resources is being hindered at the moment. Also, some interviewees believed that the increase of population and the wide geographical spread of the country have played a key role in delaying the use of the Internet which is weakening the ICT infrastructure in many parts of the nation. Moreover, a lack of standards and regulations, or the existence of weak ones, besides the existing censorship laws concerning the surfing of the Internet, are hindering DL

and making it very traditional. So, interviewees were asked about the current ICT infrastructure in SA and how this has been designed to support distance learners by allowing them to gain access to information services off campus. An interviewee said:

> *"The answer is absolutely no. If we compare our country's infrastructure with neighbouring countries, we find it less than what we expect for some reason. Long-term planning or expectations or predictions are not reliable. The population of the country is dramatically increasing and the country covers a very big area with different landscapes. Finally, the regulations and rules of the Internet limit its uses. In addition, slow Internet connections, censorship and high Internet prices are hindering users' efforts to use the Internet as it should be used. As a result, I believe many distance learners cannot expect to benefit from the university services, including the library services, unless the communication in the country improves and obstacles such as slower Internet connections are reduced and we are given some freedom."* **(ICT dept. manager, KAU AL)**

Another interviewee said:

> *"[...] the infrastructure in the country isn't meeting our expectations regarding providing basic services such as online registrations and so on. The Internet is very slow; the regulations (censorship) are hindering our efforts to have access to some sites and so on. Large areas of the country are omitted from Internet services or even from mobile networks. As a result, I have some serious doubts about developing the current DL and we are very behind in providing equitable information services for all students in the country.* **(Computer Centre Manager IMBIU)**

In addition, the DL deanship at KAU mentioned that most of the obstacles facing the adoption of new ICT in the country are related to the Internet infrastructure. He said:

> *"[…] the Internet is slow and it is high cost for individuals. ...many learners can't get Internet access from their small cities or villages."* **(DL deanship at KAU)**

5.11 Current Relationship between Academic Library and DL

Regarding this theme, interviews were conducted with those in high positions in academic libraries and from the DL deanships to clarify the relationship between the academic libraries and the deanships of DL, as well as to investigate their efforts in supporting DL stakeholders. As a result, two different views were expressed, as described below.

Academic Library Staff's Perceptions

A number of interviews were conducted with personnel in high positions in academic libraries such as AL deans, AL deputies and AL department managers some of whom usually set and manage plans to make the library and its services available to all users. Some of these interviewees are in charge of monitoring plans and making sure they are achieved. So, these interviewees were asked to comment on the AL's responsibility for and relationship with DL in the university in order to find out about the level of cooperation that exists between them, if any. Academic library managers stated that there is no relationship whatsoever with the DL

deanship. They even believed that there is no kind of relation with their stakeholders. One interviewee from an AL library said:

> *"[…] We have had no relationship whatsoever with the DL deanship regarding the provision of support for their stakeholders with information services." (AL Deputy at IMBSIU)*

Some AL managers also commented about their library's role in supporting distance learners with the information services available in their libraries. They believed that there are no restrictions for DL learners in using the AL and its services; they can use it at any time they wish, similar to any other users. One of them said:

> *"DL learners can use the library as any student in the university." (AL Deputy at IMBSIU)*

However, in order for the DL learners to use the AL, they have to visit it in person. Also, some interviewees asserted that there are no information services designed to meet distance learners' needs. They agreed that their academic library had no responsibilities, rules, and policies to serve and support distance learners. However, according to some interviewees, several information projects are being organised and these could be very beneficial to those who are off-campus such as distance learners. One of them stated that:

> *"We have developed several archiving projects for many of our library collections and these will be available on the web which can help learners, including distance learners, to use them." (AL Deputy at IMBSIU)*

In addition, AL managers believed that the AL information services department received a number of e-mails, calls and letters asking for information services but he was unsure whether or not these were from distance learners; these were usually answered according to their capacity but, in general, the AL offered no special support for distance learners at this time. He said:

> *"We usually receive several calls and several e-mails asking for information services, and we usually answer them according to our capability; distance learners could be among them." (AL Deputy at IMBSIU)*

An interviewee said that they serve distance learners and support them with the information services they need but agreed that there were no official statistics or figures about the percentage of distance learners who were being served. However, he stated that most services were dedicated to support on-campus users. He said:

> *"Most of our time is dedicated to serve on-campus students." (IS Dep. Manager at IMBSIU)*

Another interviewee believed that information services were provided according to the distance learners' requests. He stated that:

> *"Our efforts that are directed to distance learners depend on their request and their willingness to use the library. We do not have accurate data about them." (**IS Dep. Manager at KAU**)*

In conclusion, in an interview, a librarian commented that the most basic information services that any students should have access to, such as borrowing books, are not available to distance learners unless they pay a certain amount of money. He said:

> *"We don't provide a borrowing service to distance learners and they are treated as guest users!"* (**IS Dept. Manager at KAU**)

☺ DL Deanships' Perceptions

Deanships of DL were approached to comment about their relationship and that of their stakeholders with the AL. One DL deanship reported that there is no relationship between them and the AL, as mentioned above by an interviewee from an AL. He stated:

> *"We have contacts with the AL and we are using some of their resources. However, there is no direct involvement from the library in developing and supporting DL."* (**DL deanship, KAU**)

He believed that a relationship and cooperation with the AL must be created in the near future. Another interviewee mentioned that they use the AL services, including online databases, to support their DL stakeholders; these are usually used by instructors. However, he said that its DL deanship had created its own e-library and allowed its stakeholders to use it which, however, duplicates cost and efforts for both the AL and the DL deanship. Hence, the interviewee was asked about the reason behind the DL deanship's decision to create its own e-library when the AL should have all the databases needed by all university programmes, including DL, and this seems to duplicate effort and waste money. In response, he said he believed that the AL was not doing its job as it is supposed to do:

> *"We are using AL services and its databases to support our learning programmes, but we have created our own e-library. [...] the AL should improve its services to meet the high demand for information services among on and off campus students and among faculties. However, we have a future project to build a portal for the DL and we will include the e-library in the portal. We also work hard to subscribe to databases which are not available in the AL."* (**DL Deanship at KAU**)

5.12 The Current Role of Academic Library in Supporting Saudi DL

To investigate the reported shortcomings of the AL, three groups were interviewed to assess the effectiveness of current academic libraries in supporting and delivering DL resources and materials. The first views were expressed by administrative staff, the second were obtained from DL students and the third from instructors.

Organisational/Administrative Attitudes

An interview with the deputy of the MHE showed that neglecting the role of academic libraries in supporting DL stakeholders is very dangerous and can have a negative effect on the systems' outputs. He said:

> *"There is a fatal problem that you are raising in your research which universities have ignored until now which we have noticed now with the current DL. It is the ignorance of the full engagement of AL and its services in the life of DL stakeholders. In reality, this is a big problem! This kind of ignorance is one of the most dangerous elements in running and conducting DL. DL is one complete set that has to be linked together and to be run and managed to cover all aspects of learning including using the AL. For this reason, I can call DL a "Dangerous Fashion" for those who don't know how to deal with it as a one complete set (universities, instructors, learners, society) and don't know what it is!"* **(Deputy of the MHE)**

Furthermore, the MHE consultant's feeling about the current role of the AL in supporting DL was negative. He believed that, currently, there was no role for the AL in the life cycle of DL stakeholders and its role must be recognised soon. He suggested:

> *"I have seen no existing role whatsoever for AL in supporting DL. In fact, I have never thought about an existing relationship between AL and DL. ...our current DL is dependent on text books and exams which I believe is lacking many angles of education such as interaction and information services. For example, IR and IS should be fully provided remotely and electronically."* **(The MHE deputy consultant)**

In addition, the AL dean at KAU described his library's role in supporting its users. He indicated that his AL provides services to all its users, including DL stakeholders, which were not taken up by many DL stakeholders and not promoted by some of the AL staff. However, the researcher found that the AL dean thought using the AL meant allowing users to enter the library and search its resources, not necessarily providing special services outside the library walls to DL learners. For instance, AL policy does not mention the basic and most obvious right of DL learners to borrow books as a basic example of ignoring this segment of the university community; this is explained later. However, an AL dean described his library's roles, which included supporting DL learners, which he believed his library should do, while the library's policy did not always recognise them. He said:

> *"Our library roles and goals are similar to any AL in the country. Acquiring books and other materials that can satisfy users' needs is the main role. In addition, we are playing the role of the public library by being a national heritage conservation centre in the west region. Nevertheless, we provide our services to all of the university community including DL stakeholders and also to the outside community without discrimination except in some services such as borrowing and accessing databases!"* **(AL dean at KAU)**

However, the dean of the AL at KAU mentioned that DL learners are treated like any other external user; they have no right to many services enjoyed by campus learners, such as borrowing books, unless they pay. He said:

> *"... We have no such services that have been specially designed to support DL".* **(AL dean at KAU)**

A similar view was expressed by the deputy of AL at KAU. He stated that no plans have been set to support distance learners for several reasons. These include shortage of staff, poor collaboration and no formal cooperation with the DL deanship. He said:

> *"[…] there is no single IS designed directly to support off-campus learners, but they can get the same services that an on-campus user can. However, they have to come to the AL! Yes, I understand that distance learners who by nature are away from campus deserve special attention, but currently we can't guarantee it due to shortage of staff and the lack of collaboration and communication with the DL deanship." (AL Deputy at KAU)*

In addition, the AL dean and his deputy at IMBSIU gave a similar response to that explored above with the AL dean and his deputy at KAU. For instance, the AL dean at IMBSIU, as well as his deputy, agreed that their AL was not providing any kind of information services to support current DL learners. The AL dean at IMBSIU said:

> *"[…] at this moment we have no special information services designed for DL, but we serve them as we do any user"*

While his deputy said:

> *"Formally, we don't have any information services designed for DL, but they can use all our services like any student in the university by visiting the AL or its web site." (Deputy of ALs in IMBSIU)*

However, another interviewee believed that the AL web site only provided basic services and nothing more; many others agreed. These services only include searching the OPAC and providing limited access to some databases for certain authorised users, not including undergraduate students (on- or off-campus). A further interview with the departmental managers of information services in the academic libraries of IMBSIU and KAU provided more detail about the daily practice of serving library users. For instance, the department manager of information services at IMBSIU agreed with his managers that no services have been planned for DL which could explain the small number of distance learners using and visiting the AL. He said:

> *"[…] we don't have plans or a written policy to do so; as a result, we don't have any information services directed to DL at this moment even with the new transition in the university to convert current DL to be in e-learning mode. […] distance learners are served as any student with the same services. […] we have no official statistical figures about our clients, but I believe distance learners are less in number than they should be! I can say that maybe they are less than 5% of our customers." (IS dept. Manager at IMBSIU)*

Moreover, an interview with the department manager of information services at KAU libraries showed that distance learners were lacking important support from their AL and he was not sure why. He said:

> *"In fact, we have no information services designed for distance learners even borrowing books and I don't know why. DL stakeholders should have been given more attention compared to on-campus learners. ...using and requesting information services by distance learners is rare and we have no specific statistical figures about it. Their right to borrow books is limited and sometimes*

> *omitted. At this moment, they have no right to access databases from outside and can't explore other resources other than the text books."* (**IS dept. Manager at KAU**)

In addition, interviews with several information science department heads provided a clear picture of the current role of AL in supporting DL as all of these interviewees had worked for several years in the academic libraries as deans or deputies. All of them agreed that Saudi academic libraries were not playing a role in supporting DL. However, one of them believed that his institute's AL is planning in the future to provide information services and support for DL. He said:

> *"Our AL is looking forwards to playing a role in supporting DL. I believe the AL isn't supporting distance learners at this moment as there has been no single service set up to serve distance learners, but I think it must offer this in the future. The AL has just started several projects to digitise several collections to help postgraduate students in their research, and I believe these projects will help in providing information services for DL. In general, a lack of information services, information resources, and not appreciating the role of AL are common among our universities and DL is rarely present."* (**Head of ISD at IMBSIU**)

Another information science department head who had experience of working as an AL dean for several years agreed that no information services were provided for DL stakeholders. He described it as a problem which could be addressed by the DL deanship, the AL, university administration and instructors. He remarked that:

> *"I have worked two years as the dean of AL and I have noticed that there was no special support being planned or designed to support DL and few distance learners use the AL. This problem could result from the DL programs' construction where learners are fully dependent on textbooks and no other activities or assignments force distance learners to use the AL, and AL is lacking the appropriate support from the university administration. Until this moment, I believe use of the AL by distance learners is ZERO and teachers are also part of the problem as they are heavily dependent on using the Internet to find information instead of using the AL."* (**Head of ISD at KAU**)

DL Stakeholders' Attitudes

Several interviews provided a clear picture of the current role of AL and its services in supporting DL stakeholders. Most of interviewees responded that there was not a single IS that had been designed by the AL to support them. For instance, a distance learner from IMBSIU said:

> *"During my 3 years of studying by distance, I have seen no evidence the AL helping me during my current study. I am far away from Riyadh and have no time to visit and use the AL. [...] I haven't seen any advertisement about the AL and its services and I haven't been directed by my teachers to use the AL"* (**Distance learner/male at IMBSIU**)

Another distance learner believed that the AL had not helped him or his friends during his current study. He said:

> *"There is no role for the AL in my and my colleagues' current study. I have visited the AL and found it very boring; it has none of the text books required by teachers. I have tried to use the Internet in the library and I could not because it was crowded. [...] not only that but also library services and other support are being hidden from us, as were the other services and support. ...there are no leaflets or other publications that introduce and explain the AL and its services."* (**Distance learner/male at KAU**)

In addition, a distance learner who was attending exams in Jeddah emphasised the poor role of the AL in supporting his current study and in another interview, a female distance learner at KAU mentioned several problems in using the female branch of the AL. She felt that the library's services were limited and traditional. She said:

> *"Its role is limited to helping on-campus students and teachers only. The AL treats us like any other outside users. We can't easily borrow books and use other materials such as databases. Opening times are limited and can't fit in with my daily schedule. For example, the AL closes at 4 pm and usually they close one hour early as happened to me one time. We were told about the existence of the AL on the first day of my study and nothing more. ...information services that I have seen are limited and very basic such as a circulation desk, old copy centre and a few computers for searching the library catalogue."* **(Distance learner/female at KAU)**

A female distance learner who visited and used the AL at KAU also believed that the information services were limited and unable meet her learning requirements. Also, instructors who teach in DL commented on the current role of AL in supporting their teaching by distance. One instructor had a negative view of her AL as she believed that the AL in her institute was not playing a reasonable role in supporting her teaching by distance for several reasons. She explained:

> *"AL is very important, but its current status here isn't very high and it must work hard to improve its collections especially e-resources in the Arabic language. It needs to be better equipped with the most advanced IT available. It should develop its information resources and keep up-to-date with new resources. The academic library must increase and acquire more resources in more forms such as online resources, video tapes, e-books, and more. It must provide sufficient training in using the library and its IT as well. The AL has to market itself to others including distance learners by applying a marketing strategy and not wait for others to come. The overall information services are less than what we have seen in any regular AL in the west such as America. I have seen some improvement in the AL, but not in a way that can support each single user including distance learners in the country."* **(Distance instructors/female at IMBSIU)**

In short, there was general agreement from all interviewees about the important role of AL in supporting DL stakeholders yet it can be said that no single IS had been designed or planned to be used to support DL and their stakeholders. Despite the new trend among the universities in this study to convert the existing DL to be fully e-learning, nothing has been planned by academic libraries to provide services to support distance learners for several reasons. According to the administrative view, there was little collaboration, cooperation, coordination and formal communication between university departments, allowing the AL to ignore its role in supporting DL stakeholders and hence leaving the problem unresolved. In addition, other factors were behind the failure of ALs in supporting learning and teaching by distance. First, DL regulations do not encourage learners to use the library; second, the Internet has replaced the role of the AL in supporting learning, teaching and research; third, other resources are often ignored when supporting learning by distance where text books are provided; fourth, library policies completely ignore the right of distance learners to use the library services;

fifth, shortages of staff in academic libraries were seen as one important reason for not extending libraries services to serve many users, including distance learners.

DL stakeholders, such as learners and instructors, viewed the current role of the AL as very negative for a number of reasons. The AL's role was seen as helping on-campus users almost exclusively; there were no defined information services to support distance learners. A lack of e-Arabic resources and a lack of the most advanced IT were also among the reasons for the lack of support for distance learners. In addition, there was a lack of training programmes in using the library and its information technologies. Finally, a marketing strategy that could help inform users about the AL's services was singled out as the most important negative factor hindering the role of ALs in supporting DL stakeholders.

5.13 The Future Role of the Academic Library in Supporting DL

The future role of Saudi academic libraries in supporting DL was investigated using plans that were designed to spread AL services and by interviewing key figures in HE. The deputy of the MHE discussed the future of AL services for DL and believed that integrating the services of the AL into the life of DL would not be achieved unless rules and regulations were used to force libraries to acknowledge the right of distance learners to use the AL and all its services. He said:

> *"On-campus learning has standards and regulations that give administrators some confidence that students have used academic support including the AL, which would help in achieving their goals. I am confident and know that making DL a tool to spread HE and make it a way of learning has to be standardized, regulated and controlled to include the use of all academic support including AL services."* **(Deputy of the MHE)**

In addition, the MHE deputy consultant expressed his feelings regarding the future of the AL in supporting DL. He focused on the importance of learning and its elements, including the AL, in the success of DL. He said:

> *"We know that distance learners' ultimate goal is to be successful and gain the degree with less effort and we can't blame them to think like this, but we have to be confident that they have used all learning techniques and support available such as the AL. In DL we must make sure that students have used them and engaged with them in their study similar to on campus students."* **(MHE Deputy Consultant)**

Furthermore, in an interview with the manager of the e-learning and DL centre at the MHE looked at the future role of ALs in supporting DL in the country by saying:

> *"AL is essential, but engaging it in DL is far away and we need to start this trend right now. […] We don't have an e-library among our universities and we need to create this project, but we do not know when! We have a plan in the centre to request from each instructor working with us and who is preparing a module's content to produce a list of references and our role is to make this list available as an online full text for all DL stakeholders."* **(Manager of e-learning and DL at MHE)**

As a further explanation in terms of looking at the future role of ALs in supporting learning, teaching and research in general for all users, the deanship of AL at IMBSIU emphasised the importance of the role of the AL in supporting all users, including DL stakeholders, which has been neglected until now. He said:

> *"Its role is to support university faculties, students and staff with all traditional and non-traditional resources according to their needs. This is the main task of the AL which can help enhance the learning, teaching and research activities in the university. We look for the learning and teaching processes as a continuous operation that needs to be always supported with not only text books, but also with other resources. Recently, we have written a complete strategy for the AL that has been sent to the university administration for their approval. This strategy takes into account supporting the DL. We believe that the AL is an important element of the teaching and learning process and we have to make it part of users' life." (**AL dean at IMBSIU**)*

In an interview with the dean of the AL at KAU, he described his library's plan for the future which was to provide more services to more users, without excluding any segment of the library's users, especially distance learners. However, according to the interviewees, academic libraries were seen as an important element in offering and administering DL so several important steps must be set in place to engage academic libraries in DL. For example, written rules, regulations and plans have to be created to acknowledge distance learners' right to use the library and all its services, just as those who are on campus. In addition, it was clear how important learning and its elements, including the AL were felt to be in the success of DL. So, academic libraries were encouraged by the interviewees to be ready to participate in supporting distance learners by reforming and improving their current performance.

5.13.1 The MHE's Future Initiatives in Supporting DL with Information Services

The MHE, as part of its efforts to develop HE, including DL, has planned certain initiatives to support DL with information services. People from the MHE who were interviewed believed that information services were a very important element in developing and improving the quality of DL. Hence, some interviewees were asked about plans and initiatives that have already been made in terms of supporting DL with information services. The deputy of the MHE said:

> *"There are six ongoing initiatives that have been designed to be used by users including DL stakeholders. Two of them are related to the information services support. First, is the Electronic National Depository Archive which will make a huge amount of information available to be used by users' onsite and off-site. Second, is the creation of an e-library."(**MHE Deputy**)*

In addition, the manager of the national centre for e-learning and DL at the MHE explained that, with its responsibility for supporting DL, several future projects were planned some of which are dedicated to supporting DL stakeholders with information resources. He believed that supporting DL stakeholders with information resources would not be achieved as it

should unless all users value the importance of information resources and services in supporting their goals in teaching and learning by distance. He said:

> *"We have a plan to build an e-books database by subscribing to many useful e-books and it is in its first stage. It is planned to cover all instructors' needs to teach by distance. Each instructor is welcome to participate in choosing the titles. However, we need management change to make instructors, learners, institutes, staff and others participate in supporting, building, benefiting, using and appreciating information resources and use them." (**Manager of e-learning and DL at MHE**)*

Furthermore, he was considering making additional plans to provide more advanced information services to support DL stakeholders, such as translation, e-resources and training in finding and using information resources and services. Hence, the MHE, with its responsibility for developing Saudi HE, including DL, has recently established a unique initiative to support DL. This initiative involves establishing a DL and e-learning centre that is designed to support and develop fully the application of DL and e-learning among all Saudi universities. Among the centre's goals is the creation of several sub-projects (initiatives) to support DL stakeholders with all information services; this was regarded as a very important task for the centre. In addition, there was recognition in the MHE of the weaknesses of academic libraries in SA in providing information services, especially for distance learners, and how the centre could participate in solving this problem. However, valuing the importance of information resources and services on the part of learners and instructors in supporting their goals in teaching or learning was a very important factor in the success of all the initiatives that would support them with such services and resources.

5.13.2 Types of Information Services to Support DL

An important aspect of this research was to look at the current information services that were being provided to support DL and their stakeholders. Investigating the current information services provided for DL stakeholders, as discussed in Section 5.12, willhelp in deciding on the best practice and most useful information services that should be offered to support DL. In this section, several interviews with people from different backgrounds from inside and outside universities were undertaken to gauge their opinions on the information services that should be offered to best support DL stakeholders.

Organisational (Administrative) Views

In this part, a number of interviews were carried out with several key people at the MHE and universities. Interviewees were asked about their thoughts on the best information services that should be provided to support DL stakeholders. These views were expected to help in designing the most appropriate information services for DL stakeholders. For instance, an interview with the MHE emphasised an important issue that needs to be addressed before

deciding what information services should be provided to support DL. For example, understanding the idea of DL and raising the awareness of it in Saudi society is very important for both organisations and individuals. The MHE deputy believed that, in order for people and organisations to benefit from DL, it should be delivered as a blended model, as mentioned in 5.8.1, where learners could benefit from all academic support services, including AL services. The deputy of the MHE also mentioned what information services should be offered to support DL stakeholders. He said:

> *"All services available for students' on-campus have to be available for off-campus students, so we can provide equity in education support and yet make DL similar to traditional education. Nevertheless, we have to benefit from the advanced technologies to help all DL stakeholders to access all IS any time they need which can help to achieve my desire to have blended DL."* **(MHE Deputy)**

In addition, the e-learning and DL centre manager at the MHE agreed with the deputy of the MHE when he said that several important information services should be designed to support DL stakeholders, such as online access to resources and IL. On the other hand, the MHE deputy consultant agreed that several important information services have to be offered to support distance learners and he mentioned a number of them with a strong emphasis on online services.

In continuing the research investigation regarding the most appropriate information services to support DL stakeholders, interviews were also undertaken with two of the new DL deans at IMBSIU and KAU who are responsible for running and administrating DL. They suggested several important services that should be made available to all distance users. The DL dean at IMBSIU for instance said:

> *"[…] all information services available in the AL should be made available to them (DL) to use. They should have online access to databases and other online collections, be provided with interactive WebPages which include several services such as training programmes in using library resources, study skills guidelines, borrowing and renewing books, book reservations, virtual reference desk, and virtual tour of the library. There should be useful interactive tools such as e-mail, fax, telephone, and so on."* **(DL dean at IMBSIU)**

The DL dean at KAU briefly described his thoughts about the information services needed by DL stakeholders and believed translation and establishing a call centre were very important in supporting them. The AL dean at IMBSIU, from his position as the leader of the academic libraries in the university, believed that DL stakeholders were not presently being served by any kind of information services whilst also agreeing that information services should be made available to them. He agreed with the MHE consultant about providing remote services which can be accessed anywhere as learners are distributed all over the country. However, he and other interviewees were very cautious about giving passwords to all users to access online

databases; this was seen as one of the obstacles to providing online information services. He said:

> *"Allowing e-resources (online) to all our users including distance learners is very important and we are going to do that. But we are still concerned about passing and circulating passwords to third parties who are not part of the university unless we come up with a secure solution and save the providers' rights. In fact, we would be willing to create a call centre to support DL, but we need collaboration from the new DL deanship. I believe that DL needs more focus in supporting them with the information services, more than in fact those on-campus students who have easy access to information services any time they want. Indeed, we would be very happy to help all our users equally including DL and we believe it is an essential role of the AL to do so." (AL dean at IMBSIU)*

In another interview, the dean of the AL at KAU provided a similar answer to the one from the dean of the AL at IMBSIU regarding the most appropriate information services for DL; he too expressed the same concern regarding passwords. In addition, interviews were carried out with the deputies of AL deans at IMBSIU and KAU who were in charge of managing and controlling the daily routine work and ensuring information services were being delivered as planned. They were asked about the information services that should be made available to distance learners. The deputy of AL dean at IMBSIU commented on this question by saying:

> *"Access to online databases through our library web site is very important and has to be guaranteed for any user including DL, but we need some cooperation with the new DL deanship to think about it and to set the rules to do it… Translation is a very important service which we can't provide at this moment as it is beyond our duty, but there is a research department in the university which can provide this service but with a charge. A 'Reference desk' designed for DL is a very good idea, but we have so many DL students asking for our services this would force us to provide services for them 24/7." (AL Deputy at IMBSIU)*

The deputy of AL dean at KAU was very enthusiastic about the idea of supporting DL with all information services. He shared similar views with the previous interviewee and agreed that many services should be made available to all DL stakeholders including remote access to resources. The information services department executives, who usually deal with all aspects of information services and have more involvement in supporting users and solving their problems, suggested several services that might be very valuable to DL. The information services department executive at IMBSIU's AL suggested that answering reference questions and offering document delivery services were very important as well as other, more traditional services. Translation was a very important service, for example, as many users asked about it every day.

The information services department executive at KAU's AL also suggested several basic information services that should be delivered to DL stakeholders such as borrowing books, making reservations, learning skills and other information services. The ICT department in each library is very important as it is usually responsible for facilitating access to online

databases and other e-resources so ICT department managers at IMBSIU and KAU libraries were interviewed and asked about what information services they thought might be needed by DL stakeholders. In response, the ICT department manager at IMBSIU, who had a background in library and information science, said:

> *"I'm a very enthusiastic person! So, I want to serve distance learners as much as I can. There are several services I believe distance learners should receive. They should have full access to our databases 24/7 associated with technical support any time they want. Study skills that include writing methods, reading techniques, searching resources, finding resource materials and other information. Also, they deserve to have full translation services which can help them to gain full benefits of databases. "*(**ICT Dept. Manager at IMBSIU**)

In addition, the ICT department manager at KAU looked for other services that might be useful for DL. His daily job was to facilitate the accessing and use of e-resources and also to answer all users' questions and provide solutions to their problems. He mostly agreed with all the information services mentioned above. Interviewing people who were in charge of administrating ISDs in Saudi public universities was also very important in order to investigate their views regarding the information services that should be provided to support DL. Three interviews were undertaken with three ISDs at IMBSIU, KAU and KSU. The head of the ISDs at IMBSIU believed that many information services should be designed to help DL stakeholders to achieve their goals, such as access to full text databases and other services.

The head of Information Science Department (ISD) at KAU had looked at ways of supporting DL stakeholders with the information services they needed. He was the dean of the AL deanship for several years and believed that training and providing continuing training programmes for library staff was a very important task. Such training should be guaranteed so staff are competent in providing any support to DL stakeholders. In addition, he believed all the ISs mentioned in international standards should be made available. He said:

> *"The most important element in supporting DL is to train and prepare library staff to deal with this kind of user. Our AL is short of staff who can deal with this kind of user. For example, many librarians in the AL don't know some important terms such as "DL" or "e-learning". I have suggested to the university president to train library staff to deal with this kind of programmes in order to build a complete picture of DL. I can't segregate on and off-campus learners regarding the kind of library support they receive. All services should be easily accessible by all the university community including distance learners. These services should have access to online databases 24/7, access to digitized library collections, information services desk for distance learners, book reservation, book and other documents delivery, IL programmes, formal marketing and relationships with distance learners, provide study skills on several topics, translation of foreign materials, cooperation with other universities to allow distance learners to use their library services, copy materials, an interactive library web site with many services, and other services mentioned equal to any standards in the world." (**Head of ISD at KAU**)*

The directors of the ICT centres at IMBSIU and KAU who were responsible for applying all new ICT in the university, including the AL, were asked for their views regarding the most important information services that should be provided to DL stakeholders. The ICT centre manager at IMBSIU insisted on the importance of equity among all library users as an

essential fact in serving users. The ICT centre manager at KAU also commented on the importance of remote access to library databases with equal opportunity for all users, including DL students. Other staff from another group of administrators who were in charge of administrating colleges which offer DL studies were interviewed. College deans are responsible for setting rules and regulations inside their colleges and making sure that these rules are abided by in order to meet the colleges' goals, as well as the goals of the whole university. Thus, interviews with three college deans from IMBSIU and KAU were carried out. The dean of the Islamic Foundation College at IMBSIU said that he could not decide which information services were the most useful for DL stakeholders but he thought that basic information services were very important to DL. He went on to say:

> *"I can't decide which is best for them, but any efforts to help and support them will be necessary. ...Regular information services such as answering reference questions, borrowing books, copy services , document delivery, online access to databases, hotline answering service, study skills guidelines and tutorials in using the library, librarians assigned to help and support distance learners and so on." (**Islamic Foundation College Dean at IMBIU**)*

The dean of the Mass Communication College at IMBIU felt that several information services were important. He said:

> *"I have in mind several ISs that distance learners should have as follows:*
> * *An 800 telephone number to answer distance learners' questions;*
> * *An answering machine in the library to direct learners through to library departments;*
> * *Effective e-mail services;*
> * *Mobile text messages about IS or current awareness available in the AL;*
> * *English language translation team support in the library for learners and teachers;*
> * *Guidelines in study skills and how to search different resources;*
> * *Full access to all databases available in the library 24/7." (**Mass Communication College Dean at IMBIU**)*

Finally, the dean of the Economics and Business College at KAU believed that DL stakeholders should have a right to access all ISs available in the AL as part of the university service. He said:

> *"As far as I know, our AL provides several information services, but I'm not sure if they are available for distance learners. Distance learners -as one segment of the university- should receive all information services available for those who are on campus. They should have access to all online databases, have guidelines, tutorials, library fliers, study skills, translation services with help from English language department or deanship of research, answering reference questions, borrowing books, document delivery and any services that may satisfy learners needs." (**Economic and Business College Dean at KAU**)*

DL Stakeholders' (Users') Views

Distance instructors and learners were the most common stakeholders of DL. A number of them were interviewed and were asked their opinions regarding the information services that they feel should be offered by the AL. An interview with a distance learner showed that first he wanted to know what AL services were available; he then mentioned several information services that he wanted to be made available to him, particularly noting services that allowed

him to get hold of textbooks. Another interviewee agreed with his colleague on the importance of the availability of textbooks as they are the only tool to use to prepare for exams. A female distance learner from the IMBSIU, however, believed that AL administrators were the people who should comment on this question regarding information services. However, she insisted on the importance of making resources available for them any time they needed them. She felt that the AL should be able to recall books on her request, especially before examinations.

> *"[…] I need to find resources related to my exams any time I want. I don't come to the library because I usually end up with the regular answer "we don't have them" or "somebody has borrowed them" I need books to be available and if not, I want them to recall them back soon during exam time. The AL should work hard to provide us with useful online resources in Arabic. They should collect all resources related to our study in the Internet and paste them in one location for easy and fast access. They should provide qualified copy services inside the library or copy materials and send them to us anywhere in the country." (Distance learner/female at IMBSIU)*

Another distance learner from the KAU felt that the AL should allow them to borrow textbooks as they were very expensive to buy. He also asked the library to play its role in supporting his study by providing him with CDs containing the module's contents. In fact, building communication channels and creating useful and informative publicity materials and making these available to all users were considered a very important service that the AL should provide. Marketing was a very important activity that the AL should carry out in order to inform users about its services, according to one interviewee. These services and more were requested by a male distance learner at KAU. In addition, he insisted on his right to have more information services and easy access to all AL services for several reasons. He stated:

> *"I believe there should be a huge advertising campaign about the AL and its services. I don't want to go to the Internet and spend a long time looking for free resources related to my study. I need the library to save my time and provide me with full access to all its resources related to my study. They should help me more than on-campus students for several reasons:*
> *- I am 1000 km away from the university;*
> *- I am a busy man studying, working and have family obligations;*
> *- It's not an easy task to look for information related to my study on the Internet or even find text books at book stores;*
> *-We have less chance to communicate with teachers and AL should play a moderator's role between us and teachers and make study resources available in many forms."(Distance learner/male at KAU)*

A female distance learner at KAU focused on the importance of borrowing books without any conditions, similar to on-campus students. In addition, she wanted the AL to build coordination with other academic libraries in the country so she could use them. An interview with a DL instructor highlighted several important services that the AL should provide and make available for all DL stakeholders to use. He suggested first the importance of reforming the AL as an important step in providing information services for all its users. He also

believed that the Internet was going to play a unique role in helping the AL to support all its users including distance instructors and learners.

> *"I need AL to be very professional in serving and supporting its users such as acquiring the most advanced tools and resources. They should provide IL, provide online services, make resources available anytime users want them, equip AL with new IT, and train students including distance learners. Nevertheless, training and continuing education for librarians is important to keep them up to date with new IT so as to help them to provide qualified information services. Librarian continuing training/education will help librarians to build good relationships with users and help them to interact with distance learners who study remotely. Information services must be delivered by the Internet or any other practical tools. AL policies and regulations should be rewritten to include distance learners among its target population." (**Distance instructors/male at IMBSIU**)*

In conclusion, all interviewees were agreed on the DL stakeholders' right to access fully all ISs available in their academic libraries which mean giving equal access to all library users including those off-campuses. They also determined which were the most important services that should be made available as part of the life of DL students. These included, translation, access to online databases from outside, creating a call centre for DL stakeholders in each AL, online reference services, current awareness, borrowing books, information literacy, marketing information services, and well designed WebPages with all services being accessible from them. Table 5.10 presents all the information services that were discussed by managerial personnel.

Table 5.10 Information Services Suggested by Managerial Interviews

Information Services
Full access to all information services including online databases 24/7.
All traditional information services
English language translation support team in the AL for learners and teachers.
Information literacy programmes in using the AL.
Study skills guidelines.
Exams skills guidelines.
Interactive library webpage.
Borrowing books.
Online services such as renewing books, book reservations, virtual reference desk, and virtual tour of the library.
Effective contact tools such as mail, e-mail, fax, telephone.
Call centre at each DL deanship.
"Ask the Librarian" throughout the web.
Library call centre for DL stakeholders (Reference desk designed for DL stakeholders).
Answering reference questions.
Document delivery.
Guidelines in using the library.
A special telephone with qualified staff in the library to receive DL stakeholders' questions and enquiries.
Book reservations.
Technical support.
Writing skills guidelines.
Reading techniques guidelines.
Searching and finding resources skills.
Marketing techniques to inform all users including DL stakeholders (formal marketing and relationship with distance learners).
Qualified staff (librarians) to deal with DL stakeholders and their needs.
Access to all digitised library collections.
Cooperation with other universities to allow distance learners to use their AL services.
Copy materials services.
An 800 telephone number to answer distance learners' questions.
Answering machine in the library to direct learners through to library departments.
Mobile text messages about ISs or current awareness available in the AL.
English language translation team support in the library for learners and teachers.

In addition, learners' and instructors' views of what information services should be made available to DL stakeholders are given below. Several information services were mentioned which are shown in Table 5.11.

Table 5.11: Information Services Suggested by DL Learners and Instructors

Information Services
Publicity/marketing services.
Borrowing an unlimited number of books for an unlimited time.
Reservation book services.
Document delivery.
Important resources such as text books being available any time.
More ISs provided by the Internet.
E-books.
Recall book services for borrowed books.
A portal for all open resources or subscribed Arabic resources available on the Internet.
Improvements to be made to the current copy services.
Remote copy services provided and setting of rules.
Interlibrary loan.
Co-operation with other ALs to allow DL stakeholders to use them.
Information literacy programmes.
24/7 access to online resources.
Train librarians to deal with users including DL stakeholders.
Reform library policy to include distance learners.

However, providing some of these information services could be difficult to achieve for a number of reasons, as indicated by some of the interviewees. These included: technical problems; a shortage of resources, such as manpower; poor collaboration between departments; DL deanships needing to recognise their stakeholders' right to use information services; cultural problems regarding the giving of passwords to others; poor level of requests from DL students to use the AL services; lack of regulations and standards; management change; and the lack of qualified librarians available to support DL stakeholders.

5.14 Plans and Policies to Support DL

Interviewees were asked about their institute's plans, policies and guidelines to support DL to provide them with special information services. Methods of providing information services to support distance learners were also explored including interviewees' opinions and attitudes regarding the idea of alternative solutions for supporting DL in all Saudi HE. Different views from different managers with varying managerial backgrounds were regarded as very important as their views could provide a clear guide to the most appropriate strategies. Hence, exploring academic libraries' plans and policies for supporting DL stakeholders with information services is very important as it will offer indications about the current and future involvement of academic libraries in supporting DL in their universities. For instance, the dean of the AL at IMBSIU mentioned its own library's comprehensive strategy in supporting users, including DL stakeholders for the first time. He said:

> *"[...] AL strategy, which hasn't yet been approved by the university, is considering the right of DL stakeholders for the first time to be served and supported with all information services. We hope that the DL deanship is willing to work and help us to apply this strategy." (**AL dean at IMBSIU**)*

The AL dean at KAU said that his library had no current or future plans to provide special information services to support distance learners in the university, even though the DL has been in existence for more than 40 years. He believed that there was no distinction between on- and off-campus learners in using current information services, while the reality, as indicated previously, was clearly different! However, he blamed the lack of trained librarians in dealing with distance learners' needs and the poor cooperation between them and the DL deanship. He said:

> *"[...] we don't have a plan to offer information services to distance learners, as we do not make a distinction between distance learners and others. Our services are designed to help all users, but we can't design special services for DL at this time unless we are provided with trained staff to deal with distance learners' needs. It is obvious that distance learners deserve special information services that can reach them anywhere in the country, but, as I said, the DL deanship is not keen to work with us to achieve this goal."* **(AL dean at KAU)**

This lack of commitment towards DL was also demonstrated by one of the AL's top managers when he said:

> *"I believe there is a statement in the library policy about distance learners, but I'm not sure what it is."* **(AL deputy at IMBSIU)**

In addition, the AL deputy at KAU clearly stated that there was no article or statement in the library policy regarding distance learners. He said:

> *"[...] there is no article mentioned in the library policy regarding distance learners, but we treat them just as any other user."* **(AL deputy at KAU)**

In the lower level of administration, the ICT dept. manager at KAU academic library was negative regarding his department's current and future plans to support DL due to the lack of cooperation with the DL deanship. However, it was shown that there was a lack of policies and plans on the part of the academic libraries included in this study to support DL stakeholders. However, one library did mention that it had prepared a comprehensive strategy which included some detail about serving DL, which can be seen as a move in the right direction towards serving DL. In fact, the researcher was not allowed to analyse or read this strategy until it was approved by the university administration. Not including DL stakeholders especially learners in library policies causes them many difficulties: for example, not to use one of the most basic services, such as borrowing books, unless certain strict conditions were achieved. In addition, academic libraries were not even able to communicate with distance learners due to the lack of formal and informal channels of communication with the DL deanship. Academic libraries were also found to be not marketing their services to distance learners and hence an important avenue of communication was lost.

5.15 Information Literacy for Academic Library Users

Information literacy programmes are being seen as one of the most important services that academic libraries should provide to support their users, including distance learners as it is a key factor to know about and benefit from the information services and resources that are potentially available. A number of interviewees, including library managers and DL stakeholders, commented on the kind of training they were offering and were being offered by academic libraries. In addition, DL stakeholders expressed their feelings about the kind of IL programmes they had and would like in their learning and teaching.

5.15.1 Current Information Literacy Available

Two groups commented on this theme. The first group was the managerial group who were in charge of the running and administration of academic libraries. The second group was the DL stakeholders who described the kinds of training programmes they would participate in if there were any.

The Managerial Perspective of Current Information Literacy

The dean of the AL at IMBSIU stated that his library provides IL that can help learners to use the AL. However, these training programmes faced many obstacles such as poor attendance. In addition, distance learners were not among those who trained or were provided with any kind of training. He said:

> *"Yes, we usually provide tutorials in using databases by database providers and by trained staff. We always invite many users to attend these tutorials, but we still receive small numbers of people who are interested to know them and use them. We have also prepared a room equipped with several tools to enable teachers and our staff to provide workshops and tutorials in using the library and its services. Also we provide tours for anybody who wants to know about the library and explore its services other than just giving them a new brochure about the library. However, DL stakeholders are completely ignored by their DL deanship and also by their instructors and we haven't trained any of them. I can say that distance learners are forgotten!"* (**AL dean at IMBSIU**)

The manager of the information services department at IMBSIU library stated that his library does provide IL programmes but none of them were directed at DL stakeholders. He said:

> *"Yes, we do. We provide library tours for teachers and their on-campus students and postgraduate students on their request. ...I haven't experienced doing a tour for distance learners and I believe we should do it at least once in each semester."* (**Information services dept. manager at IMBSIU**)

In addition, it was recognised that training in ICT is becoming very important and part of the IL that each AL should offer. The manager of the ICT department at IMBSIU's academic library was asked if his department provided any kind of training in using ICT. He said that they did not provide any kind of training related to this subject. His library provides only a website with some information about the library; nothing was designed to train DL

stakeholders. However, this research did draw his attention to the possibility of providing an online training tutorial for all library users including distance learners. He stated:

> *"We only have the library website which includes contact details for any enquiries. In addition we have just finished designing a brochure for using the library services including databases and other technologies such as the Internet in general but we had not thought to include it in the library website. However, you have brought to my attention a brilliant idea to design training tutorials in using the library and post them on the library website. In addition, you have just reminded me to attach the library brochure to the library website and make it available to be used by all users".* **(ICT dept. manager at IMBSIU AL)**

In the case of the KAU library, the dean described training that included traditional training methods such as a library tour (which was common among all academic libraries included in this study). He believed that there were no training programmes that had been designed to support DL stakeholders to use the AL. He said:

> *"We provide orientation and a tour of the AL for the first week of each semester. This orientation is delivered to anybody belonging to the university especially on-campus users. We haven't designed or made a special tour for distance learners because they are distance learners and we don't know how to help them or even to reach them."* **(AL dean at KAU)**

The information services department manager at KAU library believed that his department was involved in providing basic training methods in using the AL including a library tour. This tour was designed for all users; none of them were designed to support DL stakeholders. He said:

> *"In our department we usually provide a visit tour to all users upon their request such as a schools' tour and sometimes we provide a tour for some teachers and their students. Also, we provide a library tour in the first week of each semester; these tours are usually attended by on-campus students. Distance learners as far as I know aren't required to attend these tours and I have no experience of dealing with them in the past or today."* **(Information services dept. manager at KAU library)**

Furthermore, the ICT department manager at KAU library also stated that they provide training in using the AL, but no web based tutorials were made available for users including DL stakeholders. He stated:

> *"Each year, the library provides an open day for all new freshman students. We provide lectures in all our databases and how to use them. We also have brochure for using databases. However, we don't provide any web based tutorials."* **(IT dept. manager at KAU library)**

The DL Stakeholders' Perspective of Current Information Literacy

DL stakeholders were asked about the kind of training that they had received during their current learning and teaching. A number of distance learners (6 out of 7 interviewed) stated that they had no training in using the AL and its services. One of them said:

> *"No, I don't. I believe training in using the AL is very important as we have had no experience in using libraries in general. For example, our public libraries are limited in resources and buildings and we have no routine experience of using these libraries. In high school I didn't use my school library as I was studying at night when only limited resources were available."* **(Distance learner/male at KAU)**

A female distance learner said that she had had no training during her current study and if there was any, it was only designed for on-campus learners. She said:

> *"No, I don't. I think everything including training is dedicated only to teachers and full time students and distance learners are rarely asked to come to the library."* (**Distance learner/female at KAU**)

In addition, an instructor was interviewed and was asked about his experience in using the AL and its services and whether any training had been offered by the AL during his career. He said:

> *"No, I haven't. I believe our library is completely ignoring this service. Rarely do they provide training in their new services or new resources. I have attended only a presentation about new databases provided by the database broker. I'm looking for the day that I can see our library full of users and full of activities such as IL programmes and scheduled workshops. However, I had training at Colorado university library during my PhD study which has helped me until now to find information."* (**Distance instructors/male at IMBSIU**)

5.15.2 DL Stakeholders' Opinions of Appropriate Training Methods

As many interviewees said that they had no training in using their own AL, they were asked about the training methods that they felt were appropriate for them and how they might be delivered. All interviewees commented on this topic and expressed their attitudes and agreement on the importance of IL in using the AL to support their learning. Several types of training were discussed by interviewees. For instance, a male distance learner at IMBSIU suggested:

> *"[...] I need them to help me to deal with all information services as I am far away from campus and train me in using the Internet and how to find information. They should provide me with guidelines about searching traditional and online resources. Also they should provide me with information about how to study for exams and how to improve my writing skills."* (**Distance learner/male at IMBSIU**)

Another distance learner believed training should be provided from the beginning of DL. She said:

> *"It is a good idea to train all distance learners from the beginning to use the AL and its services. There should be training in searching and locating information. I believe a module in secondary school about libraries and research has helped me a lot in this matter and the university should introduce a module or a workshop in using AL and its services."* (**Distance learner/female at IMBSIU**)

Another distance learner believed that the provision of IL by the AL was very important, not only for his current study, but also for his future studies and career. He said:

> *"I'm planning to continue my education and I believe postgraduate education depends more on using AL. So, I need to be ready for the next stage of study and need to know how to use the AL and to be competent myself to find information and do research. So, I need them to train me in the best way to find books and articles. I need them to train me how to use the Internet for research purposes. I need them to help me to be organized and provide me with some practical advice on writing research, assignments, preparation for exams and other skills. I need to see the library as a training centre for anything related to support my study. This help can be delivered by brochures, face to face training, lectures; web based tutorial, video tape, CD, handouts and more."* (**Distance learner/male at KAU**)

Another female student at KAU explained her need for training in using the AL. She required training to inform her about the services and support that the library could provide for her as a distance learner. She said:

> *"I need training that can clearly explain what I can get from the AL and how. I need something that can help me to explore resources available in the library. However, many training methods could be very useful such as workshops during the semester, brochures or handouts, a library tour, an Internet virtual tour and information about the library webpage."* **(Distance learner/female at KAU)**

An instructor commented on important methods that can be used to deliver IL training. He said:

> *"I need them to provide training in finding information and how to deal with new technologies and databases such as using the Internet, OPAC, access and searching databases and so on. Also, training on the best way to search and know how database features work. Providing face to face training is very important and should be done in each semester. Building a training centre in the library is very important and should be an important part of the library tasks."* **(Distance instructors/male at IMBSIU)**

5.15.3 Information Literacy Modules and DL

Several interviewees recognised the right of distance learners to use the information services and resources available in the AL. This, according to them, should be considered in modules offered by information science departments to their students who may later work in academic libraries. The right of DL stakeholders to be served by the AL, according to the views of interviewees, should also be considered and acknowledged by all information science department graduates who some of them might work in the future in academic libraries. For instance, the heads of information science departments were asked about the role of their programmes' courses in recognising the right of distance learners to be served. More precisely, they were asked if their courses included modules about IL and information services that could be used to serve and support DL and their stakeholders. One of them stated that:

> *"Yes, we do. We offer several modules in information services and information ethics and legislation where we provide our students with full information, knowledge and skills. However, little information is being delivered to our students regarding DL and its stakeholders which we should focus on in the future."* **(Head of ISD at IMBSIU)**

Another head of department said:

> *"We have modules that allow students who are going in the future to be librarians to explore several information services and several scenarios in helping users to use the library. However, there are no modules that focus on supporting or helping distance learners. Modules like this should be made available these days. Our department should offer modules in educating future librarians to deal with distance learners as this kind of education is rapidly growing in our universities."* **(Head of ISD at KAU)**

Another interviewee made comments regarding providing information services courses that deal with DL stakeholders. He said:

> *"We offer courses in information services in general in which we include how to support and serve other untraditional users such as those who have special needs; there is little on serving distance learners."* **(Head of ISD at IMBSIU)**

Another interviewee said:

> *"Yes, we do. However, none of them mention or address issues in supporting distance learners or DL."* **(Head of ISD at KAU)**

From these comments it can be seen that there are no special modules designed to deal with DL stakeholders who indicated early that such services are not available in the academic libraries. So, according to interviewees, the curricula of information science departments should be redesigned to cover new trends and new issues in the country including the kind of support DL stakeholders should have.

In summary, it was clear that traditional IL existed which was designed to help users use the academic libraries. Both libraries provided library tours, lectures on the new databases, brochures, and face-to face-support. However, an open day at the beginning of each semester was organised only at the KAU academic library. These traditional IL programmes were limited and insufficient even to support and satisfy on-campus users, as mentioned by interviewees managing and running the academic libraries. However, DL stakeholders were ignored and not supported by IL. DL stakeholders mentioned several alternatives that could be used and implemented to support them using appropriate IL methods such as brochures, handouts, library tours, web-based library tutorials, comprehensive web pages including information about the library, compulsory lectures and workshops in using the library and its resources, as well as establishing a training unit in each AL.

5.16 Cooperation in Providing Information Services Support

Collaboration and coordination are very important characteristics in building complete and strong information services for all users, as mentioned by many interviewees. From the earlier analysis, DL stakeholders were routinely seen as being ignored and not supported or helped to find and access information resources, services and other learning materials that could help them to support their own learning processes. To assess the importance of collaboration and coordination between academic libraries within universities, such as the deanships of DL, the ICT departments and other academic libraries in the country, a number of interviews were conducted to find out how much collaboration and coordination existed between them.

Cooperation between Academic Libraries in the Country

Cooperation between all Saudi academic libraries could be very useful in supporting DL and to improve information services for all users. The natural relationship between all academic libraries in the country should be strong as all public universities in the country are supervised by the MHE. Cooperation between academic libraries could help all university stakeholders to use all the facilities and services available. This cooperation would be more useful for supporting distance learners as they are usually distributed all over the country. However, an interview with the dean of the AL at IMBSIU demonstrated that there was little cooperation between his library and other academic libraries in the country to support and help learners, including DL learners, to use their services. He said:

> *"[...] there is no policy regarding the co-operation to support DL and there are unwritten guidelines to help in supporting users from outside. We allow students and teachers from other universities to borrow books and use the resources in the library according to some conditions, but we don't give them the right to access e-resources. In our regular meeting with other AL deans we have not discussed any topic related to supporting DL stakeholders."* **(Dean of AL at IMBSIU)**

Furthermore, the dean of the AL at KAU emphasised the importance of building strong cooperation and coordination between all Saudi academic libraries and even extending this to cover all academic libraries in the Gulf region. Even though there was a consortium among all Saudi academic libraries in subscribing to databases, it was not strong enough and some universities still subscribe individually. This cooperation should be extended to cover a wide area of services, including serving other libraries users such as distance learners. He mentioned one example of cooperation existing between his AL and another which he felt was a good start to allow users from both universities to use academic library services.

In fact, a lack of policies and regulations were among reasons for the lack of collaboration and cooperation between academic libraries in the country, and between them and the DL deanships, which badly affected the right of distance learners to use information services. In addition, the lack of regulations, standards and guidelines was blamed as one of the factors affecting distance learners' ability to use academic libraries. The academic libraries included in this study simply ignoring this subject were seen as common practice. However, cooperation among Saudi academic libraries as seen by some interviewees as limited to regional cooperation.

Cooperation between Academic Libraries and DL Deanships

DL stakeholders are part of the university community and should be treated with equity, as mentioned by many previous research studies and by many interviewees in this study. They have a clear right to be treated and served equally with all users in the university. Academic

library services are one important part of the support that should be provided to all distance learners at whatever time the need arises. To make this meaningful, cooperation and coordination between academic libraries and the DL deanships should be put in place soon to prevent a number of negative results: for instance, the largely continuous practice of ignoring of distance learners' rights to be supported with all the appropriate information services needed for their studies. Secondly, this would not avoid duplication in providing information services when, for example, the deanships of DL decided to set up independent e-libraries. Thirdly, distance learners may lose their right to use the academic libraries and their services when duplication occurs between DL e-libraries and academic libraries. Fourthly, money and effort would be wasted by duplication of effort. Fifthly, professionalism in providing information services would be lacking when the DL deanships attempt to support and serve their learners with information services which should be the responsibility of academic libraries. These issues were addressed during the interviews detailed below.

To investigate further how much cooperation exists between academic libraries and DL deanships, a number of interviews were carried out. The dean of the AL at IMBSIU thought that there was no cooperation between the AL and the DL deanship. He believed that the DL deanship had to take the lead to foster formal relationships with the AL and to build cooperation and collaboration to support their learners by providing appropriate information services. He said:

> *"There is no cooperation with the DL deanship to support their stakeholders. We should have strong links and close coordination with them to enhance the learning and teaching by distance to develop DL. The DL deanship hasn't yet consulted us, and I believe DL stakeholders are the fuel that can help to achieve cooperation towards integrating information services in the processes of teaching and learning. However, DL stakeholders are not playing their part to encourage cooperation as a must because they are not voicing their dissatisfaction with the current services."*
> *(Dean of AL at IMBSIU)*

In addition, the dean of the AL at KAU thought that the level of cooperation with the DL deanship was poor because the inherited administrative style in the university meant that cooperation and coordination between departments was limited. He concluded that his AL did not participate in setting or developing the current DL of which information services should be a part. An information services department manager commented on the relationship between his AL and the DL deanship by stating:

> *"[...] we have no relationship as far as I know with the DL deanship. As a result, in my department we have no current or future plan to provide or to design special IS for them."*
> *(Information services dept. Manager at KAU)*

In addition, he said that the lack of cooperation among some university's departments was being blamed for the omission of DL stakeholders' right to use the AL and its services. Finally, the head of ISD at IMBSIU concluded that there was a need to build strong relationships between AL and the DL deanship in order to provide the appropriate services to distance learners.

So, interviewees felt that meaningful relationships, collaboration, and coordination between academic libraries and DL deanships in the universities included in this study were limited or non-existent. The lack of these relationships could be very dangerous and could badly affect the quality of education delivered by distance. However, a relationship between the AL and the DL deanship was seen by many interviewees as a must.

Cooperation between Academic Library and Computer Centres

According to the computer centres' goals, relationships between them and the AL should be predictable. As it is part of the computer centres remit that the AL should be served as well as any other department in the university, computer centre's managers' views were sought. For instance, the computer centres provide the necessary support to the AL according to the centre policy. The computer centre manager at IMBSIU said:

> *"We are, as a computer centre, working as the container of the library servers, the library network, the technical support, provider of PC terminals, and on call maintenance and pre-maintenance. We also set standards for hardware and software applications that should be purchased which usually are requested by the library. We also test samples and install final products for hardware and software applications in the library." (Computer Centre Manager at IMBIU)*

In addition, the computer centre supports the AL in setting up their digitisation projects according to standards and in a way that can be useful. The centre director at IMBSIU said:

> *"We support them technically and provide them with all hardware and software equipment they may need. They are the most knowledgeable about their needs and we support them according to their needs and according to the standards we have." (Computer Centre Manager at IMBIU)*

To gather more detail about the relationship between the AL and the computer centre in the universities, the ICT dept. managers in academic libraries were considered to be very important to the investigation. They were asked about the level of cooperation and collaboration with the computer centre in their universities. For instance, the ICT dept. manager at IMBSIU's academic library believed that cooperation with the computer centre was good. He said:

> *"[…] we have complete cooperation with the computer centre and we have had no conflict with them. They support us technically and we refer to them in any software or hardware failure. They are responsible for providing us with all software and hardware equipment." (ICT dept. manager at IMBSIU academic library)*

In addition, the ICT manager at the KAU academic library agreed with his counterpart in the IMBSIU academic library about the full cooperation between the AL and the computer centre in the university. He explained:

> *"[…] they are responsible for maintaining and developing all information and communication infrastructures in the university including the library. They provide us with training in the use of any new software or hardware. They also maintain our software and hardware facilities regularly or upon our request."* (**ICT dept. manager at KAU academic library**)

Cooperation between Computer Centres and the DL Deanship

Recently, new DL deanships have been established in universities including those in this study. Their role is to spread HE in the country by introducing and applying new learning techniques such as e-learning. This process requires strong and full cooperation between the DL deanships and the computer centres if projects are to succeed. The computer centre manager at IMBSIU asserted that cooperation with the new DL deanship was limited, as the DL deanship had just established. Furthermore, the DL deanship had placed its webpage on an external server outside the university which was considered an inappropriate move when trying to build good relationships and cooperation. He said:

> *"[…] we work with all departments to improve the communication environment in the university. We have not had any meeting with the DL deanship, the library and the computer centre regarding supporting distance learners. However, we are now helping the DL deanship to set up their network. The DL deanship has rented an outside server to publish its homepage* (**Computer Centre Manager at IMBIU**)

In addition, the computer centre manager at KAU believed that cooperation with any department in the university was always possible. However, he mentioned that cooperation between the three departments (the academic library, DL deanship and the computer centre) was not particularly evident.

Summary

Overall, cooperation was common between academic libraries and the computer centres in universities. Cooperation included maintaining, training, setting standards, providing hardware and software, and testing final installations for any new hardware or software for the academic libraries. The computer centres hosted all the AL's main servers. In short, computer centres worked as moderators between end users, i.e. the academic libraries and their suppliers. In addition, computer centres provided budget and cost analysis for the academic libraries during the planning and purchasing of hardware and software resources. Computer centres also worked hard to implement the concept of e-government inside their universities and to include DL and libraries. However, cooperation between computer centres and the DL deanships was limited although this was in its early stages. In short, there was a lack of

cooperation between computer centres, academic libraries and the DL deanships which may have led to a failure to support and serve distance learners' rights.

5.17 Centralisation and Decentralisation of Information Service Support for DL

Centralisation versus decentralisation is a contentious topic and various people who were interviewed had different views. Several interviewees were asked about the best method to serve DL stakeholders. A number of them agreed on the importance of centralisation in supporting DL with information services, while others were in favour of decentralisation where each AL or DL deanship has the responsibility and the commitment to support their own users.

℮ Centralisation

Several interviewees were in favour of having centralised information services to support DL in the country. For instance, in an interview with a DL and e-learning centre manager, he decided that he and his centre were in favour of centralising information services support. He believed that such a centre could provide centralised information services to support DL in the country. He said:

> *"What we are planning to do in the future is to build an information services centre that can support universities and their DL, but I encourage you to start building the information services model which we are afraid to do at this moment as we may face some objections from many universities and from their ALs. What we are planning to do in the centre in the future must be better than what it is in ALs. Academic libraries now provide only traditional information services and resources. […] We would like to build a successful experience and share it with others."* **(National Centre for e-learning and DL manager at MHE)**

In addition, he was very cautious about the idea of centralising information services among all public universities in the country at this moment. He believed centralisation would be impossible to achieve as it could face a number of objections from academic libraries and university administrations. In relation to this positive opinion delivered by the DL and e-learning centre manager at MHE where he recognised the importance of delivering centralised information services for DL, several other interviewees were in favour of centralisation. For instance, the AL deputy at IMBSIU said:

> *"What we need now is an information centre which can achieve coordination and cooperation between DL deanships and academic libraries in the country. This idea will eliminate duplication in providing information services and resources which could be cost effective and make good use of the resources available."* **(AL deputy at IMBSIU)**

Another interviewee felt that the centralisation of information services for DL in the country would be very useful and could solve some of the current problems of academic libraries.

Having said this, the centralisation of support services for DL is unlikely unless there is effective cooperation between universities, academic libraries, DL deanships and the centres. The information services manager at KAU academic library supported completely the idea of centralising information services to support DL and he agreed with the previous interviewee by saying:

> *"It is a good idea to centralise information services for DL in the country. This centre may not be able to cover and support all DL stakeholders in the country. […] cooperation between the centre and ALs must be ensured and clearly presented to make the centre successful. Cooperation will help the centre to benefit from resources available in ALs and from their experience (the centre should not start from scratch).* **(Information services dept. manager at KAU)**

Another interviewee believed that centralisation would be a useful idea and could extend its benefits to include on-campus learners as well as DL. He believed that administration is a very important step in the process of centralising information services. He stated:

> *"Centralisation of information services to support DL is a brilliant idea, but the management of this centre may be complicated to manage (who is responsible for doing things and funding the centre…..etc). I am positive that centralisation will help even on-campus learners and create strong information services for all users compared to what is going on in ALs."* **(ICT dept. managers at IMBSIU AL)**

Furthermore, the computer centre manager at IMBSIU was in favour of the idea of centralisation as it is a way of uniting all Saudi public universities. Centralisation would prove to be cost effect, reduce duplication in work and resources, and save staff time. A college dean was interviewed and agreed with the idea of centralisation even if it had some disadvantages. However, he insisted that DL stakeholders must participate in setting up the centralised information services. He said:

> *"Centralisation over decentralisation has some pros and cons. Building centralised information services to support DL is useful as DL is being developed right now in some universities and will be soon in others. This idea would improve DL, but it may conflict with ALs' efforts. However, current DL stakeholders should be consulted and participate in developing this idea."* **(Islamic Foundation College Dean at IMBIU)**

The dean of the Mass Communication College at IMBIU expressed positive feelings regarding centralising information services to serve DL. He believed it would improve the DL system, not only for learners, but also for teachers, and would help in limiting duplication in acquiring information resources. Centralisation would also help to widen the learners' and teachers' horizons by enabling them to choose from multiple resources. The centre might also improve DL stakeholders' ability to search and locate information by providing them with appropriate IL programmes. In contrast, another college dean was not completely satisfied with the idea of establishing centralised information services to support DL in the country, even though he believed that any initiatives to support DL would be welcomed. Hence, he described the benefits of centralisation by saying:

"I am not sure about this idea as it may face many objections, but I am very happy to hear any initiatives to improve current DL. I'm confident this centre will be a useful contribution to the DL community. This centre would be useful for the ongoing plans to improve the current DL system. It can be also suitable for other universities to plan to establish DL." **(Economic and Business College Dean at KAU)**

Information science department heads were among those who commented on this topic. Two out of three of them agreed on the importance of centralising information services to support DL. One of them who had worked as the AL dean for several years agreed with the idea of centralisation with only one condition: the government has to fully support the idea. He said:

"I completely agree with the idea of establishing this centre if it gets all the support needed from the government. This centre would be the only fast and reliable solution for supporting DL stakeholders. They have been ignored for a long time and the time has come to support them. They must be –as we are in the 21ˢᵗ century- recognized and served as any user. Academic libraries have ignored them and I believe this centre will be a useful tool and will encourage ALs to work hard to support their users including DL. AL in its present condition can't support its on-campus users with good quality information services, so how can it extend its services for off-campus?" **(Head of ISD at KAU)**

All the DL deans were happy to establish centralizsd information services to serve DL stakeholders. One of them was very optimistic and he offered several advantages of centralisation:

"I fully support the idea of creating an independent information services centre to support DL. In fact we need to have full cooperation with the National Centre for DL and e-learning. Today, centralisation in supporting DL projects in the kingdom is very important. However, there are many advantages of centralisation in supporting DL as follows:

- *Creating a centralised e-library which can be run by the National Centre for DL and e-learning to support DL in the country will be cost effective and save AL money and effort. For example, instead of creating our own e-library with its information services and other universities creating their own as well as supporting their own DL, the centre can provide resources and information services to support DL in the country;*
- *Centralisation will ease the idea of introducing DL;*
- *Centralisation will encourage other universities to start their DL without obstacles;*
- *Centralisation will recognise the learner's right to access information resources and services."* **(DL Dean at KAU)**

℮ Decentralisation

Some interviewees were in favour of the decentralisation of information services. For instance, an interviewee commented that the centralisation of information services to support DL would not be easy to achieve as it is very hard to establish and build information resources and services from scratch. He said:

"It is very hard and risky to start from zero to start a centralised information services for all universities in favour of supporting DL, but coordination and collaboration between all ALs is the key issue. We now have a consortium among all Saudi public universities in subscribing to databases and it is having some difficulties. What we are dreaming of is to have one portal for all ALs in the country." **(AL Dean at IMBSIU)**

The AL dean at KAU was very cautious and not optimistic about centralizsng information services for DL in the country for several reasons, even though he was, to a certain degree, in

favour of centralisation. Limitations and duplication were among the reasons he did not agree with the idea of centralizstion. He believed that it would not be easy to avoid duplication in acquiring information resources and subscribing to databases among academic libraries in a centralised solution; as a result, duplication and waste of money would be evident. DL stakeholders also would be left to be served by the centre and their right to be served by their own AL would be limited or ignored, which then reduces alternatives in finding information. Hence, he believed each AL should be responsible to serve its users, including DL stakeholders, individually. He said:

> *"It isn't a bad idea to build an information centre designed to serve DL and provide information services to them. Centralisation of information services will serve only DL and will ignore others! This can lead to duplications in subscribing to databases. Databases available in this centre will be limited to certain databases that can support only DL and their subjects. However, coordination between ALs and DL deanships and the centre must be achieved first in order to eliminate effort, duplication and interruption. In fact, AL must be responsible to offer all information services to all of its customers including DL especially with the advance of CIT."*
> *(AL Dean at KAU)*

The AL deputy at KAU agreed with his dean regarding the obstacles that might face the idea of centralisation. He thought centralisation would attract an important part of their customers who they should support. The idea of centralisation should be only used to serve the purpose of establishing and creating standards, rules and regulations for serving distance users and then allowing academic libraries to apply these rules and standards to provide qualified information services to DL stakeholders. He commented that:

> *"As a manger in AL, centralisation will isolate one important segment of our users to be served by others while we are dedicated to provide services to all users including DL. I believe academic libraries should be responsible to provide full information services to DL stakeholders. Decentralisation of information services will not allow libraries to reject any distance learners from using their information services by saying go and get the help from the centre! Yes, centralised information services will be cost effective and may provide qualified information services to DL, but I can't imagine the application of this centre and the reaction of universities! What is an important task for establishing this centre is to be responsible in focusing on setting rules, standards, and cooperation and coordination between the centre and academic libraries."*
> *(AL Deputy at KAU)*

Although most of the information science department heads agreed with the idea of centralising information services to support DL, one of them, however, had a different idea. He completely agreed with the comments of the deputy of the AL at KAU, believing that individual universities should be responsible for supporting their communities including DL; he felt that academic libraries should play their roles in this process and not abandon their responsibility.

> *"I'm not fully supportive of the idea of centralising information services for DL. Centralisation could be a very important method to support, improve, develop, consult and accredit DL in the country. Each university should support its community including distance learners with all kind of support including information services. No single service should be taken from the university library. Universities must have commitment to support their community, including DL."* **(Head of ISD at IMBSIU)**

Summary

It has been recognised that a number of the interviewees were in favour of centralisation (building an information centre for supporting DL) for several reasons while others believed in decentralisation. The advantages and disadvantages of centralisation, as extracted from interviews, are summarised in Table 5.12.

Table 5.12: Advantages and Disadvantages of Centralisation

Advantages	*Why*	*Requirements*
Eliminate duplications in services and resources; Provide cost effective resources; Transfer its services to others as well as distance learners; Provide reliable IS supported with easy access to many reliable information resources; Reduce plagiarism when only reliable information resources are offered and ease of access; Could concentrate in supporting DL; Improve the quality of teaching and learning by distance, and provide continuous positive contributions to the development of DL; Quick solution in supporting DL users; Unity among academic libraries, DL deanships, and universities; Establish collaboration among Saudi public universities; Focusing on the importance of training and information literacy in benefiting from central resources and services; Useful for universities planning to establish new DL; Reliable solution; Support in spreading the idea of DL in society; Support in spreading the idea of DL among other universities; Reduce some obstacles related to the topic of information services which may face current and future universities in running, managing and developing DL; Build and encourage the idea of equity between on-campus students and off-campus students especially female students; The ability to hire qualified information services specialists who are able to manage and deal completely with new ICT and the English language.	Current AL does not have the ability to support DL stakeholders as it should be; Will help ALs to focus their efforts to support on-campus users; It is the time to acknowledge DL stakeholders' presence; University regulations are not supporting the idea of hiring staff in libraries who are qualified in ICT or the English language; Saudi universities are increasing DL and new universities are required to set them up which need immediate information services support.	Coordination and cooperation between DL deanships in universities, academic libraries and the suggested information centre must be ensured. DL stakeholders should be part of planning and building the centre. Needs full support from the government.
Disadvantages	*Why*	*Requirements*
Hard to manage; Hard to fund; Conflict with academic libraries; Distance learners are library users and should be served by the AL; It will take away some of the academic library users; Could waste money and effort; Duplication could happen; Could cause IT problems regarding traffic jam in the flow of information **;** Hard to succeed due to the current weakness of the ICT infrastructure in the country (limited/slow Internet).	Build conflict between academic libraries and the centre. AL should have the responsibility to support its users including DL stakeholders. Centralisation could be useful in supporting, developing, consulting and accrediting DL in SA and not supporting distance learners with information services. .	

5.18 Information Services Models to Support DL

In conjunction with plans and policies, deciding which way to deliver information services to all DL stakeholders in the future was a very important theme to be investigated. A number of interviews with those in managerial positions were completed. One of the interviewees emphasised the importance of using the Internet to deliver information services for DL. He suggested:

> *"Applying and using the Internet is a very important tool to be used to help in supporting DL. Library websites should be developed and equipped with all services according to standards. The library website should be linked directly with the DL deanship home page."* **(AL Deputy at IMBSIU)**

The AL deputy manager at KAU was very cautious when commenting on the question of DL. He believed that deciding the best way to serve DL should be a matter of planning and cooperation with the DL deanship to set standards and guidelines in providing information services for DL. He added:

> *"We can't decide these methods or services by ourselves! We need help and cooperation from the DL deanship to decide on these issues. In addition, we need first to set the guidelines and standards to start offering information services for DL."* **(AL Deputy at KAU)**

Other interviewees, such as the information services dept. manager at IMBSIU, were in agreement with the AL deputy at IMBSIU regarding the importance of using the library website to serve DL. The information services dept. manager at KAU also agreed with the previous interviewee regarding the importance of the Internet and the library webpage to serve users, including distance learners. He said:

> *"[...] many information services should be provided to all distance learners and the most important service is allowing them to borrow books. In addition, the library webpage should be attractive and active as a way of linking distance learners with all our services and resources."* **(Information services dept. manager at KAU)**

So, there was general acceptance amongst interviewees about the importance of the Internet to deliver and serve DL stakeholders. Comprehensive AL web pages were highlighted as a way to provide information services to serve DL. Currently, AL web pages cannot provide this support as they lack many services. Nevertheless, policies, guidelines and standards to support DL with all the necessary information services which are currently lacking were considered very important.

However, all interviewees in managerial positions were asked about their opinions regarding the best way to support and serve DL stakeholders with information services. Six alternatives/solutions were presented to each interviewee using a Likert scale and they were asked to rank each option. These alternatives/solutions were as follows:

1. The AL should be able to extend its services for all of its users, including DL stakeholders.

2. Academic libraries should hire an external information service provider in order to fulfil DL stakeholders' needs.

3. The current services provided by the AL are satisfying DL stakeholders' needs.

4. A consortium among Saudi academic libraries should provide all the information services needed by DL.

5. The Deanship of DL in each university should create its own e-library to support its stakeholders.

6. The National Centre for e-learning and DL in the MHE should have the responsibility to support DL stakeholders with all the information services they need by creating a centralised information services centre.

The result of the analysis as illustrated in Table 5.13 showed that decentralised information services, with individual academic libraries providing and supporting DL stakeholders with all the information services they required, was the most popular option with 18 out of 23 respondents ranking this first. The second ranked alternative was to establish a consortium among all Saudi academic libraries to provide all information services needed by DL (16 out of 23). The third ranked alternative was in favour of centralisation. Fourteen interviewees out of twenty three agreed with centralised information services support for DL. This would be achieved by the National Centre for e-learning and DL in the MHE which should have responsibility for supporting DL stakeholders with all the information services they need by creating a centralised information services centre.

Table 5.13: Interviewees in Managerial positions' Responses Regarding Information Services Solutions

Statement		Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Rank*
The AL should be able to extend its services for all of its users including DL learners.	N	2	1	2	7	11	**1** **(78.2%)**
	%	8.6	4.3	8.6	30.4	47.8	
A consortium among Saudi academic libraries should provide all information services needed by DL.	N	4	2	1	8	8	**2** **(69.4%)**
	%	17.3	8.6	4.3	34.7	34.7	
The National Centre for e-learning and DL in the MHE should have the responsibility to support distance learners with all information services they need by creating a centralised information services centre.	N	4	1	4	5	9	**3** **(60.7)**
	%	17.3	4.3	17.3	21.7	39.0	
The Deanship of DL in each university should create its own electronic library to support its stakeholders.	N	7	3	3	5	5	**4** **(43.4%)**
	%	30.4	13.0	13.0	21.7	21.7	
Academic libraries should hire an external information services provider in order to fulfil DL learners' needs.	N	7	6	4	1	5	**5** **(26%)**
	%	30.4	26.0	17.3	4.3	21.7	
The current services provided by the AL are satisfying DL students needs.	N	8	5	7	3	0	**6** **(13%)**
	%	34.7	21.7	30.4	13.0	0.0	

❋ Ranking is based on the overall percentage of interviewees' agreement (agree and strongly agree) regarding their preferred ISs models to support DL.

In more detail, several interviewees commented and explained their views. The deputy of the MHE believed that centralisation, by creating a unique information centre to help DL stakeholders to have guaranteed access to information services and resources, is the only way forward at the moment as many universities are struggling to act in this matter. He said:

> *"This is a very useful alternative and can help to improve the current DL. The e-learning and DL centre can play this role and help other universities to start their DL with help provided by the centre."* **(MHE deputy)**

In contrast, the MHE consultant was against centralisation in Saudi HE as it could weaken competition and innovation between universities in providing services to their users as stated above. However, he suggested supporting DL by creating an accreditation and quality assurance centre to set rules and standards to approve DL. In addition, an interviewee insisted that academic libraries should be a resource for all users, including DL stakeholders, or centralisation will be the only solution. He said:

> *"Academic libraries have to be willing to improve their current services and provide new services that can support all users including DL stakeholders."* **(National Centre for e-learning and DL in the MHE)**

Overall, two out of the six options were ranked higher. First, the majority of interviewees agreed with the idea of the AL being completely responsible for providing information services and resources for all DL stakeholders. The second option was in favour of building

an information services centre dedicated to supporting DL stakeholders with all information resources and services. A middle ground suggested decentralisation but with the setting of standards by a centralised body.

5.19 Suggestions and Comments

At the end of each interview, managers and DL stakeholders were given the chance to comment and provide any suggestions related to the research topic. These comments and suggestions can be divided into two categories as follows:

@ Managerial Comments and Suggestions

The deputy of the MHE concluded his interview by focusing on the users' right, including DL stakeholders, to use the library and the role of the AL in making sure users had this right. He also encouraged ALs to subscribe to more online databases and allow all users to access them. He said:

> *"AL should facilitate information services and create a useful environment to allow users to benefit from its information services by allowing users to use them from outside. It should also subscribe to more databases especially e- journals and allow users to use them when they need. Providing information services for DL is a "must" and the AL should train users how to use them. Nevertheless, it should combine that with tutorials in how to get the full benefits of resources available by the library for all users and allow them to have "easy access" to all information resources."* **(MHE Deputy)**

The consultant from the MHE emphasised that academic libraries should start to build their own e-library. He said:

> *"Each AL has to build an e-library which I believe is more important than the traditional library. Copyright can be sorted out by the library, vendors and publishers. We should plan from now to ask for a digital copy for each book the AL buys. This will make all books available for all users including DL. Supporting e-libraries is a must and must be accomplished first if we want to offer DL."* **(MHE Consultant)**

In addition, the manager of the e-learning and DL centre at the MHE believed that his centre would be a unique resource for DL in the country and each university should benefit from their experience. He stated:

> *"We would like to build a good experience in supporting DL in SA and we would like to share our experience with others to improve the current DL in the country."* **(Director of the National Centre for e-learning and DL at MHE)**

Furthermore, the dean of the AL at IMBSIU concluded that he is supporting the idea of providing DL stakeholders with all the information services that can be made available. He said:

> *"With the ongoing plans and projects regarding spreading DL as a solution for a shortage in resources and instructors and as a solution for women to continue their education, AL services are very important and must be considered in running DL. Academic libraries with all their traditional and non-traditional services have to be an effective part of DL. We are planning to*

evaluate our services and we are planning to improve our service quality which has to include supporting DL stakeholders with good quality information resources." **(AL dean at IMBSIU)**

In an important conclusion, the dean of academic libraries at KAU insisted on the importance of equity between all users. He said:

> *"We should not distinguish between on and off-campus students in providing them with information services. The AL should provide the services to all users and AL should be supported by the university administration to do so."* **(AL dean at KAU)**

Reading and using libraries were factors that some of the interviewees mentioned. One of them said:

> *"I have one important point regarding two cultural problems. First is reading and the reading habit. Second, the use of academic libraries especially among on-campus students who aren't meeting our expectations and this can be seen by the low rate of AL usage. If this is the case, what can we expect from distance learners who are at this moment rarely using the AL services. In fact, distance learners should be given more attention than on-campus users and should be supported with all information services as they are away from campus and they are usually in rural areas."* **(Deputy of AL at IMBSIU)**

The dean of the Islamic Foundation College also concluded his interview by mentioning the importance of reading and libraries in general, and also the importance of ICT in supporting learners. He said:

> *"There are two cultural problems with reading habits in general and also with using or visiting libraries. New technologies have to be used to run, manage and deliver DL. Information resources are a very important element in DL and should be presented. I encourage DL instructors to design and produce well written module contents which include full references that can help to widen learners' knowledge."* **(Dean of Islamic Foundation College at IMBIU)**

So, stressing the importance of reading in society would enhance people's ability to use libraries and find information (Eyre 2003). In addition, the deputy of the AL at KAU believed that the role of the AL is crucial for all users. He said:

> *"AL's role is very crucial to anyone including off-campus learners and the AL should be supported with money, staff, technologies, and buildings to carry out this role. We hope to improve our services to reach all our university community and we wish to have coordination and cooperation with the DL deanship to support their stakeholders with all information services according to high standards which can help to increase the quality of its outputs.* **(Deputy of AL at KAU)**

Shortages in resources were one topic commented on by the manager of information services at IMBSIU. He said:

> *"Our library's role is huge: to serve all of its users including distance learners and we are eager that we can serve all of them. However, with the existing resources I can't guarantee that we can serve them according to the best standards. We request more trained staff, equipment such as faxes, computers, high speed Internet, scanners, and policies and guidelines to do the job."* **(IS dept. manager at IMBSIU AL)**

The interviews often served to raise the issue of the importance of academic libraries to DL stakeholders. The manager of information services at KAU said:

> *"I hope that you will be able at the end of your research to reach a conceptual and practical solution to support DL in the country which can support their learning. In this interview, you have reminded us about distance learners and we have to do something to serve them according to our current resources and I will try my best to raise this issue among our library administration and among my staff." (ISs dept. manager at KAU AL)*

An enthusiastic ICT dept. manager at IMBSIU library concluded his interview by indicating the lack of recognition on the part of the library to the importance of ICT by failing to create an official ICT department in the library; he also pointed out that their marketing techniques were poor. In addition, shortages of qualified staff in ICT and in English were problems he also emphasised. He said:

> *"We are now moving to become an e- library and we need staff who can deal with technologies. I and my other three colleagues are not able to do the entire job! Also, there is no well defined department called "ICT dept." and the library administration has to work hard to officially recognize this department and recruit qualified staff in ICT and English that can work and deal with users. In addition, AL's administration has to work hard to market its services among all users including DL. I also encourage the library administration to work hard to make visiting the library or using the library website more attractive and a more enjoyable experience for users... For example, the university has been recognized by others by locating a bank branch which provides banking services. In contrast, I need the AL to be a key factor in attracting users including DL to use the AL and its services and benefit from library resources." (ICT dept. manager at IMBSIU AL)*

In addition, the need for collaboration, coordination and cooperation was among the most important issues identified by the ICT manager at KAU library. He believed that saving time and resources would result from coordination between the AL and other departments in the university including the DL deanship. He said:

> *"I hope to help build strong relationships and cooperation with all deanships, colleges and departments in the university including the DL deanship to eliminate duplication, waste of money and waste of effort and users' confusion and hassle between the AL and the deanship as the deanship has its own e-library." (ICT dept. manager at KAU AL)*

The computer centre manager at the IMBSIU hoped that the ICT infrastructure in the country will be improved soon to meet users' expectations. He said:

> *"It is a very interesting topic to be addressed and I hope that we can have an ideal DL across the country that can satisfy users' needs and apply high quality standards. I hope also that the ICT infrastructure in the country will soon improve to meet all users' expectations including DL stakeholders across the country." (Computer Centre Manager at IMBSIU)*

One of the information science department heads suggested that the AL is very important in supporting DL and the AL should be supported with all resources. The university's administrations attitude towards the AL must change to become more positive about its role. He said:

> *"AL is a very important element in supporting DL. It still needs to be supported by an adequate budget, qualified staff, and buildings. In addition, some people in the university still have a negative attitude about the AL, especially top managers, which hinders the AL from being improved and fails to achieve its goals in serving all users. For instance, some university top managers are using the AL as a punishment tool for those who make mistakes or those who have personal problems." (ISD Head at KAU)*

Finally, the DL dean at KAU emphasised the importance of DL for society and commented on the role of the AL and its information services in supporting DL which can make it similar to on-campus learning. He said:

> *"As a university teacher and educational manager, we have a responsibility and mission to provide qualified higher education for all the community in the country, and DL is promising to meet part of this mission. HE by distance will help in increasing people's awareness and elevate their knowledge, skill, and improve their cultural understanding. AL is a very important factor in providing DL similar to on-campus education. We have created our own e-library, but we still need to have more advanced library services which can be achieved through the National Centre for DL and e-learning. AL is very important in supporting DL and we should maintain a strong relationship with them."* (***DL dean at KAU***)

Overall, many comments, suggestions, concerns and desires were obtained from different key figures in the MHE and universities who were interviewed for this study. All of them agreed on the importance of an AL for any university. The AL is seen as a source of knowledge, not only for on-campus students, but also for off-campus users. The interviewees concluded that the current AL services did not meet users' expectations and ignored DL. The need for equity in using ALs for all users, including DL stakeholders, was one of the most important outcomes that most interviewees were looking for. Some of those interviewed were in favour of academic libraries building their own e-libraries to serve their users including distance learners. In addition, sharing information, experiences and building communication between universities, academic libraries and DL deanships to support DL stakeholders in the country were strategies that were thought would improve the DL experience. A lack of reading and the use of academic libraries were among the concerns mentioned by some interviewees. Applying and using ICT tools to run and support DL was one of the participants' recommendations that should be implemented. However, a shortage of skilled human resources was one of the concerns that ALs were facing in their attempt to improve their services to DL. An important message needs to be delivered to the university administration regarding the important role that academic libraries are playing to support the universities and their communities including DL. It was also hoped that university administrations would change their negative attitude towards the library from it being seen as a place of punishment to being a place for building knowledge and skills and for supporting the whole university community. However, results showed that AL administrators have to recognise that their departments need staff and equipment in order to provide good services, whilst still recognising that there does need to be some evaluation of the services being offered.

An important result regarding supporting and serving university users, including DL stakeholders, was to develop a marketing strategy that would inform users about the AL and its services. Nevertheless, coordination, cooperation and collaboration between the AL and

the DL deanship have to exist in order to support DL stakeholders and recognise their rights, as was often mentioned in the interviews. In addition, improving the ICT infrastructure in the country quickly and efficiently is crucial in supporting DL. Finally, one interviewee believed that this study was a "wake up call" and all those who were involved in DL had a role to play in its improvement.

DL Stakeholders' Comments and Suggestions

Several comments and suggestions were also offered by some DL stakeholders. For instance, a distance learner finally emphasised the importance of the support that should be available in their universities in order to help them pass their exams. This support included borrowing books and providing copy services. He said:

> *"I need many things that can help me in studying for exams and also for preparing my research assignment at the end of my year 3. I need the library to help me in my study by allowing me to borrow books and delivering them to me. I need them to answer my calls and provide me with copies of articles and other materials. I usually call the AL without them answering my calls and if they do answer I get nothing from them, just promises."* **(Distance learner/male at IMBSIU)**

In addition, a distance learner suggested that the academic libraries should digitise all of their Arabic collections, especially text books, and make them available on the web. He insisted on easy and problem-free access to all the information services and resources available in the library. He suggested that:

> *"I need the AL to make all study materials available in digital form and make them available on their web site during the semester 24/7. I have a dream to have full access to all information services without leaving my room! I don't want to die to get the information. I believe that part of our right as students is to have access to all information resources and use them any time we want. There should be strong regulations and guidelines to solve our current problems including getting information services from the university. We are ignored and are patient but we wonder how long it will take to sort this out for us and those who will come after us."* **(Distance learner/male at IMBSIU)**

Graduating from DL with a high GPA was also one of the dreams of one female distance learner. This dream, as she mentioned, would not come true unless information services and resources were made available and easy for her to use. She said:

> *"Finishing my study with a high GPA is the only desire that I have in mind. Any useful support that can achieve my dream should be put in place and introduced, including AL services. Graduation with a high GPA will ease my efforts to find a job. I have studied to graduate and find a job and I believe my chances of finding a job will be worse if I get lower grades, so the IR and IS provided by the AL must be made available for us to use as for any student in the university."* **(Distance learner/female at IMBSIU)**

In addition, creating DL support centres all over the country to support distance learners was one of the suggestions made by one of the distance learners. DL support centres, as stated by the interviewee, could help DL stakeholders to acquire information resources and find all the

information he needed regarding his current study by distance, including textbooks and other information resources and services which now seem very hard to find. He said:

> *"We deserve some attention regarding our needs. I need to get textbooks, other resources and information as fast and as easily as possible. Creating several centres in the country to support us with all information services related to my study and other services would be very useful. Services shouldn't be only based on the Internet, but they should answer our calls and e-mails and sometimes train us in using modern technologies to find information. I hope that these centres will not be fully dependent on the internet as it is still very slow and costly."* ***(Distance learner/male at KAU)***

Another distance learner considered his own problems with his manager at work as he was not granted official leave to attend exams. He believed that clear and strong regulations should be made to save his time and give him his basic rights to have easy access to education during his career. Nevertheless, ready-to-use resources and regular assignments should also be offered to support such study. He said:

> *"I need very clear regulations about our study system! For instance, we need regulations that can allow me to attend exams without bargaining with my manager. We also want materials that are easy to use and made available from the beginning of the semester. There should be frequent assignments to keep us up to date and ready for the final exams. "****(Distance learner/male at KAU)***

In addition, centralising information services and resources for DL would be a very useful idea, as was suggested by one of the learners. She insisted that academic libraries must reform their current policies and objectives in order to serve her and other distance learners more effectively. Alternatively, creating a specialised information centre that would concentrate only on helping DL stakeholders to acquire the necessary information services and resources they need, could be a response to the existing failure of academic libraries to serve DL stakeholders. She said:

> *"I wish that academic libraries would reform their policy and provide us with all the IS that is available. Creating a central IS for all distance learners or considering supporting them by any mode would be very nice for me and other colleagues as there is no special IS for us in the AL. In addition, this would be very useful, especially as we are female and are limited in our ability to travel and visit the AL. I'm positive AL services could improve my study and save my time and money to find books and other resources from other locations."****(Distance learner/female at KAU)***

Finally, an instructor suggested that more attention should be given to supporting DL stakeholders with all the information services and resources available in academic libraries. For instance, implementing and using marketing techniques should be an important part of the daily work of any AL to inform all its users about its services. Furthermore, using ICT and offering online services from the academic libraries must be guaranteed for all users, including DL stakeholders. The instructor stated:

> *"There should be more concentration on the importance of AL in supporting distance learners as it is the primary resource of information for them. AL should have a full marketing strategy to inform its users, including distance learners, and should acquire all the information resources*

*that can be accessed remotely. For example, there should be online resources and web based materials that can be used by distance learners 24/7. "(**Distance instructors at IMBSIU/Male**)*

Summary

Several issues were raised as a result of conducting and analysing the interviews with respondents. The current Saudi HE system was explored including its problems, challenges, future plans and solutions, together with their role in administrating and developing DL. Current DL problems in Saudi Arabia were illustrated by many interviewees such as managers, learners and teachers. They also put forward some existing and future solutions for these problems. In addition, the relationship between DL and government and HE plans was investigated and the future of DL in Saudi HE was explored. Plans and initiatives to develop DL were presented and interviewees' comments were directed toward this topic. The cooperation between academic libraries and DL was introduced to offer some insight into this relationship prior to conducting the second part of the interview analysis which looks in more detail at the topic of academic libraries and DL in Saudi HE. In addition, the relationship between computer centres in universities and DL was also presented, as well as the current DL instructors and learners' satisfaction. The role of librarianship in supporting DL was presented. Overall, DL is playing a role in augmenting the education of government staff but it still needs to be improved. HE initiatives to improve current DL are new and their results will be seen within the coming years.

Furthermore, several suggestions, comments and some concerns were offered by some key figures interviewed in this study, as well as by other DL stakeholders who were interviewed. Some of them commented on the importance of the AL in supporting their studies. Suggestions centred mostly on allowing them to use the AL as would any students in the university: at any time they wanted and especially remotely. They were demanding an important right, which is equity between them and other students. AL policies, according to their views, must be changed to include their rights and fully acknowledge them as if they were on campus academic library users. Other suggestions were related to the importance of online access to information resources and the importance of information centres to support all DL stakeholders. In addition, creating multi DL support centres in the country would help to support distance learners and make studying easier for them especially female students. Finally, DL instructors insisted on the importance of information services and resources in supporting their teaching and their distance learners in their studies. They believed in the importance of allowing distance learners to have easy access online to all the information services and resources available in the academic libraries 24/7. Alternatively, creating

centralised information services, as suggested by many DL stakeholders and others, could be a solution to the present situation which prevents DL stakeholders from being served by their AL.

Chapter Six
Questionnaire Analysis

6.1 Introduction

This chapter presents the analysis of the data obtained from distance learning instructors and learners (male and female) from two major public universities (IMBSIU and KAU) elicited from the surveys. The surveys were aimed to provide an understanding of respondents' perceptions of the role of academic libraries in supporting distance learning in Saudi Arabia. Overall, 127 instructors' questionnaires and 371 learners' questionnaires were valid to be analysed. The acquired data were checked to ensure their accuracy and these were then entered into a computer using SPSS, V17.

6.2 The Statistical Test

In the process of achieving the aims of this research and to answer a number of the questions identified in Chapter One, descriptive statistics, such as frequencies and percentages, were used to represent and explain the data that were collected from participants' questionnaires. Additionally, the data were examined using the Mann-Whitney U-test and the Chi-square test. The following chapter covers the analysis of the DL stakeholders' surveys and includes:

1. The characteristics of the population.
2. Personal skills in terms of computers, the Internet and the English language.
3. Opinions regarding existing DL programmes.
4. Factors currently affecting teaching and learning by distance.
5. Using academic libraries.
6. Methods of using academic libraries.
7. Types of resources used by distance instructors and learners.
8. Reasons for using information resources.
9. Factors affecting current use of the AL.
10. Information services currently offered by academic libraries.
11. Satisfaction with the available training methods on using the AL.
12. The expected role of the AL in supporting DL in Saudi HE.
13. The future relationship between DL and the AL, and library services for supporting DL stakeholders.
14. Alternative models for delivering information services to support DL in Saudi HE.

6.3 Part One: General Information

6.3.1 The Population's Characteristics

The aim of this section is to give background information concerning the DL instructors and learners who participated in this study, based on their personal characteristics. This information is based on responses given in the personal information section of the instructors' and learners' questionnaires and is important in gaining an understanding of the characteristics and experience of current DL instructors and learners. The instructors' and learners' population was generated, as mentioned above, from two sites: IMBSIU in Riyadh and KAU in Jeddah. Instructors' personal information was elicited in seven main areas: gender, age, university, college, academic qualifications, teaching experience, and place of education, while learners' personal information was only elicited from five main areas: gender, age, university, college and level of study. Such personal information offers statistics about the nature of DL instructors and learners which would not be available elsewhere.

6.3.1.1 University
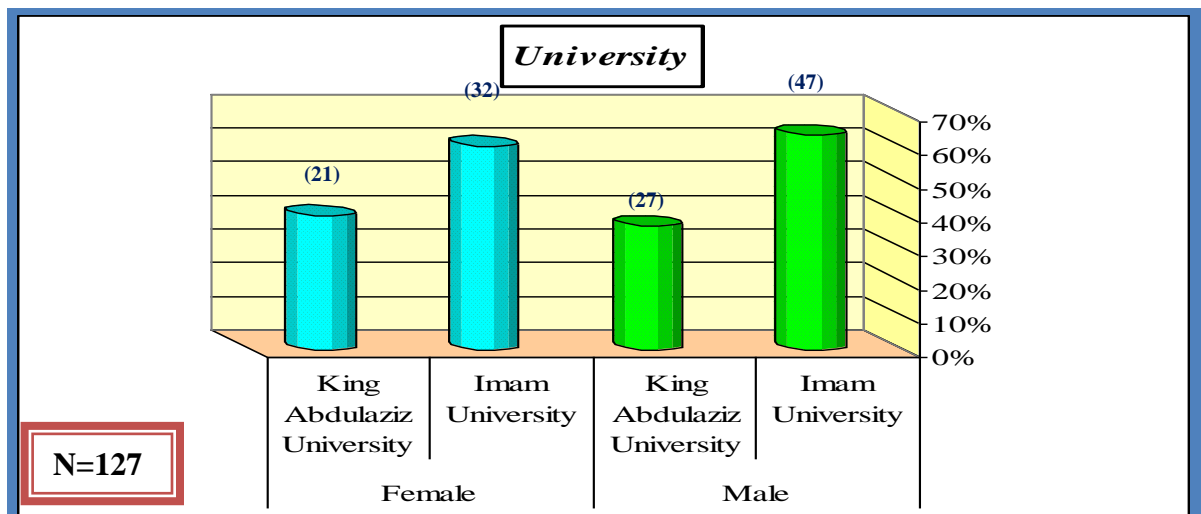
Figure 6.1: Responses by University (Distance instructors)

Instructor participants were drawn from two universities involved in offering DL. Figure 6.1 shows that 63.5% (47), of the males came from IMBSIU and 36.5% (27), were from KAU while 60.4% (32), of the females were from IMBSIU and 39.6% (21), were from KAU.
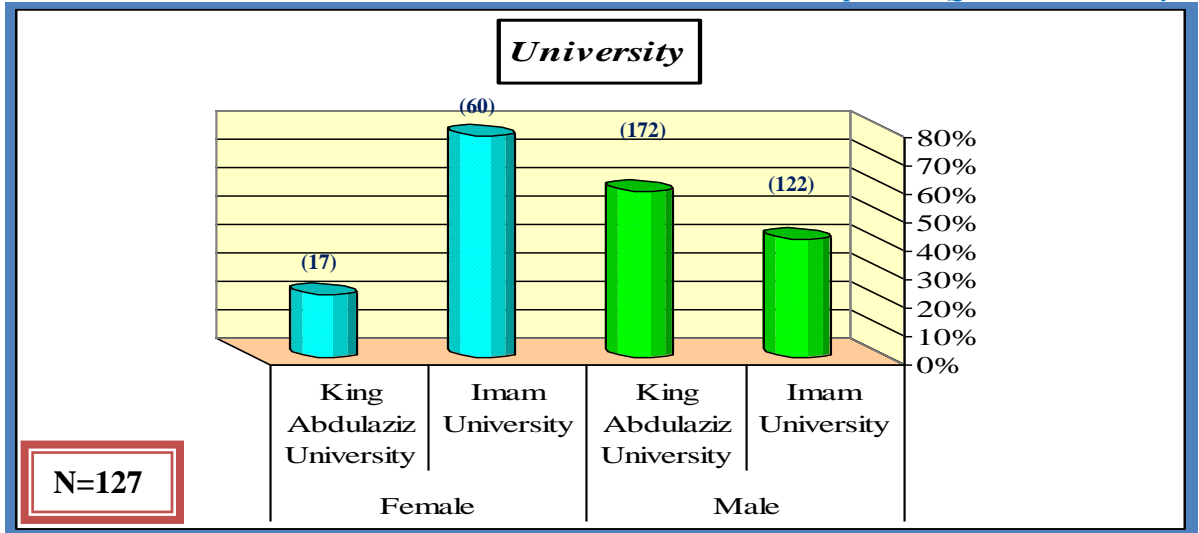
Figure 6.2: Responses by University (Distance learners)

On the other hand, as illustrated in Figure 6.2, distance learner participants were divided quite evenly between the two universities included in this study. 49.1% (182), of the participants came from IMBSIU while the rest, 50.9%, (189), were learners from KAU. There were more female participants from IMBSIU (60), than female participants from KAU (17) while male respondents from KAU were greater in number 17% more (172), than their male counterparts at IMBSIU.

6.3.1.2 Faculties
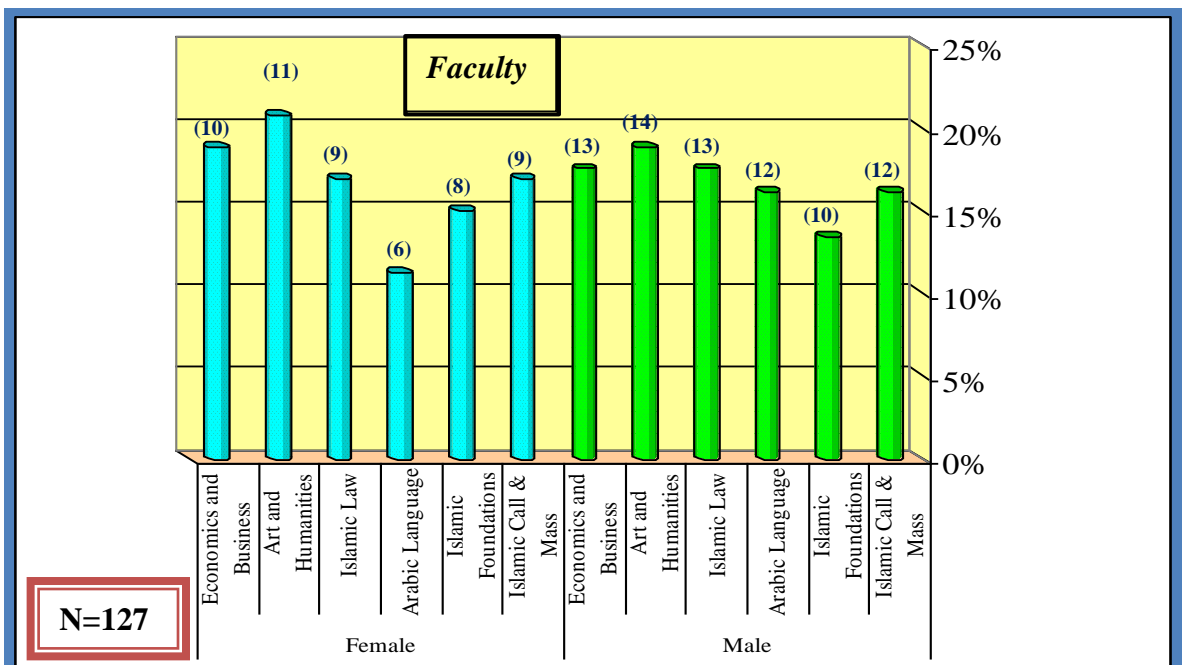
Figure 6.3: Responses by Faculty (Instructors' faculties)

Figure 6.3 shows that the Faculty of Arts and Humanities at KAU returned the highest number of instructors' questionnaires 19.7% (25), of all male and female instructors from among all the faculties in both universities.
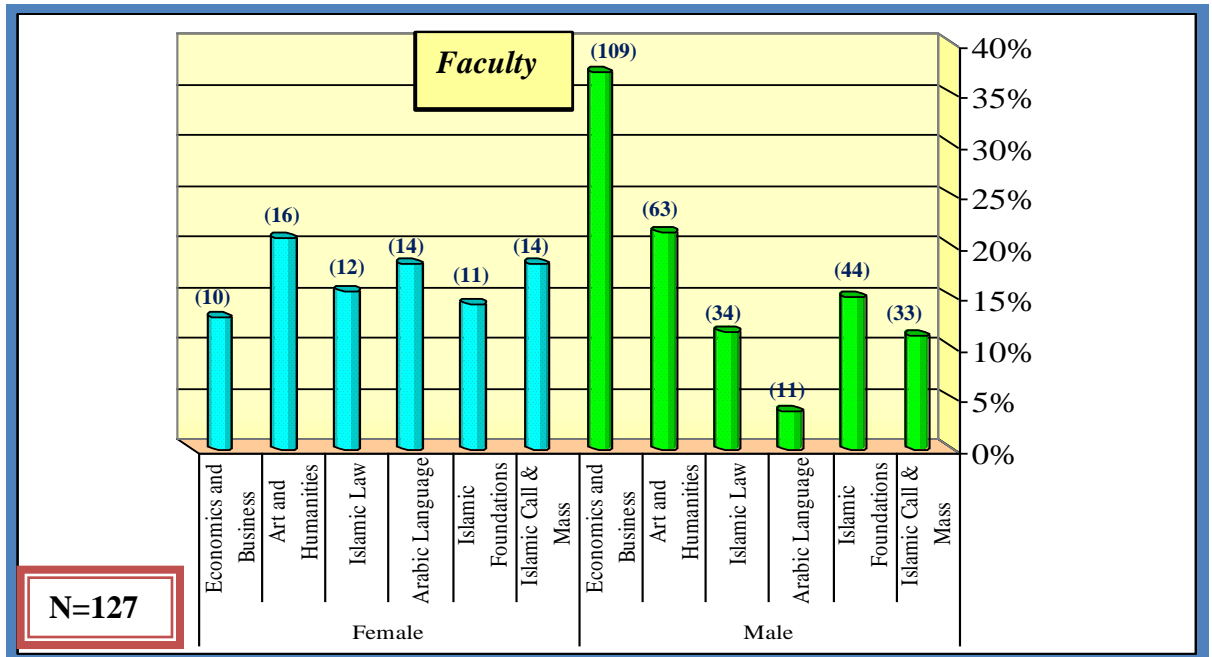
Figure 6.4: Responses by Faculty (Learners' faculties)

In addition, Figure 6.4 illustrates that data regarding distance learners were acquired from six faculties. Four of these faculties were from IMBSIU and two faculties were part of KAU. The faculty contributing the largest percentage of participants (both male and female) was the Faculty of Economics and Business at KAU with 32.1% (119), while the faculty that had the smallest number of participants, with a percentage of 6.7% (25), was the Arabic Language Faculty at IMBSIU. This result is related to the number of learners in each faculty.

6.3.1.3 Gender
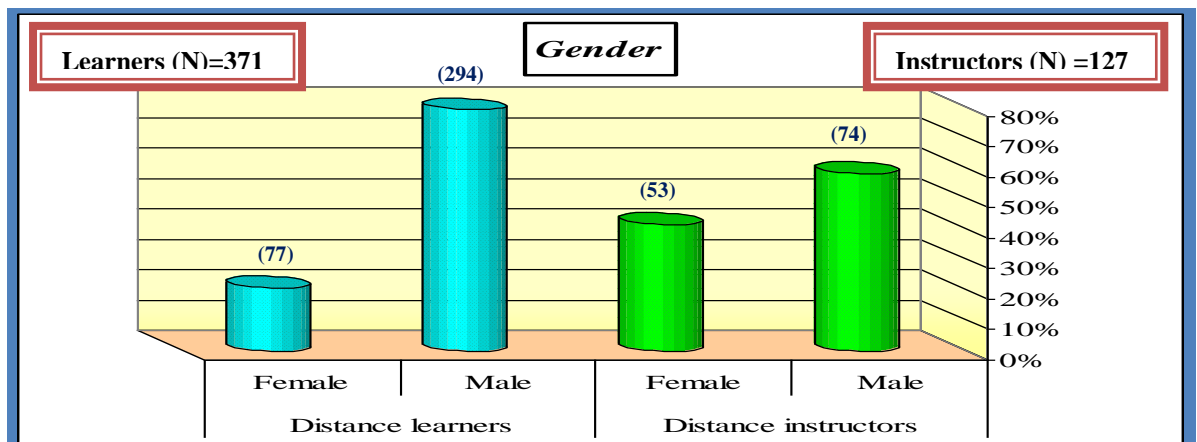
Figure 6.5: Gender

The results in Figure 6.5 show that 58.3% (74), of the instructors who responded to the questionnaire were male and 41.7% (53), were female. It is likely that fewer female instructors participated than males because of circumstances, such as the limited chances for women to continue their postgraduate studies, family obligations, the fact that few universities offer postgraduate studies to women, there are fewer chances for females to go abroad to study, and finally because it is difficult for men to conduct a survey that takes place on a female campus where men are not allowed to enter; this potentially reduces the number of female responses. In fact, the researcher's ability to reach or contact female instructors or learners was limited and this was one of the reasons there were relatively fewer answers from females. Furthermore, Figure 6.5 shows that 79.2% (294), of the learner respondents were male, while female learners accounted for only 20.8% (77). This is due to the nature of distance learners as most of them were male. Also, it was difficult to make contact with or gain easy access to female sites as the nature of Saudi culture, which is related to Islamic law, separates males and females in some aspects of life including education, as mentioned above.

6.3.1.4 Age Distribution
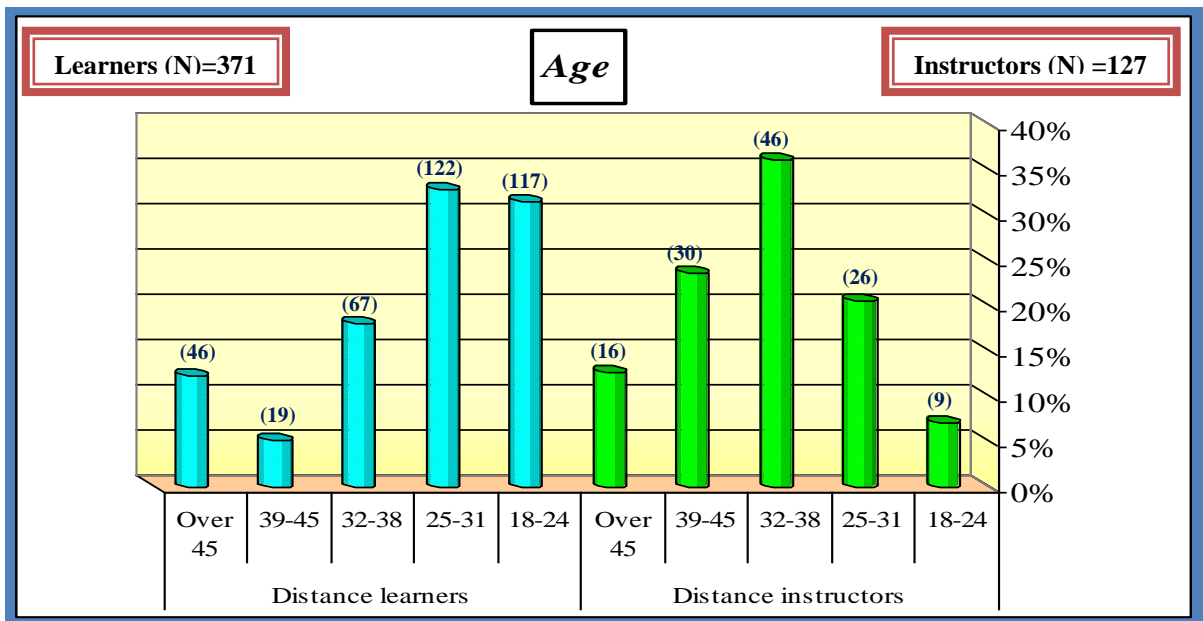
Figure 6.6: Age Distribution

Instructor and learners respondents were asked to identify to which of the five age groups they belonged. Figure 6.6 showed that instructors within the age range 32-38 years was the largest from among all the groups with a total of 36.2% (46). This was followed by the 39-45 year group with 23.6% (30), and the 25-31 year group with 20.5% (26). The lowest concentration of responses from DL instructors was from those aged between 25-31 and over 45 years.

Distance learners were also divided into five groups according to their age range. Participants within the 18 to 31 year age range, as illustrated in Table 6.6, were the most numerous with a percentage of 64.4% (239). This is because the university starting age begins at 18 and many distance learners then have the chance to continue HE later on. The second largest age range was from 32-38 years with a percentage of 18.1% (67), while the smallest was the 39-45 year age range with a percentage of 5.1% (19).

6.3.1.5 Experience of Teaching by Distance
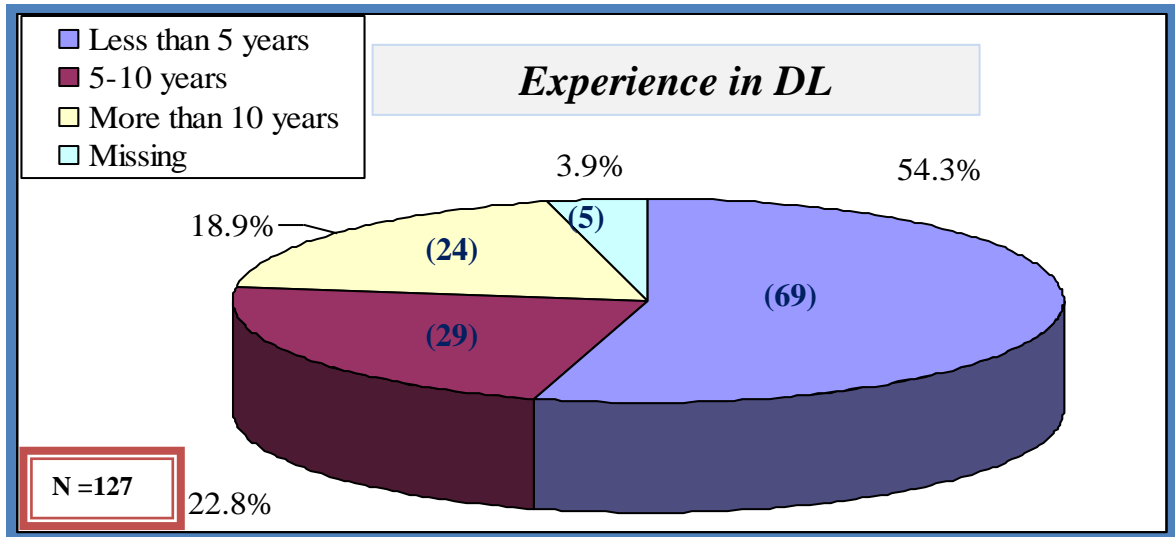
Figure 6.7: Overall Experience of Distance Instructors

The information regarding teaching experience was obtained only from instructors. The sample of this study showed that the largest concentration of respondents, as shown in Figure 6.7, had five years' teaching experience in DL or fewer. Cross-tabulation as illustrated in Tables 6.1 and 6.2 revealed that most instructors who had less than 5 years' experience of teaching DL were female (69.4%) while only 47.9% of male instructors had less than 5 years' experience. Females with more than 10 years' experience were also fewer than males with the same of amount of experience (10.2% compared to 26%).

However, the Mann-Whitney *U*-test was applied to these variables in order to discover if males and females differed in their teaching experience by distance, see Table 6.2. It was found that the difference is statistically very significant (the significance p<.005).

6.1: Experience in Teaching by Distance

			Gender		Total
			Male	Female	
Experience in teaching by distance	Less than 5 years	Count	35	34	69
		% within Experience in teaching by distance	50.7%	49.3%	100.0%
		% within Gender	47.9%	69.4%	56.6%
	5-10 years	Count	19	10	29
		% within Experience in teaching by distance	65.5%	34.5%	100.0%
		% within Gender	26.0%	20.4%	23.8%
	More than 10 years	Count	19	5	24
		% within Experience in teaching by distance	79.2%	20.8%	100.0%
		% within Gender	26.0%	10.2%	19.7%
Total		Count	73	49	122
		% within Experience in teaching by distance	59.8%	40.2%	100.0%
		% within Gender	100.0%	100.0%	100.0%

Table 6.2: Mann-Whitney U test comparing DL instructors (male and female) in terms of their experience in teaching by distance

	Experience in teaching by distance
Mann-Whitney U	1357.500
Wilcoxon W	2582.500
Z	-2.520
Asymp. Sig. (2-tailed)	.01
a. Grouping Variable: Gender	

6.3.1.6 Academic Qualifications
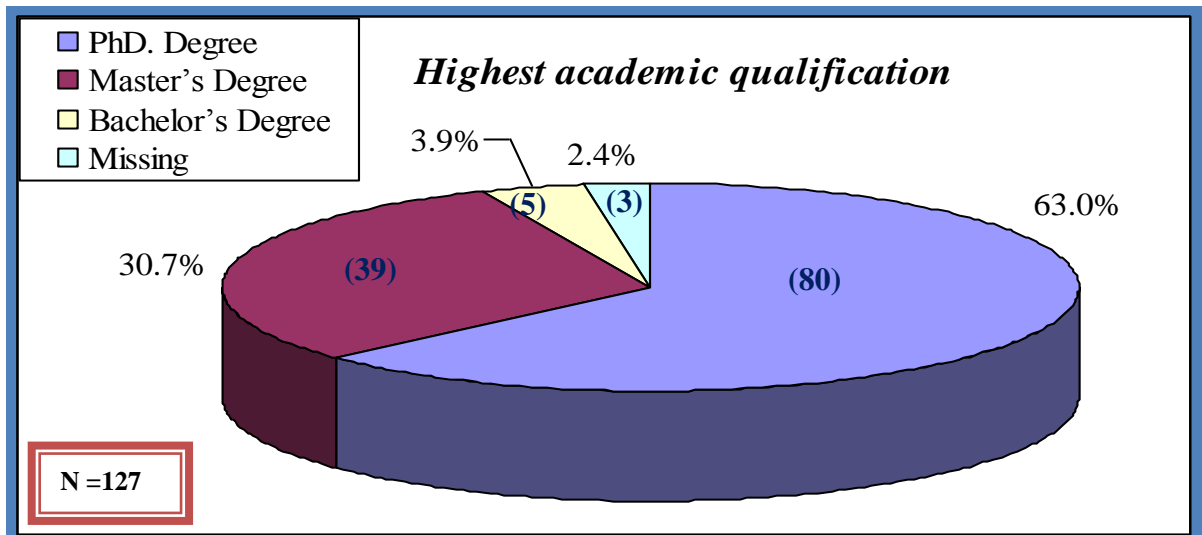
Figure 6.8: Overall Academic Qualifications of Respondents

This section was also designed to investigate the academic qualifications of only instructors who currently teach by distance. Answers were presented in three groups, as shown in Figure 6.8. The highest percentage was for respondents who held a PhD. degree (63.0%) (80), while the lowest was for those who had a Bachelor's degree (3.9%) (5). This result was expected as a PhD. degree is required for teaching in universities; those with a Bachelor's degree can work only as teaching assistants but can sometimes carry out some teaching.

6.3.1.7 Place Where the recent Degree was Achieved
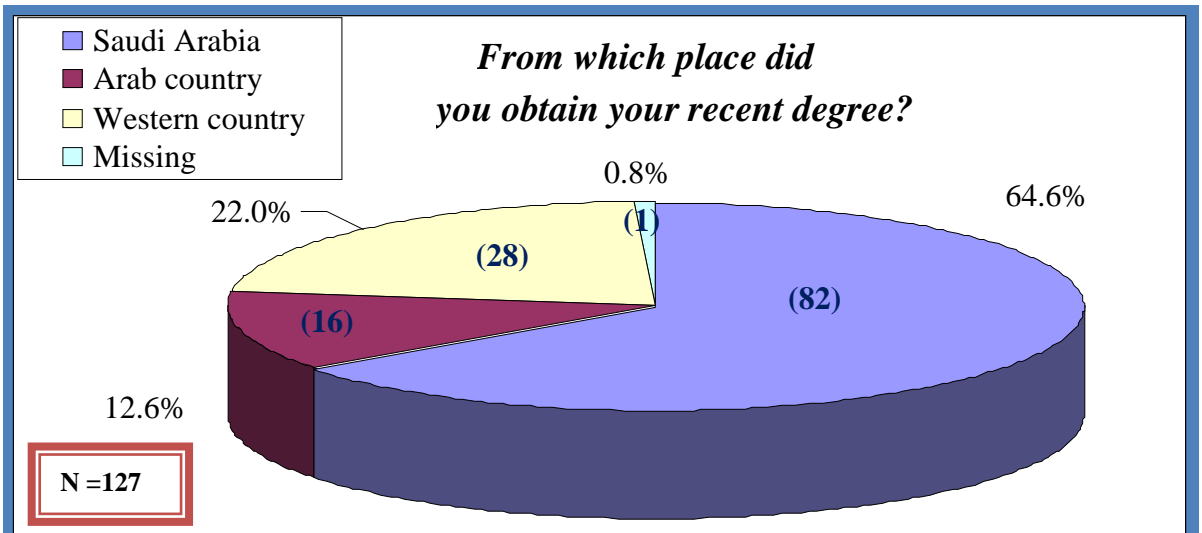
Figure 6.9: Place Where recent Degree was Achieved

As presented in Figure 6.9, 64.6% (82), of the instructors' sample indicated that they obtained their last degree from Saudi Arabia, especially those respondents from IMBSIU and female instructors who usually have less chance to go abroad to study compared with men.

6.3.1.8 Level of Study

This information obtained only from distance learners. Participants were drawn from only two levels of study (Levels three and four) as they were at the level of experience which enabled them to contribute most to this study and provide valuable feedback about the research topic. The results, as illustrated in Figure 6.10, showed that level three respondents were the most numerous with a percentage of 55% (204), while respondents from level four (the remainder) accounted for 45% (167).
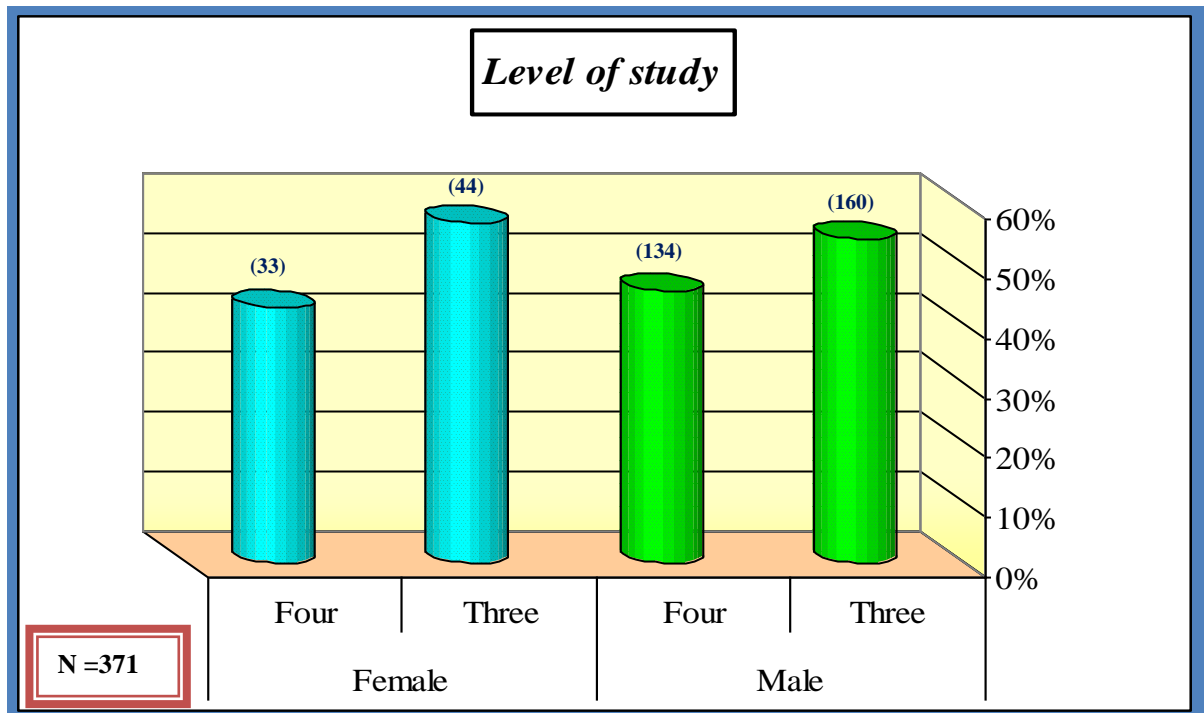
Figure 6.10: Level of Study

6.3.2   Personal Skills on Computers, the Internet and in the English Language

Basic skills related to DL, such as using a computer and its applications (e.g. MS Windows etc.), the use of the Internet (searching the web, using e-mail etc.) and reading and writing in the English language, were considered crucial, as discovered qualitatively, in delivering and developing current DL, especially in terms of issues related to information services and the resources offered by academic libraries. So, participating in DL and making full use of the opportunities such programmes offer cannot be fully achieved without having a certain level in the important skills mentioned above since the ability to use important computer applications and the Internet, and having a reasonable understanding of the English language in order to manage and explore information resources published in English, are vital. These skills were discovered qualitatively to be very important, not only for distance instructors, but also for distance learners. In the following section, self-evaluations by DL stakeholders regarding some of these skills are presented.

6.3.2.1 Computer Skills

Table 6.3: Computer Skills

Skill: Computer applications (MS office etc.)				
Answers	Distance instructors		Distance learners	
	N	%	N	%
Poor	6	4.7	16	4.3
Fair	4	3.1	77	20.8
Good	49	38.6	82	22.1
Very Good	38	29.9	119	32.1
Excellent	29	22.8	77	20.8
No Answer	1	0.8	0	00.0
Total	127	100.00	371	100.00

First, distance instructors were asked to evaluate their skills in using computers and their services; this evaluation is shown in Table 6.3. 38.6% (49), of respondents said they were good at using computer applications while 4.7% (6), of respondents said their skills were poor. 22.8% (29), of respondents said they were excellent at using computers. In addition, distance learners were also given the opportunity to evaluate their skill in using a computer and its applications. The results analysis also shows that 32.1% (119), of the DL learners indicated that they had very good qualifications and skills in using computer applications such as MS Office, while 20.8% (77), said their computer application skills were excellent. On the other hand, the results show that 25.1% (93), had poor or limited skills in using computers.

6.3.2.2 The Internet

Table 6.4: Internet Skills

Skill: The Internet				
Answers	Distance instructors		Distance learners	
	N	%	N	%
Poor	2	1.6	21	5.6
Fair	15	11.8	36	9.7
Good	27	21.3	92	24.8
Very Good	39	30.7	126	34.0
Excellent	44	34.6	96	25.9
No Answer	0	0.0	0	0.0
Total	127	100.0	371	100.0

The Internet is a very important tool for delivering and offering DL programmes. It is also a tool that can be used to acquire information resources and services through the academic library website or through the WWW. Thus, instructors' and learners' skills in using the Internet are crucial in order for them to conduct their activities effectively in teaching and learning by distance and accessing the information resources available through the Internet. An analysis of the data (instructors' self evaluation), as shown in Table 6.4, indicates that 34.6% (44), of the distance instructors said they were excellent in using the Internet while only 1.6% (2), and 11.8% (15), respectively said they had poor or fair skills in this area. The small percentage of instructors' respondents having difficulty in using the Internet must be

addressed if Saudi HE wishes to improve DL and to implement e-learning and its components.

Being skilled in using the Internet is also becoming an essential requirement for distance learners to succeed, especially with the rapid development of its technologies and the reliance on the Internet as the backbone of DL delivery; most information resources and services these days are also dependent on the Internet. As a result, distance learners should be skilled, not only in using computers, but also in using the Internet in order to achieve their goals. Distance learners' results indicate that 59.9% (222), of all respondents rated themselves very good or excellent in using the Internet while only 15.3% (57), evaluated themselves as having poor or fair Internet skills. This result, where some distance learners evaluated themselves as having poor or only fair knowledge regarding using the Internet, could be a reflection of the weak ICT infrastructure in the country and the poor capacity of the Internet in some parts of SA, as mentioned in Chapter 5.

6.3.2.3 The English Language

Table 6.5: English Language Skills

Skill: English language				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Poor	20	15.7	57	15.4
Fair	23	18.1	121	32.6
Good	29	22.8	96	25.8
Very Good	26	20.5	72	19.5
Excellent	27	21.3	22	5.9
No Answer	2	1.6	3	0.8
Total	127	100.0	371	100.0

The English language was considered by many interviewees to be an important tool in implementing and developing DL and for benefiting from the information resources available worldwide through the Internet. The results of this study, as indicated in Table 6.5, showed that 22.8% (29), of the distance instructors said they had good English language skills while 15.70% (20), and 18.1% (23), respectively had poor or fair knowledge. This agrees with the results presented in the interview chapter.

In addition, skill in the English language is also becoming a very important requirement, not only for work, but also for studying, as English is one of the most important languages in the publishing market. So, distance learners, especially those who are involved in studies that require reading literature published in English or writing assignments (if required) in English, must have a sound understanding of the language. This understanding can help them to achieve their goals and can also help them to navigate through recent literature located on the

Internet or in the academic library. However, the results show that 48% (178), of the distance learners feel that they have poor or only fair English language skills which, in reality, will not allow them to gain the greatest benefit from English publications available in their academic library or on the Internet. In addition, only 25.4% (94), of the participants had very good or excellent skills in English. This result could be very low from the point of view of academic libraries as many of their e-resources, which are costly, are published in English. This could prevent a large segment of library users from using information resources published in English.

Summary

It can be concluded that the DL instructors who responded to the instructors' questionnaire have a variety of qualifications as the highest percentage of users held a PhD. degree and the lowest percentage had a Bachelor's degree. Most of the respondents were male instructors aged between the ages of 25 to 45, and males constituted a larger group participating in the questionnaire compared with the female respondents for the reasons mentioned above. In addition, the distance learners' results show that current distance learners have only moderate or poor skills in terms of reading and writing in English; this can be seen as an obstacle in benefiting from resources published in English. On the other hand, the results showed that many of the distance learners have the necessary knowledge to use computers and the Internet which is positive in terms of spreading DL and its support services, such as the information services and resources, through the Internet.

6.4 Part Two: Information Services in Saudi DL Programmes

6.4.1 Opinions about Current DL in Relation to Academic Libraries and their Services

Investigating the views of the sample in terms of the existing DL programmes and their relations with academic libraries in Saudi Arabia was very important to show how well DL programmes were running. It was considered important to find out about this topic from those who were dealing with it every day, such as distance instructors and learners. Several statements were designed in the questionnaire to investigate the sample population's attitudes towards the current DL programmes and their relation with academic libraries. Several results emerged from the analysis as follows:

6.4.1.1 Encouragement to Use the Academic Library

Table 6.6: DL Encouragement to Use the Academic Library

Answers	Distance instructors		Distance learners	
	N	%	N	%
Instructor: I have encouragement from the DL Deanship to use the AL and advice students to do so.				
Learner: My instructors encourage me to use the AL.				
Strongly Disagree	12	9.5	95	25.6
Disagree	62	48.8	67	18.1
Undecided	23	18.1	135	36.4
Agree	20	15.8	60	16.2
Strongly Agree	4	3.1	9	2.4
No Answer	6	4.7	5	1.3
Total	127	100.0	371	100.0

First, the results obtained from distance instructors regarding the encouragement they received from their DL deanship to use the AL and whether they advised their distance learners to do so showed that 58.3% () of the respondents were disagree or strongly disagree that they have been encouraged by the DL deanships to use the academic libraries or even to advise their distance learners to do so. Only 18.9% () of respondents agreed or strongly agreed with the statement that DL deanships had advised them to use the academic libraries while the rest of respondents were unable to decide 18.1% (23), as illustrated in Table 6.6. This suggests that either DL guidelines are ambiguous or unavailable to many DL stakeholders.

Distance learners, by the nature of their study, often need advice, guidance and encouragement from their universities and their instructors to use all the support that is available, including the information resources and services offered by their institutes; yet they may receive little guidance. Academic library services are one of the supports that distance learners should generally use in order to achieve their goals. In practice, distance learners' usage of the academic libraries and their resources usually depends on the methods of publicity that the academic libraries have developed to attract users and also on the encouragement that such learners have received from their instructors or from the DL deanship. The results are similar to those obtained from instructors where almost half of distance learners 43.7% (162), stated that they disagree or strongly disagree strongly that their instructors and the DL deanship encourage them to use or consult the AL while only 18.6% (69), agreed or strongly agreed that they were encouraged to use the AL by their instructors. This result is very disappointing for the AL, instructors, learners and universities as an important source of support for learning by distance is thus being almost ignored.

6.4.1.2 DL Guidelines Regarding AL

Table 6.7: DL Teaching and Learning Requirements

Instructor: It is required when teaching by DL to use the AL and its information resources.				
Learner: It is suggested by the DL guidelines to use the AL and other information resources.				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Strongly Disagree	1	0.7	36	9.7
Disagree	25	19.8	66	17.8
Undecided	51	40.2	83	22.3
Agree	21	16.5	143	38.6
Strongly Agree	24	18.9	36	9.7
No Answer	5	3.9	7	1.9
Total	127	100.0	371	100.0

DL stakeholders were also asked about their views regarding current DL guidelines about using the AL. Results showed that 35.4% (), of the instructors agreed or strongly agreed that the DL guidelines suggest that they should use the AL and other information resources to support their teaching while 20.5% (), disagreed or strongly disagreed. These results from the instructors' perspective showed that guidelines may not be officially available to all or that guidelines are based on oral statements that may be delivered to them by their departments, faculties or by the DL deanship. It is also noticeable that many of the instructors 40.2%; (), were unable to decide. This may because those guidelines are not clear or are not available to all. Conversely, perhaps some instructors are not interested in finding out what the guidelines related to teaching by distance are. This could be due to a lack of time or a lack of interest in teaching by distance.

Moreover, in relation to the AL and its position in supporting distance learners, the results illustrated in Table 6.7 show that almost half of the learners 48.3% (179), agreed or strongly agreed that the DL guidelines suggested that they should use the AL and other information resources, while 27.5% (102), disagreed or strongly disagreed with this statement and 22.3% (83), were undecided. This result suggests that distance learners know more about DL guidelines than instructors. However, it should be mentioned that in reality it was discovered that there are no guidelines that have been designed by the DL deanship to encourage DL stakeholders to use the AL. Instead, informing DL stakeholders about the facilities that are available in the university, including those in the AL, is just a matter of individual practice. In general, results as illustrated in Table 6.8 show some differences between DL stakeholders regarding this factor. Such differences were confirmed using the cross-tabulation chi-square value (χ^2 = 51.934, df =4, p=.000); this suggests that there is a significant difference in the guidelines regarding using AL between instructors and learners at a .000 level of significance.

Table 6.8: Chi-Square test comparing DL stakeholders (instructors and learners) in terms of Teaching and Learning Requirements

	It is suggested by the DL regulations to use the academic library and other information resources
Chi-Square	51.934[a]
Df	4
Asymp. Sig.	.000

6.4.1.3 The Use of Academic Libraries and Teaching and Learning by Distance

Table 6.9: The Need to Use the Academic Library

Instructor: As a DL instructor, I do not need to use the AL to support my teaching.				
Learner: I do not need to use the AL to support my study.				
Answers	Distance instructors		Distance learners	
	N	%	N	%
Strongly Disagree	13	10.3	61	16.5
Disagree	36	28.3	64	17.2
Undecided	56	44.1	132	35.6
Agree	10	7.9	90	24.3
Strongly Agree	4	3.1	18	4.9
No Answer	8	6.3	6	1.5
Total	127	100.0	371	100.0

DL instructors and learners were asked about their habits in using their AL for their distance teaching and learning. First of all, 38.6% (49) of the instructors, as shown in Table 6.9, disagreed or strongly disagreed with the idea that they did not need to use their AL to support their teaching by distance, while 11% (14) agreed or strongly agreed that they did not need to use their AL to support their existing distance teaching. However, it is noticeable that 44.1% (56), of instructors were unable to decide about this question and decided to provide no absolute answer. This could be because they did not use the AL, which they may have wanted to be discrete about, or were unwilling to show that they had never used the AL during their teaching by distance, which would indicate a low level of engagement with the AL by these DL stakeholders. However, this could not be categorically shown from the data.

Teaching by distance, and also studying by distance and succeeding on a DL programme, should involve using a number of resources, services and support: among these is the AL. However, the results show that 33.7% (125), of the distance learners disagreed or strongly disagreed that they did not need to use the AL to support their study while 29.2% (108), said that they agreed or strongly agreed that they did not need to use the AL to support their study. Around a third of the learners, with a percentage of 35.6% (132), were unable to decide and were unsure whether they were going to use the AL in the future or not! However, it should be noticed that DL stakeholders, as shown in 6.4.2.3, believed that limitations in AL resources

was a major negative factor in using the AL. However, overall, this indicates a similar picture on the perceived importance of the AL among DL stakeholders. In addition, Cross-tabulation was then carried out to discover if instructors and learners differed in terms of the need to use AL. The results of the chi-square test as illustrated in Table 6.10 show statistically significant no differences at the 0.000 and 0.005 level.

Table 6.10: Chi-Square test comparing DL stakeholders (instructors and learners) in terms of their need to use AL

	As a distance teacher/learner, I do not need to use the academic library
Chi-Square	**79.193[a]**
df	**4**
Asymp. Sig.	**.000**

6.4.1.4 AL Support

Table 6.11: Academic Library Support for DL

Instructor: There are no current services from the AL to support DL.				
Learner: There is no support from the AL for DL.				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Strongly Disagree	3	2.3	26	7.1
Disagree	18	14.1	39	10.5
Undecided	38	29.9	79	21.3
Agree	49	38.6	148	39.8
Strongly Agree	9	7.2	65	17.5
No Answer	10	7.9	14	3.8
Total	127	100.0	371	100.0

The purpose of this question was to understand instructors' and learners' views about the current engagement of the AL in supporting DL programmes. Almost half of the sample, 45.8% (58), of the DL instructors, as indicated in Table 6.11, agreed or strongly agreed that there was no defined information services support from the AL specifically for DL. However, only 16.4% (21), disagreed or strongly disagreed with the statement and believed that AL support, designed for DL stakeholders, is available. In general, this result supports the results obtained via the document analysis and interviews where many interviewees believed that there was no single information service that had been designed to support DL.

On the other hand, distance learners were asked if the AL in their institute provided the necessary support for them to use the AL. Their answers demonstrated that 57.3% (213), of the distance learners agreed or strongly agreed that no special support had been designed or offered by their AL for them to use. This result is similar to that obtained from their

instructors which showed a lack of information services provision for DL stakeholders. This result also reinforces the results presented in the interview analysis chapter. However, Table 6.12 show the chi-square tests that were performed on the academic library support for DL the respondents' variables indicated that there is no current services from the AL to support for DL were highly significant at a 0.000 level (χ^2 = 65.00, df = 4, p = .000).

Table 6.12: Chi-Square test comparing DL stakeholders (instructors and learners) in terms of the availability of AL support

	There is no support from the academic library for DL programmes
Chi-Square	65.009[a]
df	4
Asymp. Sig.	.000

6.4.1.5 Information Literacy

Table 6.13: Current Academic Library Training Programmes

Instructor: AL offers a training programme to use the AL and its resources.				
Learner: The AL usually runs training programmes during my study in how to use the AL.				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Strongly Disagree	5	3.9	65	17.5
Disagree	31	24.4	72	19.4
Undecided	46	36.2	120	32.3
Agree	34	26.8	78	21.1
Strongly Agree	2	1.6	21	5.6
No Answer	9	7.1	15	4.1
Total	127	100.0	371	100.0

Information literacy training programmes are very beneficial in helping library users to get the greatest benefit from all the resources and services available, not only in their libraries but anywhere. So, training AL users, including DL stakeholders, in using the AL's services and resources is becoming more important; indeed, it is seen as a necessity in supporting DL stakeholders (Wilder 2008). Providing training programmes for DL stakeholders to use and benefit from the academic libraries and their services should be an important goal. This would be useful for DL learners since they are distant from the campus. In addition, this might be particularly useful in the light of the current rapid developments occurring in Saudi academic libraries where they are starting to implement fully the Internet as an important tool.

However, according to the results shown in Table 6.13, instructors were equally divided when 28.3% (36), of them disagreed or strongly disagreed and another 28.3% (36), of them also agreed or strongly agreed with the availability of training programmes in using the AL and its

resources. The highest percentage of DL instructors 36.2% (46), was undecided which can be seen as a problematic issue; it is perhaps indicative of the current lack of use of academic libraries by instructors. Also, this result can be related to the absence of AL plans to market and attract many users including DL stakeholders.

For distance learners, an analysis of the results shows that a quite high percentage of the respondents 36.9% (137), disagreed or strongly disagreed that their academic libraries provided them with training programmes to use the AL during their current studies; this is similar to the answer obtained from instructors and raises a question about the apparent continuing failure of academic libraries to recognise the needs of DL stakeholders by not including them in their plans and policies. This result is supported by what was found in the literature review regarding the failure of Saudi academic libraries to inform their users about their services and training programmes. In addition, only 26.7% (99), of the distance learners agreed or strongly agreed that academic libraries ran training programmes. Those who indicated that academic libraries did offer training programmes were likely to be those who lived in the city where the university campus was located and who therefore had the opportunity to visit the campus and use its facilities including the AL and its services.

In addition, cross-tabulations were carried out to find out if any correlation existed between the current academic library practice of offering training programmes and the use of its resources by DL stakeholders. Results as illustrated in Table 6.14 show a significant relationship was found to exist at a .000 level of significance.

Table 6.14: Chi-Square test comparing DL stakeholders (instructors and learners) in terms of current AL practice in offering training programmes

	There is training programme during my teaching/learning to use the academic library (e.g using e-resources, library catalogue etc.)
Chi-Square	62.593[a]
Df	4
Asymp. Sig.	.000

6.4.1.6 Textbooks

Table 6.15: DL's Dependency on Textbooks

Answers	Distance instructors		Distance learners	
	N	**%**	**N**	**%**
Strongly Disagree	1	0.8	9	2.4
Disagree	1	0.8	19	5.1
Undecided	23	18.1	72	19.4
Agree	64	50.4	180	48.5
Strongly Agree	27	21.2	80	21.7
No Answer	11	8.7	11	2.9
Total	127	100.0	371	100.0

Instructor: DL programmes still basically depend on textbooks.
Learner: Current DL still depends on textbooks.

In the past, DL programmes were heavily dependent on textbooks and this is still the case at present. This trend should be changed by using the rapid developments being made in the ICT sector to offer more alternative information resources and content. Instructors were asked for their views regarding the current use of textbooks as a tool for teaching and learning by distance. The majority of DL instructors (71.6%; N=91), as shown in Table 6.15, agreed or strongly agreed that current DL programmes in Saudi HE still depend on textbooks as the primary resource for teaching and learning. Distance learners indicate similar answers to those obtained from distance instructors. 70.2% (260), of the distance learners agreed or strongly agreed that current DL programmes still depend on textbooks as the primary resource for learning. In addition, a small percentage of learners 7.5% (28), disagreed or strongly disagreed. This could be related to the style of individual instructors who might direct some students to use alternative resources other than textbooks or because the nature of the subjects taught encourages a preference to use resources other than textbooks, especially in subjects related to administration, business and economics.

However, cross tabulation were carried out to find if any correlation exists between instructors and learners in terms of using textbooks instead of using AL. Results as illustrated in Table 6.16, show a significant relationship exists between them at the level .001 of significance.

Table 6.16: Chi-Square test comparing DL stakeholders (instructors and learners) in terms of using textbooks instead of using AL

	Current DL still depends on textbooks
Chi-Square	114.862[a]
Df	4
Asymp. Sig.	.000

6.4.1.7 Equity in Using Information Services Support

Table 6.17: Equity in Terms of Supporting DL Stakeholders with IS Support

There is no equity between off- and on- campus students regarding the availability of IS support.				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Strongly Disagree	9	7.1	27	7.3
Disagree	12	9.5	28	7.5
Undecided	25	19.7	63	17.0
Agree	21	16.5	137	36.9
Strongly Agree	51	40.1	109	29.4
No Answer	9	7.1	7	1.9
Total	127	100.0	371	100.0

The literature review showed that having easy access to the support offered by academic libraries is very important in supporting teaching and learning by distance. For instance, McKnight (1998, p.55) stated that: "Anecdotal evidence suggests that one reason why Deakin University attracts off-campus students, particularly higher degrees by research students, is the excellent and easy to use off-campus library service." However, respondents were asked for their opinions regarding the level of equity between off- and on-campus learners regarding the use of the information services offered by academic libraries. According to the results illustrated in Table 6.17, a large percentage 56.6% (72), of instructors agreed or strongly agreed that there is no equity between off- and on-campus learners in terms of the support they receive from the AL. This result showed that the current concept of supporting and helping DL stakeholders equally to those who are based on the campus is deficient.

In fact, equity between distance learners and on-campus learners should be maintained in order to avoid any unfair discrimination. Equity in this context involves supporting DL stakeholders with all the information services and resources from their academic libraries that are available for those studying on campus including easy access to online resources 24/7, document delivery and copying services, information literacy programmes, book borrowing and so on. The results indicate that a high percentage of distance learners 66.3% (246), agreed or strongly agreed that they felt there was no equity between them and on-campus learners regarding the availability of information services and the support provided by academic libraries. Only 14.8% (55), of the learners believed or strongly believed that there was equity between DL learners and on-campus students; this result was not supported by the findings that were obtained from the interview analysis.

6.4.1.8 Use of Information Resources

Table 6.18: Using Information Resources besides Textbooks to Support Teaching by Distance

Instructor: I use other information resources besides textbooks to support my teaching.				
Learner: I always use information resources (e-journals, e-books, printed resources) other than text books to support my study.				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Strongly Disagree	2	1.6	27	7.3
Disagree	8	6.3	52	14.1
Undecided	55	43.4	119	32.1
Agree	41	32.2	123	33.1
Strongly Agree	13	10.2	39	10.5
No Answer	8	6.3	11	2.9
Total	127	100.0	371	100.0

The use of information resources other than textbooks by DL stakeholders, especially with new developments in IT, is considered, as indicated by Bell (2009) and Collis and Moonen (2002), to be very important in improving teaching and learning processes by distance, especially among instructors who believe that textbooks are "accurate and up-to-date, present interesting information, and facilitate learning" (Musheno and Lawson 1999, p.24). DL stakeholder respondents were asked if they often used other information resources beside textbooks to support and enhance their own teaching and learning by distance. 42.4% (54), of the instructors agreed or strongly agreed that they did, as illustrated in Table 6.18, and said that they always used other information resources besides textbooks to support their own teaching mission, while only a small percentage 7.9% (10), disagreed or strongly disagreed that they did use them.

Similar to distance instructors, distance learners should also be able consult and use multi information resources other than just textbooks to widen their knowledge as this is currently considered to be the nature of studying at HE institutes in SA, including the new e-learning programmes. Regarding this matter, the results show that 43.6% (162), of the learners agreed or strongly agreed that they were using other resources, such as journals and other books besides textbooks to support their learning, perhaps because they thought that textbooks would give them little more than just basic knowledge or due to the resources being somewhat out of date. However, 21.4% (79), of learners disagreed or strongly disagreed with the idea that they always used information resources other than textbooks. This suggests that textbooks are still one of the primary learning resources in DL programmes while other information resources are still being used to a lesser extent among distance learners.

A comparison was made between the instructors and learners in terms of their use of other information resources beside textbooks. Table 6.19 show a significant relationship was found (at a 0.001 level of significance).

Table 6.19: Chi-Square Test Comparing DL Stakeholders (Instructors and Learners) in terms of their Use of other Information Resources Beside Textbooks

	I always use information resources (e-journals, e-books, printed sources) other than text books to support my study
Chi-Square	88.689[a]
Df	4
Asymp. Sig.	.000

6.4.1.9 Acquiring Information Resources

Table 6.20: Buying Information Resources as an Alternative to Using the AL

I prefer to buy books and other resources instead of using the AL.				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Strongly Disagree	4	3.1	23	6.1
Disagree	10	7.9	27	7.3
Undecided	41	32.2	118	31.9
Agree	57	44.9	137	36.9
Strongly Agree	6	4.8	55	14.9
No Answer	9	7.1	11	2.9
Total	127	100.0	371	100.0

DL stakeholders usually employ several methods of finding information other than using the AL. Among them is buying information resources available in bookstores or online. Participants were asked about their views regarding their habits in using the AL and alternatives to the AL for supporting their teaching and learning by distance. 49.7%; (63) of the instructors, as illustrated in Table 6.20, agreed or strongly agreed that they preferred to buy books and other resources instead of using the AL. This could be related to the current poor condition of AL services and resources in serving their users, as was discovered qualitatively. However, it is necessary to explore in greater detail why this should be the case as it is likely that, if the AL were fulfilling its role in supporting DL instructors, the answer might have been different. 32.2% (41), of the instructors were undecided, perhaps because they were used to using textbooks as teaching resources, not only in teaching in DL programmes, but also in their face-to-face teaching.

In addition, not only is the availability of resources in the AL important, but also easy access to the information resources available in the academic libraries is a vital element in running and administering DL programmes. The analysis of the results obtained from distance

learners shows that 51.8% (192), of learners agreed or strongly agreed that they preferred to buy books and other information resources instead of using the AL. This result could be due to the failure of academic libraries to make the necessary efforts to make their IS and resources known to learners, easy to access, and available for off-campus learners; alternatively, they may lack resources. Distance learners, as well as distance instructors, may find it frustrating not to have easy access, whether on- or off-site, to information resources and services available in their academic libraries. This might lead them to use other methods of acquiring resources such as buying resources instead of using the AL. 31.9% (118), of the learners were unable to provide a direct answer to this question perhaps because they were uncertain or because they usually had no need to use and consult information resources other than the assigned textbooks, as shown earlier and through the interviews. Only a small percentage of learners 13.4% (50), disagreed or strongly disagreed that they prefer to buy books and other resources instead of using the AL. Hence, they used the AL to support their studies instead of buying other resources. These learners could be distance learners who live nearby and therefore have easy physical access to the AL.

6.4.1.10 Reading Materials

Table 6.21: Ready-made Course Materials Compared to Using the AL

DL courses should include all the necessary reading materials instead of using the AL.				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Strongly Disagree	4	3.1	10	2.6
Disagree	25	19.7	24	6.4
Undecided	29	22.9	66	17.8
Agree	32	25.2	151	40.8
Strongly Agree	26	20.5	114	30.8
No Answer	11	8.6	6	1.6
Total	127	100.0	371	100.0

The current practice in DL programmes, as shown in Chapter 5, is usually to assign certain textbooks and handouts for DL stakeholders to use in teaching and learning by distance; instructors usually advise their learners how to use them. However, in this section of the survey, DL stakeholders were asked if they would prefer the DL deanship to provide all the reading materials needed by courses and to hand these to learners instead of leaving them to consult and use the AL. 45.7% (58), of the instructors, as illustrated in Table 6.21, agreed or strongly agreed with this statement which might suggest that, if the AL was carrying out its job effectively and was supporting all its users, including DL stakeholders, the answer might have been different. Thus, DL instructors would prefer to use the AL and would encourage their distance learners to do the same. On the other hand, 22.8% (29), of instructors did not agree or strongly agree with this idea. Hence, they might prefer their students to depend on

textbooks or to use several information resources available in the AL. However, this result may indicate certain laziness on the part of some current DL instructors, together with a lack of incentives in teaching by distance. This may contribute to instructors having less commitment to teaching in DL, as was supported by Bower (2001).

On the other hand, Table 6.21 also shows that 71.6% (265), of the learners agreed or strongly agreed that they would prefer to have a complete set of all the reading materials instead of using the AL. This could be related to the current failure of academic libraries, as well as DL deanships, to provide the necessary support related to the provision of information. However, many learners preferred to have ready-made reading materials. This could indicate their need to have resources that can support their study by distance when many of them are not located in large cities where access to information resources is quite easy. Other explanations for learners being in favour of having ready-made reading materials could be related to the current failure on the part of many learners to use the AL, laziness, a lack of established reading habits, poor skills in searching and finding information, and other factors which have been discovered qualitatively. However, a small percentage 9% (34), disagreed or strongly disagreed with this statement; they said they preferred to use the AL to obtain the necessary information resources related to their study. This result may indicate that few learners enjoy easy access to the AL and its services as they may not be located close to the library.

6.4.1.11 DL Guidelines Regarding Assignments and Coursework

Table 6.22: Assignments in DL Courses

Answers	Distance instructors		Distance learners	
	N	%	N	%
Strongly Disagree	42	33.0	27	7.2
Disagree	25	19.7	71	19.1
Undecided	33	26.0	64	17.2
Agree	14	11.0	130	35.1
Strongly Agree	7	5.5	57	15.3
No Answer	6	4.8	22	6.1
Total	127	100.0	371	100.0

Instructor: DL students are not required to do assignments or other coursework.
Learner: It is not required to do homework or to do research papers in my current study.

Participants were asked about the guidelines in terms of how DL learners should carry out assignments as part of their coursework evaluation on their programmes. Pedagogically, assignments and coursework are known to be very important elements in teaching and learning, not only in a traditional learning environment, but also in DL (Spear and Sax 2001; Clarke *et al.* 2004). Such work should encourage learners to consult and use the AL and other information services and resources in order to achieve the objectives of the course and to increase their own knowledge. 52.7% (67), of the instructors, as illustrated in Table 6.22,

disagreed or strongly disagreed with the statement that currently DL learners are not required to do assignments or other coursework, apart from learning through using textbooks or other reading materials. Conversely, 16.5% (21), of the instructors agreed or strongly agreed that distance learners are not currently required to complete assignments or other coursework as part of their study by distance. This result, which indicates a difference between participants' answers on this topic, implies the absence of defined DL practice amongst universities to manage and run the current DL programmes in the country. Instead, universities, faculties, departments and even instructors seem to have the right to provide and regulate DL programmes according to their own designs and/or to their own regulations.

From the distance learners' perspectives, the results show that over half of participants 50.4% (187), agreed or strongly agreed that they are not required to do homework or other assignments as part of their current distance study. Only 26.3% (98), of respondents disagreed or strongly disagreed with this idea and stated they do have to complete homework and other assignments. Disagreement regarding this topic among learners could be related to the nature of the subjects taught, the motivation and commitment distance instructors have toward their distance learners, or it could just be the result of a lack of clear and well-defined regulations with each individual instructor instead setting his or her own regulations.

However, 26.0% (33), of the instructors and 17.2% (64), of the learners were unable to decide about this topic. It may be that some instructors are running their distance teaching without assigning homework tasks for distance learners to do, as was discovered qualitatively. This indicates a lack of clear and straightforward guidelines and standards for administrating DL programmes in SA. According to distance learners, at the beginning of their third year, they may still not have had any experience of carrying out independent study or have not been required to do assignments or research before graduation, as also was discovered qualitatively. In addition, some instructors may pay little attention to teaching by distance throughout the year apart from at the time of administrating final exams. In fact, it was discovered that some distance learners might graduate without submitting a single assignment or piece of homework because of their own instructors' failure to ask distance learners to submit assignments. Such differences were confirmed using the cross-tabulation chi-square value ($\chi^2 = 32.84$, df =4, p=.000) as illustrated in Table 6.23; this suggests that there is a significant difference in term of requirement of the assignment between instructors and learners at a .001 level of significance.

Table 6.23: Chi-Square Test Comparing DL Stakeholders (Instructors and Learners) in terms of Requirement of the Assignments

	DL students are not required to do assignments or other course work
Chi-Square	32.843[a]
Df	4
Asymp. Sig.	.000

6.4.2 Factors Affecting the Current Teaching in Saudi DL

Several important factors affect teaching and learning by distance in Saudi HE, some of which are presented here. Among these are the availability and the efficiency of academic libraries and their services in supporting and serving DL learners. Analysis of the opinions of DL stakeholders is presented here regarding the most important factors that may influence them in their current teaching and learning by distance. Most of these are related to the current role of the academic libraries in supporting teaching and learning processes by distance so a question was also set to investigate to what extent certain factors affected DL stakeholders' teaching and learning by distance. In fact, using academic libraries is dependent on several factors: the location of the AL, the availability of IS support, the availability of a strong ICT infrastructure, and the availability of the Internet. These factors can play an important role in the use of academic libraries. In fact, the lack of many resources can be very disappointing, especially in terms of teaching and learning by distance. The following analysis indicates to what extent some factors affect DL instructors' and learners' use of the academic libraries included in this study, together with their information services and resources.

6.4.2.1 The Absence of Information Services

Naturally, learning and teaching processes consist of a number of elements that are linked to each other and cannot be divided. Among these elements are the information services and resources that are available in the AL of the home institute of DL stakeholders to support and strengthen their teaching and learning. In fact, the support offered by the AL is an important element in allowing instructors and learners to benefit fully from the AL's resources and services.

Table 6.24: The Lack of IS in Academic Libraries

Absence of information services support from the AL.				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Not at all	2	1.5	16	4.3
Minor extent	3	2.3	31	8.3
Undecided	27	21.2	103	27.8
Moderate extent	71	56.0	140	37.8
Major extent	19	15.0	72	19.4
No Answer	5	4.0	9	2.4
Total	127	100.0	371	100.0

Most DL instructors (73.8%) believed, as illustrated in Table 6.24, that the absence of information services support offered by the AL, which may include access to full-text online databases especially for their distance learners, a help desk designed for DL stakeholders, an informative website, and well-designed information literacy programmes and other basic information services had a moderate or major effect on their use of the AL. In fact, the absence of basic information services could reduce the quality of their teaching by distance. Only 3.8% (5), of the instructors believed that the lack of information services (ISs) support had only a minor effect or no effect at all on their teaching by distance. This could be explained by the fact that current teaching on DL programmes usually depends solely on textbooks. However, 21.2% (27), were unable to decide, perhaps due to their lack of knowledge about the existing academic libraries and their services.

According to the distance learners' perspective, the results indicate that more than a half of distance learners 57.2% (212), stated that the absence of ISs support from their AL has a moderate or major affect on their study by distance. This result is similar to the results obtained from distance instructors where a large percentage 71% (90), reported negative effects of a lack of information support from the AL. This result again indicates the weakness of current AL services in supporting DL, even for those on campus (as distance instructors are usually based on campus). 27.8% (103), of distance learner respondents, as well as 21.2% (27), of the instructors, as mentioned above, were undecided about the impact of the lack of support from the AL. This could be because they might not know anything about the academic libraries and their information services due to a lack of marketing strategies or because distance learners are not required to consult resources other than text books and handouts as a part of their study.

6.4.2.2 ICT Support

The strength of ICT support offered by academic libraries, the DL deanships or by universities is important in supporting not only distance instructors, but also distance learners,

especially during the current period of transition in implementing e-learning. DL stakeholders may not fully benefit from all of the information resources and services without reliable ICT support. The benefit derived from the AL services and resources, which usually focus on modern technologies these days such as online information resources in databases or websites, are considered to be very important by many stakeholders. These stakeholders include organisations involved in standardising IS for DL (as included in the literature review), managers, librarians, instructors and learners. Thus, this is an issue, not only for distance learners, but also for instructors.

Table 6.25: Lack of ICT Support and its Effect on Teaching/Learning

Lack of ICT support affects teaching/learning.				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Not at all	5	4.0	20	5.4
Minor extent	7	5.4	32	8.7
Undecided	48	37.9	99	26.7
Moderate extent	43	33.9	138	37.1
Major extent	12	9.4	74	20.0
No Answer	12	9.4	8	2.1
Total	127	100.0	371	100.0

Regarding this matter, instructors and learners were asked if the lack of ICT support in general had affected their current teaching and learning by distance. Table 6.25 show that 43.3% (55), of the instructors believed that the lack of ICT support had a moderate or major effect on their DL teaching because of the lack of personal computers and Internet access available in their offices, the lack of training, and the slow Internet network in the university; these were found to be some of the main problems cited in the interviews and in comments made in the questionnaires. On the other hand, 9.4% (12), of the instructors believed that the lack of ICT support had only a minor effect or no affect at all on their teaching by distance. This was perhaps because they depended less on computers for their teaching as they may be ICT illiterate, they may lack skills in the English language or because they did not have the necessary ICT support from their universities. However, it is noticeable that 37.9% (48), were unable to decide perhaps because of their lack of involvement in using ICT in general in their daily work, and especially in teaching by distance, as e-learning is still in its early stages of being introduced into all the current courses in the universities included in this study. In addition, perhaps DL instructors have no need to use computers in their current teaching as teaching by distance is still very traditional and heavily dependent on textbooks rather than on computer-based interaction which ICT can facilitate.

Moreover, the fact that some instructors were unable to decide on this factor might be due to their weakness in using ICT. They might also have believed that commenting on this factor,

about which they had no clear perception, would be making a false accusation, a very strong sin in Islam. As a result, they might have tended to opt for a neutral answer which is "undecided". In fact, this explanation might be applicable to all answers where many participants answered "undecided". Another suggestion could be that they were afraid of offending others.

In terms of distance learners, the results in Table 6.25 show that 57.1% (212), of the respondents said that a lack of ICT support provided by home institutes was affecting their success on their DL to a moderate or major extent. 26.7% (99), of the respondents were unable to decide, perhaps because they had made no effort or had no need to use any kind of ICT in their current study if their studies were mainly related to courses in religion, art, business and humanities; these areas require no deep involvement in using ICT.

6.4.2.3 Academic Libraries Resources

Information resources, traditional or non-traditional, that are available in academic libraries can be considered as the fuel of teaching, learning and research in any university. For example, teaching as well as learning, either by distance or on the campus requires sufficient resources so that both instructors and learners can carry out their tasks appropriately. DL and its stakeholders should also benefit from the information resources available in their academic libraries as these resources play a crucial role in improving and developing the knowledge and skills of such instructors and learners.

Table 6.26: Limitations of AL Resources

Limited library resources				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Not at all	1	0.7	27	7.2
Minor extent	5	4.0	71	19.1
Undecided	62	48.8	139	337.4
Moderate extent	40	31.5	82	22.1
Major extent	10	7.9	40	10.7
No Answer	9	7.1	12	3.2
Total	127	100.0	371	100.0

The results of the study showed that 39.4% (50), of the distance instructors on all courses, as shown in Table 6.26, believed that the shortage of resources in academic libraries had a moderate or major effect on their teaching by distance, although half of distance instructors 48.8% (62), could not decide. Perhaps this was because they do not usually use the AL or even advise their students to do so.

Furthermore, the limited information resources available for distance learners to use on or off-site constitute one of the factors affecting learners studying by distance. Around a third 32.8% (122), of the distance learners stated that the limited resources available in the AL had a negative effect on their current study to a moderate or major extent. 26.3% (98), believed that this factor had only a minor effect or no affect at all on their current study, perhaps due to their strong dependence on textbooks or due to the absence of AL support in the life of distance learners who live away from campus. Moreover, quite a large percentage of learners 37.4% (139), similar to the instructors' results shown above, had no opinion regarding this factor which might suggest that they had no relationship at all with their AL due to their dependence on textbooks as the only resources available to help them pass modules. Another reason might have been that they had no assignments or homework to encourage them to use their AL and therefore they were unable to give a clear opinion on AL resources, as mentioned in Section 6.4.1.11.

6.4.2.4 Internet Access

The availability of Internet access in universities, academic libraries, homes, and indeed anywhere, is considered to be very important (Hirschheim 2005) to link teachers and students, especially those involved in DL programmes, to the information resources, services and support available in their academic libraries. Currently, the Internet plays an important role in linking distance learners with information resources suggested for use by instructors which may not be reached using any other method. The new era of DL, especially in Saudi Arabia, which will be completely based on e-learning, is not viable without having easy access to the Internet wherever instructors and learners are.

Table 6.27: Impact of the lack of Internet access

Lack of Internet access				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Not at all	8	6.4	35	9.5
Minor extent	4	3.1	37	10.0
Undecided	69	54.3	133	35.9
Moderate extent	24	18.9	125	33.6
Major extent	17	13.3	34	9.1
MissingData	5	4.0	7	1.9
Total	127	100.0	371	100.0

However, the study results showed, as illustrated in Table 6.27, that a number of instructors (41=N , 32.2%) believed that the lack of Internet access had a moderate or major effect in a negative sense on their teaching by distance, while the majority (69=N, 54.3%) were unable to decide about this topic. This might be because they were not "Internet-literate", that they

were still using conventional methods of teaching that depended only on textbooks, or that they were unwilling to give a negative response. In addition, instructors may still not be involved in applying e-learning initiatives in these universities which would have involved instructors participating in delivering DL courses via the Internet.

The Internet access points that are available in the country constitute a very important enabler that distance learners may need in order to make their experience of studying by distance fruitful. These days, using the Internet for learning by distance is becoming increasingly important as it is a vital tool in helping such learners to widen their horizons in relation to their courses and to interact with their institute. Thus, Table 6.27 shows that 42.7% (159), of the distance learners believed that the lack of Internet access points had a moderate or major impact on their current study, while only 19.5% (72), of them believed it had only a minor effect or no effect at all. This could suggest that they had no need to use the Internet as part of their current study or that they had easy access to the Internet as they might be located in large cities where the Internet is slightly easier to access. In addition, over a third of respondents 35.9% (133), were unable to decide because their current study, as discovered by this research, did not require them to use the Internet; this could be associated with a lack of skills necessary to deal with IT including the Internet.

6.4.2.5 Work Load

Many distance instructors are usually required to carry out a number of tasks such as being a member of many committees inside and outside the university. Administrative tasks, undertaking research and more, besides their basic duty of teaching on- or off-campus, are a necessity. These tasks may have a negative effect on their teaching, perhaps including distance teaching, as they can absorb a considerable amount of instructors' time.

Table 6.28: Impact of Lack of Time

Too much work (Lack of time)				
Answers	Distance instructors		Distance learners	
	N	%	N	%
Not at all	1	0.7	15	4.1
Minor extent	14	11.1	28	7.5
Undecided	48	37.8	163	44.0
Moderate extent	36	28.4	96	25.8
Major extent	19	14.9	54	14.5
Data Missing	9	7.1	15	4.1
Total	127	100.0	371	100.0

Almost half of instructors 43.3% (55), as shown in Table 6.28, believed that current work overload had a moderated or major negative effect on their teaching by distance. This means that less time and fewer opportunities are available for DL instructors to support distance

learners and so their workload should be adjusted (Bower 2001). This could perhaps affect basic tasks, such as advising distance learners to consult or use information resources available in the AL or through the Internet rather than handouts and textbooks. Hence, instructors may not have the time to communicate with academic libraries to make the necessary arrangements to reserve, provide and set up necessary information services support for their distance learners. For instance, it was discovered qualitatively that instructors are currently making only minimum efforts to teach by distance, efforts which involve only the setting and marking of final exams.

Distance learners also usually have many tasks, including work and family commitments that they have to satisfy besides their current study by distance. These commitments may negatively affect their studies and they may also hinder learners from visiting the AL and using distant resources other than textbooks. Thus, they may not benefit from all the resources and services available in academic libraries, especially with the absence of online services, since learners must be physically able to visit the AL in order to use it. This study considered this factor and found that 40.3% (150), of the distance learners believed that the lack of time available for them to study by distance was badly affecting their studies at moderate or major extent; only 11.6% (43), believed it had little or no effect. This result is supported by Taylor (2006, p.18), and Jayaratne *et al*. (2007, p.717). However, many of the instructors 37.8% (48), and distance learners 44.0% (163), were unable to decide, perhaps because they were uncertain about how much this factor was affecting their current teaching and studying by distance.

6.4.2.6 Interactions

Interactions between instructors, learners, and the institutes and their services are an essential element in education, including in education by distance (Roblyer and Ekhaml 2000; Moore and Anderson 2003, pp.130-131). These interactions should be ensured in DL as well as in traditional forms of learning. For instance, interaction between DL stakeholders could be very beneficial in advising distance learners to use information services and resources other than textbooks.

Table 6.29: Impact of Lack of Interaction

Lack of interaction between DL stakeholders				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Not at all	1	0.7	14	3.8
Minor extent	4	3.1	21	5.6
Undecided	29	22.9	79	21.3
Moderate extent	57	44.9	153	41.2
Major extent	28	22.1	96	25.9
No Answer	8	6.3	8	2.2
Total	127	100.0	371	100.0

Table 6.29 shows that the majority of instructors 67% (85), believed that a lack of formal interactions between them and distance learners presently had a moderate or major negative effect on their teaching by distance. Only 3.8% (5), of the instructors believed it had only a minor effect or no effect at all on their current teaching by distance. This might suggest that a small number of instructors were satisfied with the current mode of teaching in DL, a mode that relies only on text books with less interaction, and that they considered direct interaction as unnecessary. In fact, this was also supported by this study's results acquired from interviews where many interviewees indicated that current DL lacks formal interaction among DL stakeholders although this can be vital in achieving the highest quality of education by distance.

In addition, the results demonstrate that a large percentage of learners 67.1% (249), believed that the lack of interaction in DL among all DL stakeholders has a moderate or major affect in their current study which can be considered as one of the factors that make their study by distance less successful than it should be. This factor was ranked as the most important factor that affected negatively distance learners from among all those included in this survey.

6.4.2.7 Adopting New Information Technologies

With the fast growth of the ICT sector and the current projects for adopting new technologies in Saudi public universities to improve and develop education at all its levels, DL should benefit from the web and its technologies in introducing and delivering DL to all those who need it. In fact, IT is likely to help facilitate teaching and learning processes, making these more interesting experiences. So, failure to follow such developments might be damaging and could lead to poor educational output. One of the technologies that was examined here and has been available for quite a while is Web 2.0 with all its applications such as Wiki, prolog, and Face book.

Table 6.30: Impact of Failing to Adopt New Technologies

Failure to adapt new technologies such as Web 2.0				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Not at all	2	1.6	23	6.2
Minor extent	4	3.1	44	11.9
Undecided	25	19.8	80	21.6
Moderate extent	56	44.1	90	24.2
Major extent	23	18.1	117	31.5
No Answer	17	13.3	17	4.6
Total	127	100.0	371	100.0

This study, as Table 6.30 shows, examined distance instructors' and learners' views regarding the importance of using new technologies and if such technologies affected their current study by distance. The results show that 62.2% (79), of the instructors believed that a failure to adopt important technologies, such as Web 2.0, in current DL has a moderate or major negative effect on their current teaching by distance. This result indicates that adopting new technologies in the current DL is limited. It also suggests that instructors are very keen to experience and participate in more developments and new technologies that can be used to develop and support DL stakeholders.

Turning to distance learners' views, it was found that many of them 55.7% (207), believed that failing to adopt new technologies, such as Web 2.0, during their current study by distance had a moderate or major negative effect on their study. In addition, 21.6% (80), were unable to decide about this topic; this may have been because their involvement with such technologies in their current study, or in their life in general, was limited. A small percentage of respondents 18.1% (67), believed that the failure to adopt new technologies had only a minor effect or no effect at all on their current study by distance. This could also suggest that, currently, study by distance still depends on traditional tools such as textbooks as the major tool of learning and so IT such as the Internet is not essential.

6.4.2.8 Academic library Location

The physical location of the AL is considered to be very important for both instructors and learners, especially with regard to current DL practice where online services and other support designed for DL were found to be lacking. For instance, Cain and Reynolds (2006, p.60) stated:

> Note that the academic facilities of facility in my major library, classrooms and technology are fairly high in importance but are also fairly high in satisfaction. These facilities will be important areas to continue to address to ensure keeping higher satisfaction levels.

Table 6.31: Impact of Location of the Academic Library

Distant location of AL				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Not at all	20	15.8	17	4.6
Minor extent	5	4.0	27	7.2
Undecided	67	52.8	81	21.9
Moderate extent	11	8.6	124	33.4
Major extent	17	13.3	115	31.0
No Answer	7	5.5	7	1.9
Total	127	100.0	371	100.0

Instructors were almost equally divided regarding the impact of the locations of academic libraries, as illustrated in Table 6.31. For instance, 21.9% (28), believed that the distance and location of the AL played a moderate to a major role in their teaching by distance and considered it as one barrier to teaching by distance. This could be because some instructors might live away from the campus and did not enjoy easy access, physically or through the Internet, to library resources and services whenever and wherever they wanted them. In addition, work overload during their time on campus, as shown above in 6.4.2.5 may be responsible for them not using the AL during their time on campus. Conversely, 19.8% (25), of the participants believed that the distance and location of the AL had no effect or minor effect on their current teaching by distance; these participants might live on the campus and so their access to the library would be easy or perhaps they did not need to use the AL in their teaching by distance. The rest 52.8% (67) were unable to decide on this issue perhaps because they were not in the habit of using the AL in their teaching in general, including teaching by distance, and so did not wish to comment on this question. Conversely, they may have had easy online access to the information resources available in the library.

Being a distance learner usually means that learning takes place away from the campus so learners could be physically located anywhere in the country. One of the services that distance learners might need to support their study is gaining access to the AL resources and services by using the Internet or by any other means of communication. The results indicate that the majority of distance learners 64.4% (239), believed that the distant location of the AL was one of the most negative factors that affected their learning by distance at a moderate or major extent.

6.5 Part Three: Current Services in Academic Libraries

6.5.1 Current Use of Academic Libraries

Encouraging the habit of using the AL should be an important part of any DL programme, especially for its stakeholders. For example, DL stakeholders could be encouraged and

directed to use their academic libraries efficiently. In contrast, depending only on textbooks and other ready-made materials does not always help in developing DL stakeholders' knowledge and skills in a way that can satisfy them, the institutes or the labour market. Thus, this study looked at the current habits of DL stakeholders regarding their use of academic libraries that are related to their home institute or other academic libraries that are perhaps closer to their physical locations.

Table 6.32: Current Usage of Academic Libraries

Your academic library				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Never	23	18.1	125	33.7
Rarely (once a semester)	15	11.9	111	29.9
Undecided	41	32.3	78	21.0
Often (every month)	32	25.1	26	7.0
Very often (every week)	14	11.1	31	8.4
No Answer	2	1.5	0	0
Total	127	100.0	371	100.0
The nearest academic library				
Answers	**Distance instructors**		**Distance learners**	
	N	**%**	**N**	**%**
Never	51	40.0	159	42.9
Rarely (once a semester)	14	11.0	68	18.3
Undecided	41	32.8	88	23.7
Often (every month)	10	7.8	39	10.5
Very often (every week)	3	2.2	14	3.8
No Answer	8	6.2	3	0.8
Total	127	100.0	371	100.0

The analysis of responses from DL instructors, as illustrated in Table 6.32, shows that a third of participants 36.2% (46), often or very often used their own AL to support their teaching while 30% (38), stated that they rarely or never used it. This result raises a question about the current condition of academic libraries and their roles in supporting teaching and learning. In addition, 51% (65), of respondents rarely or never used other academic libraries in the country. This result suggests that there is a lack of cooperation and coordination among academic libraries in the country; this was also discovered qualitatively. As mentioned above, the results show that 30% of instructors never or rarely used the AL and this seems surprising as working in universities involves teaching and research which, in turn, usually depend on using an AL.

An analysis of the results obtained from distance learners shows that the majority of respondents 63.6% (236), stated that they never or rarely used their home institute's AL while only a small percentage 15.4% (57), used it often or very often. In addition, the results show that a high percentage of participants 61.2% (227), never or rarely used other academic libraries and only a small percentage 14.3% (53), often or very often used such libraries. This finding could be considered as a natural result of the lack of cooperation between academic

libraries in the country. In addition, distance learners might have no intention of using any libraries to support their current study, where textbooks are the only sources of learning, since these can be acquired from bookstores; this was found to be the current practice in Saudi DL.

6.5.2 Methods of Using Academic Libraries

Finding out about participants' behaviour and habits in using the AL could help in determining the shape of the information services that might be developed to support their learning. Different forms of access are available to instructors and learners to use the academic libraries in Saudi Arabia.

Table 6.33 Methods of Using the Academic Library by Instructors

Personally			
Answers	**N**	**%**	***Rank**
Never	13	10.3	1
Rarely	9	7.1	
Undecided	40	31.5	
Often	34	26.8	(48%)
Very often	27	21.2	
No Answer	4	3.1	
Total	127	100.0	
By Telephone			
Answers	**N**	**%**	
Never	32	25.2	2
Rarely	39	30.7	
Undecided	31	24.4	
Often	13	10.2	(14.2%)
Very often	5	4.0	
No Answer	7	5.5	
Total	127	100.0	
AL web site			
Answers	**N**	**%**	
Never	26	20.4	3
Rarely	26	20.4	
Undecided	50	39.4	
Often	9	7.2	(9.6%)
Very often	3	2.4	
No Answer	13	10.2	
Total	127	100.0	
Third Party			
Answers	**N**	**%**	
Never	59	46.5	4
Rarely	31	24.4	
Undecided	20	15.8	
Often	4	3.1	(3.9%)
Very often	1	0.8	
No Answer	12	9.4	
Total	127	100.0	
By E-Mail			
Answers	**N**	**%**	
Never	38	30.0	5
Rarely	39	30.8	
Undecided	37	29.1	
Often	2	1.5	(3.0%)
Very often	2	1.5	
No Answer	9	7.1	
Total	127	100.0	

✳ **Ranking is based on the overall percentage of methods often or very often used by instructors compared to other methods.**

Table 6.34: Methods of Using the Academic Library by Learners

Personally			
Answers	**N**	**%**	***Rank**
Never	110	29.6	
Rarely	78	21.1	**1**
Undecided	78	21.1	
Often	80	21.6	**(26.9%)**
Very often	20	5.3	
No Answer	5	1.3	
Total	371	100.0	
AL web site			
Answers	**N**	**%**	
Never	122	32.9	
Rarely	89	24.0	**2**
Undecided	87	23.4	
Often	49	13.3	**(19.2%)**
Very often	22	5.9	
No Answer	2	0.5	
Total	371	100.0	
By E-Mail			
Answers	**N**	**%**	
Never	176	47.4	
Rarely	71	19.1	**3**
Undecided	49	13.2	
Often	31	8.3	**(19.1%)**
Very often	40	10.8	
No Answer	4	1.2	
Total	371	100.0	
Third Party			
Answers	**N**	**%**	
Never	205	55.2	
Rarely	49	13.2	**4**
Undecided	55	14.9	
Often	40	10.8	**(15.1%)**
Very often	16	4.3	
No Answer	6	1.6	
Total	371	100.0	
By Telephone			
Answers	**N**	**%**	
Never	170	45.9	
Rarely	100	27.0	**5**
Undecided	54	14.6	
Often	33	8.8	**(11.4%)**
Very often	10	2.6	
No Answer	4	1.1	
Total	371	100.0	

✴ **Ranking is based on the overall percentage of methods often or very often used by learners compared to other methods.**

Academic libraries users, including distance instructors and learners, use different techniques and methods to acquire information resources and services from their own academic libraries. For instance, the results illustrated in Table 6.33 show that 48% (61), of the instructors often or very often preferred to visit the AL personally; this was the most common way of using the AL from among all five methods. The second, much less common method among instructors was the telephone as only 14.2% (18), of respondents often or very often used this, while only

9.6% (12), of respondents often or very often consulted or used the AL's website. Other methods, such as using e-mail, which is serviced through the academic libraries' web-sites to receive users' enquiries, were limited and less popular than expected. Only 3% (4), of the participants often or very often used this method to make the necessary contact with their AL. This could be related to the fact, obtained qualitatively, where many participants, especially learners, decided that academic libraries usually ignore their requests by telephone, by mail, and lately by e-mail. In addition, this could also be related to the current weakness of the ICT infrastructure in Saudi Arabia where many participants noted numerous difficulties in dealing with the Internet such as its limited availability, the high cost of subscriptions and computers, and the slowness of the Internet. In addition, this could also be associated with the weakness of some participants' skills in IT including the Internet and its services.

In addition, examining these methods was used as a tool to analyse learners' habits and their preferences in using academic libraries in order to help identify the most appropriate method to serve and satisfy their needs in the future as illustrated in Table 6.34. For instance, making a visit in person in order to use the AL was ranked the most likely method often or very often used with 26.9% (100), of using the AL by distance learners. This result implies that academic libraries should be supportive of this by building the necessary unit support for DL stakeholders inside their libraries and by revising their opening hours to allow more users to visit and use the library. This method is still the preferred method for many users as they prefer face-to-face contact with librarians and with information resources. Perhaps some users are still not confident with information technologies to support their learning needs; it may also be associated with the current weak AL Internet services, discovered qualitatively.

Consulting and using the AL websites was found to be the second method often or very often used or preferred by distance learners with 19.2% (61), of them choosing this option; this indicates and emphasises the need to improve AL websites to include all information services and resources needed by DL stakeholders. Comparing this result with a previous finding, that only 3% of instructors used e-mail to contact their AL, could suggest that some of the participants are using the library websites to find other information rather than sending enquiries by e-mail such as checking about opening times, services, searching OPAC, or accessing contact details and information about their policies. In general, these two methods: using the AL physically or through websites must be considered when planning or designing information services to support distance learners by academic libraries or by the DL deanships.

The method that was ranked third by distance learners was the use of e-mail often or very often, with 19.1% (41), expressing this preference. This method should be seriously considered, as it is a fast, reliable and reasonably cheap tool. In the interview analysis chapter, some distance learners complained about the slowness of the e-mail system; sometimes respondents' e-mails were not delivered to the academic libraries. This problem, which could hinder distance learners from contacting their library in the future, should be monitored by the library administrations to ensure high-quality services. The next most popular tool for using the academic libraries by distance learners was by a third party while using the telephone in consulting and using the academic library was the least popular.

6.5.3 Types of Resources Used by DL Stakeholders

The information resources available in the AL, as well as the information services that are provided, are at the core of any library, as is ease of access. A range of traditional information resources, such as books, journals, government publications and documents, together with non-traditional ones, such as off- and on-line databases, e-books, e-journals, and audio-visual resources, are currently available in all the academic libraries included in this study.

Table 6.35: Types of Resource Used by DL Instructors

Printed resources			
Answers	**N**	**%**	***Rank**
Never	14	11.2	1
Rarely	8	6.2	
Undecided	18	14.2	
Often	56	44.0	
Very often	27	21.3	(65.3%)
No Answer	4	3.1	
Total	127	100.0	
Electronic resources			
Answers	**N**	**%**	
Never	21	16.6	2
Rarely	16	12.5	
Undecided	66	52.0	
Often	11	8.6	
Very often	7	5.5	(14.1%)
No Answer	6	4.8	
Total	127	100.0	
Audio/visual resources			
Answers	**N**	**%**	
Never	52	40.9	3
Rarely	26	20.4	
Undecided	32	25.2	
Often	5	4.0	
Very often	0	0.0	(4.0%)
No Answer	12	9.5	
Total	127	100.0	

❋ **Ranking is based on the overall percentage of resources often or very often used by instructors.**

Table 6.36: Types of Resource Used by DL Learners

Printed resources			
Answers	**N**	**%**	***Rank**
Never	79	21.3	1
Rarely	46	12.4	
Undecided	88	23.7	
Often	93	25.1	(41.8%)
Very often	62	16.7	
No Answer	3	0.8	
Total	371	100.0	
Electronic resources			
Answers	**N**	**%**	
Never	97	26.0	2
Rarely	54	14.6	
Undecided	96	25.9	
Often	73	19.7	(32.6%)
Very often	48	12.9	
No Answer	3	0.9	
Total	371	100.0	
Audio/visual resources			
Answers	**N**	**%**	
Never	216	58.2	3
Rarely	76	20.4	
Undecided	41	11.1	
Often	17	4.6	(9.2%)
Very often	17	4.6	
No Answer	4	1.1	
Total	371	100.0	

❋ **Ranking is based on the overall percentage of resources often or very often used by learners.**

Firstly, instructors, as illustrated in Table 6.35, stated that they used printed resources often or very often compared to other information resources available in the AL (65.3%, 83). Audio and visual resources were the least popular with only 4% (5), using them often. However, a small percentage of the instructors 14.1% (18), were using e-resources often or very often. This result emphasises the importance of developing these kinds of resources in academic libraries, as well as providing the necessary support to make them one of the information resources that should be accessible for all users. The lack of online resources in Arabic, the weakness of the Internet, the weak skills of some instructors in the English language, and a lack of ICT support from the academic libraries were among those factors that might reduce the full benefits of online resources available in the academic libraries.

Secondly, similar to the results obtained from distance instructors, the three main resources as illustrated in Table 6.36 were also examined to identify which distance learners used most. Printed resources were also the most popular sources of information with a percentage of 41.8% (155) using them often or very often; this is similar to the result from instructors. This could be related to the ongoing dependency of current DL on textbooks, many of which can be

found in academic libraries, or the lack of alterative resources. The second source of information that was often or very often used by distance learners, after printed resources, was e-resources, with a percentage of 32.6% (121). The sources of information distance learners were least likely to use were audio/visual resources with a percentage of 9.2% (34).

Overall, the results obtained from DL stakeholders illustrate the importance of printed as well as e-resources. Therefore, it is very important for academic libraries to guarantee DL stakeholders easy access to these two kinds of resource. However, it should also be mentioned that the results showed that the use of e-resources among instructors and learners was still quite low compared the use of printed resources. This result, as mentioned above, could be due to the existing dependence of DL on textbooks, together with the lack of digitised Arabic resources and contents available online or via other storage devices. It also could be because DL stakeholders lack the necessary skills in dealing with technologies, as shown in 1.6.1 and in the interview chapter.

6.5.4 Reasons for Using Information Resources

Generally, the information resources available in academic libraries are acquired to support teaching, learning and research. Important data were acquired from DL stakeholders regarding their habits in using the information resources available in their academic libraries. Several reasons for using the AL were presented and the following section analyses the findings from both distance instructors and learners.

Table 6.37: Reasons for Using Information Resources by Instructors

Supporting my current teaching/study by distance			
Answers	**N**	**%**	***Rank**
Never	6	4.8	
Rarely	8	6.2	
Undecided	30	23.7	**1**
Often	58	45.7	
Very often	21	16.5	**(62.2%)**
No Answer	4	3.1	
Total	127	100.0	
Keeping up-to-date			
Answers	**N**	**%**	
Never	3	2.3	**2**
Rarely	10	7.9	
Undecided	51	40.2	**(47.3%)**
Often	32	25.2	
Very often	28	22.1	
No Answer	3	2.3	
Total	127	100.0	
Leisure			
Answers	**N**	**%**	
Never	45	35.4	**3**
Rarely	30	23.6	
Undecided	31	24.4	**(11.9%)**
Often	5	4.0	
Very often	10	7.9	
No Answer	6	4.7	
Total	127	100.0	

❋ Ranking is based on the overall percentage of reasons often or very often in using IRs by instructors.

Table 6.38: Reasons for Using Information Resources by Learners

Keeping up-to-date			
Answer	**N**	**%**	***Rank**
Never	50	13.4	
Rarely	70	18.9	**1**
Undecided	67	18.1	
Often	72	19.4	**(47.7%)**
Very often	105	28.3	
No Answer	7	1.9	
Total	371	100.0	
Supporting my current teaching/study by distance			
Answer	**N**	**%**	
Never	23	6.1	**2**
Rarely	52	14.1	
Undecided	128	34.5	**(43.1%)**
Often	76	20.4	
Very often	84	22.7	
No Answer	8	2.2	
Total	371	100.0	
Leisure			
Answer	**N**	**%**	
Never	63	17.0	**3**
Rarely	61	16.4	
Undecided	159	42.9	**(21.5%)**
Often	50	13.4	
Very often	30	8.1	
No Answer	8	2.2	
Total	371	100.0	

❋ Ranking is based on the overall percentage of reasons often or very often in using IRs by learners.

The data obtained from distance instructors, as illustrated in Table 6.37, show that most of them 62.2% (79), used the information resources available in the AL often or very often to support their current teaching, which should include teaching by distance. This result puts a good deal of pressure on academic libraries in terms of supporting their users, including DL instructors, who may use the AL for their teaching by distance. The second ranked reason, at 47.3% (60), of DL instructors, was often or very often to keep up-to-date with new information. This result also shows that many of the DL instructors are sufficiently interested to widen their knowledge and keep up to date which can have a positive effect on the quality of education and on all their learners. On the other hand, using the AL and its resources often or very often for purposes other than teaching and research, such as for leisure, was ranked third with a score of 11.9% (15). This seems natural as academic libraries usually concentrate on supporting teaching, learning and research.

Several reasons might be also put forward to explain distance learners' use of academic libraries. The most frequent reason given for distance learners to use the information resources available in the academic libraries as illustrated in Table 6.38 was often or very often for keeping up-to-date (with a percentage of 47.7%, 177). This might be expected given that the existing DL is still heavily dependent on one information resource (i.e. textbooks) and academic libraries are generally where these books, and other books and resources that might support textbooks, are housed. Supporting learners' current study at a distance was ranked by distance learners as the second reason (with a percentage of 43.1%, 92) for using the AL and its resources often or very often. This result, which might be expected to be ranked first, could be related to the current policies of academic libraries which omit distance learners from basic services, such as borrowing, unless they make a down payment to borrow two books for a short time. Academic libraries also do not provide reserved book services, especially for textbooks, which can allow distance learners to use them. Leisure purposes were the least popular reason for using information resources often or very often in the AL; this scored a percentage of 21.5% (80), among learners. In general, therefore, distance learners seem to acquire information resources for the purpose of keeping up-to-date with new information related to their study and for the purpose of studying.

6.5.5 Factors Affecting the Current Use of the Academic Library

Several factors may have a negative impact on users' attitudes towards using their AL, including those who are involved in DL programmes such as instructors and learners teaching and learning by distance. Below, percentages have been used to rank and classify these factors

according to the respondents' answers, starting with those factors which most affected instructors and learners in the use of their AL. However, it should be mentioned that most of the results concerning this theme are similar to results obtained by interview.

6.5.5.1 Factors Affecting the Current Use of the Academic Library by DL instructors

According to DL instructors, several factors negatively affect their use of the academic libraries. All these factors have been explored individually but have been ranked according to the extent of their effect.

Table 6.39: Factors Affecting the Current Use of the AL by DL Instructors
(*Ranking scale: 1= factor having most effect; 16= factor having least effect)

*Rank	Statement		Not at all	Minor extent	Undecided	Moderate extent	Major extent	No Answer	Total
1	Library fails to market its services among DL stakeholders	N	5	5	18	56	34	9	127
		%	3.9	3.9	14.2	44.1	26.8	7.1	100
2	Absence of information literacy programmes in the AL	N	2	6	23	55	33	8	127
		%	1.6	4.7	18.1	43.3	26.0	6.3	100
3	No IS support designed for DL in the library	N	4	8	39	46	24	6	127
		%	3.1	6.3	30.7	36.2	18.9	4.7	100
4	Weaknesses of library website	N	4	13	44	37	17	12	127
		%	3.1	10.2	34.6	29.1	13.4	9.4	100
5	There are not enough resources (books, journals, e-resources)	N	9	8	56	34	13	7	127
		%	7.1	6.3	44.1	26.8	10.2	5.5	100
6	Short loan (period and quantity)	N	11	18	45	37	6	10	127
		%	8.7	14.2	35.4	29.1	4.7	7.9	100
7	Shortage of Internet access points in the library	N	14	8	50	30	11	14	127
		%	11.0	6.3	39.4	23.6	8.7	11.0	100.0
8	Lack of librarians' skills and knowledge in providing information services	N	7	20	47	38	3	12	127
		%	5.5	15.7	37.0	29.9	2.4	9.4	100.0
9	Librarians never completely answer my questions	N	6	19	47	32	8	15	127
		%	4.7	15.0	37.0	25.2	6.3	11.8	100.0
10	Resources are out of date in the library	N	6	14	55	20	20	12	127
		%	4.7	11.0	43.3	15.7	15.7	9.4	100.0
11	Frequent failure of the library system	N	3	32	43	32	4	13	127
		%	2.4	25.2	33.9	25.2	3.1	10.2	100.0
12	Lack of full-text databases in my field in the library	N	4	17	61	22	12	11	127
		%	3.1	13.4	48.0	17.3	9.4	8.7	100.0
13	Distant location of AL	N	27	20	37	25	8	10	127
		%	21.3	15.7	29.1	19.7	6.3	7.9	100.0
14	Opening hours	N	19	18	48	7	23	12	127
		%	15.0	14.2	37.8	5.5	18.1	9.4	100.0
15	I do not know how to get the information myself	N	54	26	20	20	0	7	127
		%	42.5	20.5	15.7	15.7	0	5.5	100.0
16	Fear of using the AL's automated system	N	76	14	25	3	1	8	127
		%	59.8	11.0	19.7	2.4	0.8	6.3	100.0

❋ **Ranking is based on the overall percentage of factors that have moderate extent or major extent in using ALs by instructors.**

1. Marketing Information Services

Marketing in libraries is considered as a tool to inform all users about the academic libraries' services and resources. Failure to carry out this task could negatively influence users' attitudes towards using the AL. The study's results, as illustrated in Table 6.39, show that the academic libraries included in this study have failed to market their information services among DL stakeholders, including instructors. This was ranked as the most important factor (by 70.9%, 90=N of participants) affecting the behaviour and habits of DL instructors in using their academic libraries. This result confirms the result obtained in the interviews.

2. Lack of Information Literacy

Information literacy programmes in academic libraries play an important role in helping learners to use the library, select the right information, and overcome any obstacles they may face in using AL services and resources; they are also considered to be a tool for marketing AL services. Information literacy can play two roles: improving users' abilities to use information services and resources, and improving users' understanding of the information resources and services that are available for them to use. However, a lack of these kinds of programmes in academic libraries can be related to the lack of a marketing strategy in general, as mentioned above. Usually, marketing AL services involves providing effective training programmes for all users in using AL services; these training programmes must be circulated and advertised among all users without discrimination. In fact, the failure of academic libraries to offer information literacy programmes was found to be the second highest factor that negatively affected the DL instructors' use of their AL, with a high percentage of 69.3% (88). In relation to this result, the interview results also mentioned the weakness of information literacy programmes offered by academic libraries as there were no well designed and scheduled training programmes in any of the academic libraries included in this study.

3. Information Services Support for DL

Even though the academic libraries included in this study should serve all university users, including DL stakeholders, the responses from instructors showed that these academic libraries still do not provide the necessary support for DL stakeholders. This is because, currently, librarians are not prepared or even appointed to help and serve DL stakeholders in their distance teaching. This factor was ranked third with a percentage of 55.1% (70). In fact, and according to the general practice of many academic libraries in the western world where their institutes offer DL programmes, a separate unit or librarians can be assigned and

dedicated to serve DL stakeholders. This practice was not found in any of the academic libraries included in this study.

4. Academic Library Website

The Internet in general and library websites in particular, play a unique role these days in linking users with their AL, especially those who teach or study by distance. The weaknesses of AL websites included in this study were ranked as the fourth factor which negatively affected DL instructors in benefiting from AL services. Thus, DL instructors might be unable or unwilling to include such websites into their distance teaching since current AL websites are often without solid and useful information services designed and dedicated to serve DL stakeholders. Thus, 42.5% (54), of instructors thought that weaknesses in the websites had an effect on their usage of the AL. For example, limited access to information resources that are available on the websites, the lack or poor quality of the available guides, the design of and information available about the information services and resources discovered qualitatively were seen as hindering users from fully using the academic libraries.

5. Shortage of Information Resources

The quantity as well as the quality of information resources available in the academic libraries is an important aspect of evaluating academic libraries and their services since the AL should provide its users with the resources they need for teaching, learning and research. Distance instructors ranked the lack of information resources available in current academic libraries as fifth among the factors that hindered them from fully using the academic libraries; this factor scored a percentage of 37% (47). In fact, shortages in the number of available textbooks and other resources, as mentioned in the interview chapter, and the lack of online or database resources in Arabic are key factors perceived as obstacles in using academic libraries.

6. Short Loans

The loan of materials in academic libraries can be a very attractive service if it is designed to meet users' needs. DL instructors, however, regarded the loan policy, which stated that books could be borrowed for a short period of time only, or which limited the number of books that could be borrowed, as a factor limiting their desire to use the AL. 33.8% (43), of the DL instructors who usually teach on campus, believed that the circulation policy, especially in terms of the quantity and the period of time available to borrow books, was limiting their use of academic libraries and that this was a serious problem, not only in teaching by distance, but also in their general use.

7. Internet Access in the Academic Library

The number of terminals linked to the Internet in academic libraries is important in attracting users to visit and use the library. Distance instructors stated that the shortage of terminals linked to the Internet in the AL does not help them to use the AL. They placed this factor as seventh with a percentage of 32.3% (41), in terms of it having a negative effect on their usage of the AL. This lack of terminals linked to the Internet may affect not only instructors, but also learners from using academic libraries and make the libraries less attractive.

8. Lack of Librarians' Skills and Knowledge in Providing Information Services

Librarians play an important role in academic libraries as they are the people who support and provide the services so that learners can make the best use of their libraries. For instance, librarians failing to answer users' questions or provide them with the necessary support at the right time can be very disappointing. DL instructors saw librarians as a factor in hindering their efforts to use the AL. 32.2% (41), believed that the lack of skills and knowledge of librarians in answering and providing information services that could satisfy their needs limited their use of the AL. This result is supported by data mentioned in (9) as well as data acquired through the interviews and also in the literature review. Thus, the lack of skills of many librarians in using databases, especially those published in English, is very common and could be an important factor in this finding.

9. Librarians Never Completely Answer Questions

Librarians in academic libraries play a unique role in helping users to benefit fully from the information resources and services available in the library. Distance instructors, with a percentage of 31.5% (40), decided that the librarians often did not completely answer their questions and this could play an important role in them not using the AL. This could link to the result mentioned in (8) and could be a result of the inability of librarians to answer users' questions because of their poor performance. It can be also said that librarians' habits play an important role in promoting the use of academic libraries and can be, at the same time, among the obstacles hindering users from using academic libraries effectively. In fact, the failure of librarians in terms of their commitment and desire to support users, because of poor working conditions such as low salaries, poor promotion prospects and lack of continuing training, could badly affect their productivity even if their skills are strong.

10.   Outdated Resources

Academic libraries, in line with their plans, policies and users' needs, should work hard to acquire the most recent resources available in the publishing market as a way of improving the quality of resources in the library; this is a way of attracting users to the library. However, the results showed that 31.4% (40), of instructors considered the information resources available in the academic libraries as out of date. This was given as a reason that affected their usage of their AL. This factor may indeed hinder DL instructors from using the library or may have lead to their attention being directed towards other sources of information such as the Internet, handouts, lecture notes, and others. In addition, this may have encouraged instructors to direct their distance learners away from the library which could have a negative effect on their teaching by distance.

11.   Academic Library System Failures

The automation system and websites in academic libraries should be working 24/7. Providing prompt and quick maintenance, qualified staff and appropriate infrastructures can lessen the impact of such problems. However, DL instructors blamed this factor as an obstacle in using the AL and benefiting from its resources. 28.3% (36), of the DL instructors said that this factor was partly to blame for them not using the AL as extensively as they might. In fact, academic libraries must be prepared to deal with this problem as quickly as possible to prevent losing users and also their reputation.

12.   Shortages of Full-text Databases

Another factor that might be linked to the previous one mentioned in (f), is the lack of full-text databases in the AL that are related to users' interests such as Arabic databases, e-journals and e-books. Distance instructors, with a percentage of 26.7% (34), considered this factor to be the seventh factor that badly affected their use of the AL. The limited number (or total absence) of full-text databases in the AL can be very frustrating, especially in teaching or learning by distance, as distance instructors cannot then direct their learners to them while they are away from campus. This can lower the quality of teaching and learning by distance and cannot therefore support instructors and learners who struggle to find full-text resources.

- **Other Factors**

Other factors were seen as less important in terms of hindering instructors from using the AL. However, even these are considered worthy of comment. These factors are ranked according to the degree of their effect, as illustrated in Table 6.39. However, the most noticeable factor that came at the end of the list was fear of using the AL's automated system. 3.2% (4),

believed that this had only a moderate effect or major effect on their use of the AL. So although, with the rapid growth of the Internet in the country, automated library systems (OPACs) are becoming easier to use, libraries' automated systems are still perceived by a minority of instructors as an obstacle to using academic libraries. In addition, the distant location of academic libraries was seen by DL instructors (with a percentage of 26%, 33) as a factor in hindering them and other users from using the academic libraries, similar to the result mentioned in 6.4.2.8. In addition, the opening hours of academic libraries were perceived as affecting their usage by 23.6% (30), of respondents. Another result showed that some DL instructors, with a percentage of 15.7% (20), still lack knowledge about how to get information from the library by themselves. This result could be related to the lack of training and information literacy programmes offered by academic libraries to their users, as mentioned in (2). In conclusion, it should be noticed that many respondents' answers were located in the "undecided" category which may be related to a number of factors as follows:

- Respondents may be unwilling to provide clear answers;
- Respondents make little use of academic libraries and therefore have limited experience on which to base their answers;
- Respondents might be unsure of being able to provide 100% correct answers and therefore preferred to provide neutral answers;
- Respondents believed, or were afraid, that providing an answer that apportioned blame could be considered as lying; this is a serious sin in Islam.

6.5.5.2 Factors Affecting the Current Use of the Academic Library by DL Learners

Many of the factors identified above by distance instructors may play a role in discouraging current distance learners from using AL services and resources. These factors were extracted from several studies included in the literature review and are introduced here for examination. Percentages were used to rank those factors which had a minor or major negative influence on distance learners' use of their AL, with major influences having the highest ranking.

Table 6.40: Factors Affecting the Current Use of the AL by DL Learners
(*Ranking scale: 1= factor with most effect; 16= factor with least effect)

*Rank	Statement		Not at all	Minor extent	Undecided	Moderate extent	Major extent	No Answer	Total
1	No information services support designed for DL at the library	N	21	35	66	169	70	10	127
		%	5.7	9.4	17.8	45.6	18.9	2.7	100.0
2	Library fails to market its services among DL stakeholders	N	18	56	56	147	85	9	127
		%	4.9	15.1	15.1	39.6	22.9	2.4	100.0
3	Absence of information literacy programmes in the AL	N	18	32	91	141	78	11	127
		%	4.9	8.6	24.5	38.0	21.0	3.0	100.0
4	Weaknesses of library websites	N	23	35	107	139	65	2	127
		%	6.2	9.4	28.8	37.5	17.5	0.5	100.0
5	Short loan (period and quantity)	N	33	38	97	147	50	6	127
		%	8.9	10.2	26.1	39.6	13.5	1.6	100.0
6	Distant location of AL	N	28	95	87	62	89	10	127
		%	7.5	25.6	23.5	16.7	24.0	2.7	100.0
7	Lack of full text databases in my field in the library	N	26	61	138	98	37	11	127
		%	7.0	16.4	37.2	26.4	10.0	3.0	100.0
8	Shortage of Internet access points in the library	N	30	50	145	96	36	14	127
		%	8.1	13.5	39.1	25.9	9.7	3.8	100.0
9	There are not enough resources (books, journals, e-resources)	N	31	40	167	94	33	6	127
		%	8.4	10.8	45.0	25.3	8.9	1.6	100.0
10	Librarians never completely answer my questions	N	25	48	160	100	23	15	127
		%	6.7	12.9	43.1	27.0	6.2	4.0	100.0
11	Resources are out of date in the library	N	46	60	145	74	37	9	127
		%	12.4	16.2	39.1	19.9	10.0	100.0	100.0
12	Opening hours	N	67	76	113	60	44	11	127
		%	18.1	20.5	30.5	16.2	11.9	3.0	100.0
13	I do not know how to get the information myself	N	117	84	73	55	33	9	127
		%	31.5	22.6	19.7	14.8	8.9	2.4	100.0
14	Lack of librarians with skills and knowledge in providing information services	N	51	43	185	60	15	17	127
		%	13.7	11.6	49.9	16.2	4.0	4.6	100.0
15	Frequent failure of the library system	N	60	81	157	53	12	8	127
		%	16.2	21.8	42.3	14.3	3.2	2.2	100.0
16	Fear of using the AL automated system	N	144	65	95	46	13	8	127
		%	38.8	17.5	25.6	12.4	3.5	2.2	100.0

❋ **Ranking is based on the overall percentage of factors that have moderate extent or major extent in using ALs by learners.**

According to results presented in Table 6.40, the first and most important reason for not using AL by distance learners, with a percentage of 64.5% (239), was that academic libraries still have no information services to support and serve DL stakeholders; this was ranked third by instructors. The second most important obstacle facing distance learners in using academic libraries, which was ranked first by instructors, was that academic libraries failed to market their services among DL stakeholders; this problem scored a percentage of 62.5% (232). In addition, the lack of IL programmes in academic libraries, which was ranked second by instructors, was ranked by distance learners as the third most important factor (with a percentage of 59%, 219) which affected their current use of the AL while weaknesses in the AL website was ranked as the fourth factor that had a negative impact on distance learners' use of the AL with a percentage of 55% (204)of respondents.

Finally, the least important factor, with a percentage of 15.9% (59), of respondents, was fear of using the AL automated system; this was similar to the result mentioned above by instructors. This might have been seen in the past as a strong factor in hindering users from using libraries but today, using a library's automated system should be made easy. Moreover, other factors, not mentioned above but included in Table 6.40, should be considered by academic libraries and others in planning and designing information services for DL stakeholders.

Summary

Several factors were found to be responsible for discouraging DL stakeholders from using academic libraries. The most common reasons given by both instructors and learners, and which were ranked as the most important, were as follows:

1. Library fails to market its services among DL stakeholders;
2. No information services support designed for DL in the library;
3. Absence of information literacy programmes in the AL;
4. Weaknesses of libraries' websites;
5. Short loans (period and quantity);
6. Insufficient resources (books, journals, e-resources);
7. Distant location of the AL.

In conclusion, these seven factors, along with others mentioned in 6.5.5**,** should be considered in developing and designing information services for both distance instructors and learners. These factors should be addressed by the academic libraries to ensure qualified information services for both on- and off-campus users.

6.5.6 Awareness of Information Services

Examining the awareness of DL stakeholders of the information services that are available or not available in the academic libraries is very important in finding out how effectively these libraries serve their users, including those who are involved in DL programmes. This analysis, as illustrated in Table 6.41, may serve as a tool in understanding to what extent DL stakeholders are aware of services offered by their academic libraries; these can be related to strengths or weaknesses in the academic libraries' marketing strategies and DL regulations or other aspects.

Table 6.41: DL Stakeholders' Awareness of Information Services

Statement		Instructors					Learners					Offered
		Not offered	Don't know	Offered	No Answer	Total	Not offered	Don't know	Offered	No Answer	Total	
Toll-free telephone	N	99	25	3	0	127	185	174	12	0	371	x
	%	78.0	19.7	2.4	0	100	49.9	46.9	3.2	0	100.0	
E-mail	N	62	42	20	3	127	94	239	38	0	371	√
	%	48.8	33.1	15.7	2.4	100	25.3	64.4	10.2	0	100.0	
Access to other Saudi academic libraries and use of their information services	N	38	86	3	0	127	134	218	16	3	371	√
	%	29.9	67.7	2.4	0	100	36.1	58.8	4.3	0.8	100.0	
Online access to information resources in the AL	N	48	45	31	3	127	134	162	70	5	371	√
	%	37.8	35.4	24.4	2.4	100	36.1	43.7	18.9	1.3	100.0	
24/7 call centre	N	76	47	1	3	127	130	190	47	4	371	x
	%	59.8	37.0	0.8	2.4	100	35.0	51.2	12.7	1.1	100.0	
Information services unit to support DL programmes	N	72	49	5	1	127	144	175	42	10	371	x
	%	56.7	38.6	3.9	0.8	100	38.8	47.2	11.3	2.7	100.0	
Digitised/full text Arabic and special collection to be used remotely	N	48	50	28	1	127	105	197	58	11	371	x
	%	37.8	39.4	22.0	0.8	100	28.3	53.1	15.6	3.0	100.0	
Study skills (effective reading, note taking, report writing, essay writing, research methods…etc)	N	71	52	3	1	127	151	170	49	1	371	x
	%	55.9	40.9	2.4	0.8	100	40.7	45.8	13.2	0.3	100.0	
Information literacy programmes offline/online (effective use of information resources/tutorials on using OPAC, online databases, e-resources etc.)	N	59	43	20	5	127	117	189	62	3	371	√
	%	46.5	33.9	15.7	3.9	100	31.5	50.9	16.7	0.8	100.0	
Current awareness (alerting services)	N	66	50	2	9	127	150	163	55	3	371	√
	%	52.0	39.4	1.6	7.1	100	40.4	43.9	14.8	0.8	100.0	
Virtual reference desk	N	64	49	8	6	127	122	184	61	4	371	x
	%	50.4	38.6	6.3	4.7	100	32.9	49.6	16.4	1.1	100.0	
Photocopying materials	N	26	26	69	6	127	54	138	177	2	371	√
	%	20.5	20.5	54.3	4.7	100	14.6	37.2	47.7	0.5	100.0	

Document delivery of journals, articles and other documents	N	35	37	48	7	127	84	142	134	11	371	√
	%	27.6	29.1	37.8	5.5	100	22.6	38.3	36.1	3.0	100.0	
Interlibrary loan with other academic libraries	N	21	57	38	11	127	77	169	112	13	371	√
	%	16.5	44.9	29.9	8.7	100	20.8	45.6	30.2	3.5	100.0	
Interactive AL web-page for searching, requesting materials, renewing materials, accessing full text databases (digital library) etc.	N	51	43	27	6	127	105	232	31	3	371	√
	%	40.0	33.9	21.3	4.7	100	28.3	62.5	8.4	0.8	100.0	
IRC (Internet Relay Chat) with librarians	N	85	36	1	5	127	129	216	21	5	371	x
	%	66.9	28.3	0.8	3.9	100	34.8	58.2	5.7	1.3	100.0	
Thinking skills tutorials	N	80	41	4	2	127	118	198	46	9	371	x
	%	63.0	32.3	3.1	1.6	100	31.8	53.4	12.4	2.4	100.0	
Access to course materials (lectures, exam papers, notes…etc.)	N	64	48	8	7	127	151	164	50	6	371	x
	%	50.4	37.8	6.3	5.5	100	40.7	44.2	13.5	1.6	100.0	
English and other language support (search, translate…etc.)	N	68	47	8	4	127	154	166	46	5	371	x
	%	53.5	37.0	6.3	3.1	100	41.5	44.7	12.4	1.3	100.0	
Direct access to the library system from home	N	73	40	9	5	127	171	174	22	4	371	√
	%	57.5	31.5	7.1	3.9	100	46.1	46.9	5.9	1.1	100.0	
Brochures about the library services	N	76	39	8	4	127	146	159	50	16	371	√
	%	59.8	30.7	6.3	3.1	100	39.4	42.9	13.5	4.3	100.0	

6.5.6.1 Distance Instructors' Awareness of the Information Services provided by the Academic Library

In this section, distance instructors' answers were analysed, providing insight into some key issues regarding the information services that are available for them to use to support their teaching by distance. General analysis showed that the most basic information services and support that should be available in academic libraries, especially those which serve a community that includes DL stakeholders, was lacking or at least was not known of by DL instructors. This is illustrated in Table 6.41. In general, the only information services that were ranked as readily available in the academic libraries (as shown in Table 6.41) are as follows:

1. Photocopying was shown as the most commonly available information service offered by academic libraries. 54.3% (69), of instructors and 47.7% (177), of learners agreed that this service is currently offered.

2. The second information service generally offered by academic libraries, as indicated by distance instructors and learners, was the document delivery service for journal articles and other documents. 37.8% (48), of instructors and 36.1% (134), of learners believed that this services is currently offered by academic libraries included in this study.

3. The third most commonly offered service in the academic libraries was interlibrary loan. 29.9% (38), of instructors and 30.2% (112), of learners closely agreed that this services is offered.

Other information services, scored less well and showed that some services, other than those mentioned above, are not generally available in the academic libraries , or are available but with limited access for certain users; it may also be that DL instructors know nothing about them. This problem again could be related to weaknesses in the marketing schemes of academic libraries, as mentioned above, as this is seen by instructors as a factor in hindering them from using these libraries. These results also demonstrate the weakness of academic libraries in serving their current users, including DL programme stakeholders. In conclusion, it should be noted that many respondents' answers were largely neutral, which may be related to a number of factors as explained previously in 6.5.5.1.

6.5.6.2 Distance Learners' Awareness

Combining results from this question, together with data acquired by the interviews, built a clearer picture of the current situation of the academic libraries included in this study. An analysis of the results, illustrated in Table 6.41, showed that the information service that was most frequently on offer was photocopying. In contrast, the information service mentioned least by distance learners was the availability of a toll-free telephone with a percentage of only 3.2% (12). Considering other information services mentioned in Table 6.41, it seems clear that many of these services were seen by respondents as services that were not offered, or were hardly recognised by them, or were not even considered by the academic libraries included in this study, although some of these services might be very useful to distance stakeholders. These services included e-mail, permission to use other academic libraries, remote access to full-text databases, information services 24/7, information service units designed for DL stakeholders, digitised Arabic collections that could be used remotely, study skills instruction, and information literacy programmes. It might also be noticed from this result that many respondents knew nothing about the information services offered by their academic libraries. This was perhaps because: DL stakeholders were ignorant of their right to use the AL and other resources; the lack of co-operation between DL deanships and academic libraries; the lack of marketing strategies in academic libraries; the lack of policies both in AL and DL deanships; and the continuous dependency of DL on using textbooks. However, as mentioned in the interview chapter, no special information services support has been designed or planned to support DL stakeholders. It was also noticed in the interview analysis that

distance learners were hardly recognised by their academic libraries, even though they have the same right as any other users to use these libraries but with extra conditions.

Summary

For both distance instructors and learners, the study's results showed that many DL stakeholders have little or no information about some of the information services available in their academic libraries as many of them ticked the answer "Don't know" while others mentioned that some information services are available while in reality they are not. This conclusion could be for the following reasons:

1. The absence of academic libraries in the life of DL stakeholders;
2. The lack of marketing strategies directed at DL stakeholders;
3. DL stakeholders have no need to use and visit the academic libraries;
4. A lack of cooperation between DL programme deanships and academic libraries;
5. The lack of or limited information services available for DL stakeholders to use;
6. The continuing dependence on textbooks as the primary resource for teaching and learning by distance;
7. The lack of official accreditation from both public and private organisations toward the DL programmes and their graduates;
8. The lack of or weakness of policies and standards for running academic libraries and DL.

6.5.7 Satisfaction with the Kind of Training Methods Available

Information literacy programmes in academic libraries, as mentioned in 6.4.1.5 and 6.5.5.1, are seen as an important way of helping users to benefit from the academic libraries and get the most out of the information services and resources available in them (Owusu-Ansah 2004; Dewald *et al*. 2000).

Table 6.42: Training Methods According to Instructors

Printed manuals			
Answer	**N**	**%**	***Rank**
Strongly dissatisfied	9	7.1	
Dissatisfied	13	10.2	
Neutral	39	30.7	1
Satisfied	16	12.6	(17.3%)
Strongly satisfied	6	4.7	
No Answer	44	34.6	
Total	127	100.0	
Web-based training course/tour			
Answer	**N**	**%**	
Strongly dissatisfied	5	3.9	
Dissatisfied	8	6.3	
Neutral	34	26.8	2
Satisfied	12	9.4	(14.1%)
Strongly satisfied	6	4.7	
No Answer	62	48.8	
Total	127	100.0	
One to one training			
Answer	**N**	**%**	
Strongly dissatisfied	9	7.1	
Dissatisfied	10	7.9	
Neutral	32	25.2	3
Satisfied	8	6.3	(11.8%)
Strongly satisfied	7	5.5	
No Answer	61	48.0	
Total	127	100.0	
Introduction about the AL at the beginning of each semester			
Answer	**N**	**%**	
Strongly dissatisfied	7	5.5	
Dissatisfied	15	11.8	
Neutral	37	29.1	4
Satisfied	13	10.2	(11%)
Strongly satisfied	1	0.8	
No Answer	54	42.5	
Total	127	100.0	
Audio/visual instructions			
Answer	**N**	**%**	
Strongly dissatisfied	13	10.2	
Dissatisfied	8	6.3	
Neutral	37	29.1	5
Satisfied	12	9.4	(10.2%)
Strongly satisfied	1	0.8	
No Answer	56	44.1	
Total	127	100.0	
Small group (classes/workshops) run by the AL			
Answer	**N**	**%**	
Strongly dissatisfied	14	11.0	
Dissatisfied	5	3.9	
Neutral	20	15.7	6
Satisfied	6	4.7	(8.6%)
Strongly satisfied	5	3.9	
No Answer	77	60.6	
Total	127	100.0	

❋ Ranking is based on the overall percentage of satisfaction or strongly satisfaction regarding training methods.

Table 6.43: Training Methods According to Learners

One to one training			
Answer	N	%	*Rank
Strongly dissatisfied	40	10.8	1 (28.6%)
Dissatisfied	31	8.4	
Neutral	55	14.8	
Satisfied	77	20.8	
Strongly satisfied	29	7.8	
No Answer	139	37.5	
Total	371	100.0	
Printed manuals			
Answer	N	%	
Strongly dissatisfied	44	11.9	2 (28%)
Dissatisfied	31	8.4	
Neutral	63	17.0	
Satisfied	82	22.1	
Strongly satisfied	22	5.9	
No Answer	129	34.8	
Total	371	100.0	
Web-based training course/tour			
Answer	N	%	
Strongly dissatisfied	45	12.1	3 (27.5%)
Dissatisfied	25	6.7	
Neutral	52	14.0	
Satisfied	83	22.4	
Strongly satisfied	19	5.1	
No Answer	147	39.6	
Total	371	100.0	
Introduction about the AL at the beginning of each semester			
Answer	N	%	
Strongly dissatisfied	50	13.5	4 (27.2%)
Dissatisfied	28	7.5	
Neutral	54	14.6	
Satisfied	76	20.5	
Strongly satisfied	25	6.7	
No Answer	138	37.2	
Total	371	100.0	
Small group (classes/workshops) run by the AL			
Answer	N	%	
Strongly dissatisfied	32	8.6	4 (27.2%)
Dissatisfied	31	8.4	
Neutral	62	16.7	
Satisfied	85	22.9	
Strongly satisfied	16	4.3	
No Answer	145	39.1	
Total	371	100.0	
Audio/visual instructions			
Answer	N	%	
Strongly dissatisfied	33	8.9	5 (24%)
Dissatisfied	45	12.1	
Neutral	72	19.4	
Satisfied	76	20.5	
Strongly satisfied	13	3.5	
No Answer	132	35.6	
Total	371	100.0	

✹ Ranking is based on the overall percentage of satisfaction or strongly satisfaction regarding training methods.

The academic libraries included in this study offer training programmes to users in using their services, as mentioned in the interview chapter. These training programmes include a library tour, face-to-face guide, audio-visual presentation, database reviews, brochures and more, as indicated in Table 6.42 and Table 6.43. Thus, DL stakeholders, including distance instructors, because of their previous experience in using the libraries and sometimes their enrolment on some training programmes offered by their academic libraries, were able to provide useful information about the best training programmes they received from their academic libraries.

First of all, it is noticeable that most of the instructors did not offer an opinion regarding the training programmes offered by their academic libraries as most of them ticked the box marked "Neutral". This perhaps indicates that some may not have attended such training programmes or may not know about them if they are available. However, the results indicated weaknesses in these training programmes as most of the answers indicated that respondents were dissatisfied or neutral. This raises a number of questions about the current information literacy programmes offered by academic libraries, as well as their effectiveness.

Overall, the results obtained from distance instructors revealed that academic libraries are currently not making much of an effort to train users to use the academic libraries; neither are they attracting users to join existing training programmes. Moreover, it should be noticed that the training methods that were ranked as the most effective were delivered through printed manuals with 17.3% (22), AL websites with web-based information, one to one training and through a tour and tutorials. For instance, 14.1% (18), satisfied or strongly satisfied that AL website method was one of the most effective. For example, the KAU academic library provides useful information in its website about the library's policies and rules, and its services. This result indicates the importance of using AL websites as a way of training and as an informative tool that users can consult to learn about the services and resources available in their academic libraries and the best way to acquire information.

In addition, distance learners could also have a role in deciding on, assessing and evaluating the kinds of training methods used in academic libraries. For instance, some training methods could be more relevant than others for those who study away from campus. An analysis of the results obtained from distance learners shows that many of respondents 28.6% (106), believed that face-to-face training is the most satisfactory method; this method is usually employed at the beginning of each programme or whenever a need arises. Such training, as discovered qualitatively, is only run once at the start of each semester and was found to be attracting only

few users while excluding many off-campus learners. Hence, this method seems to be impractical for distance learners as many of them live away from campus.

The second most satisfied or strongly satisfied method, as mentioned by 28% (104), of distance learners, is using printed manuals. This method would be more useful if manuals were always updated and sent to distance learners annually, as suggested by some students in the interview chapter. Using a web-based training course/tour was ranked third with a percentage of 27.5% (102). Hence, basic information about academic libraries included in their websites, such as services, contact details, databases titles, policies, location and departments, could be the reason behind this choice; this is also in line with distance learners' current satisfaction with web-based training. The fourth most satisfied and popular methods for training distance learners in using academic libraries is by offering introduction about the AL at the beginning of each semester and running small classes or workshops, as mentioned by 27.2% (101), of respondents. This result should encourage academic libraries to offer more scheduled tours and workshops during the year that can satisfy the needs of many distance learners. However, these last two methods was found to be less attractive for many users as it usually came at a time when most users were busy with their registration combined with other obligations related to family and work. Finally, using audio/visual instruction to satisfy distance learners need to know how to use the AL was seen as the least attractive method since only 24% (89), respondents mentioned this.

In general, the results obtained from DL stakeholders emphasise the importance of selecting and applying the most appropriate information literacy methods that can satisfy the needs of DL stakeholders in terms of using information resources and services available in their academic libraries.

Summary:

Overall results offered above show that the best methods that should be used to train DL stakeholders are ranked as follows:

1. Printed manuals.
2. One-to-one training;
3. Web-based training courses/tours;

These methods should be comprehensively implemented with the utmost rigour first to help the academic libraries to train users in acquiring information that can help satisfy their needs and justify the money that has been spent on acquiring all the necessary information resources.

Second, it should help DL stakeholders to support their teaching and learning with all the appropriate information resources and services being made available for them through their academic libraries.

6.6 Part Four: The Role of the Academic Library in Supporting DL

6.6.1 Attitudes towards the Role of the Academic Library in Saudi DL

Several statements were designed to explore the opinions of DL stakeholders about the future role of academic libraries in supporting DL in Saudi Higher Education. Overall results indicated that the general attitude towards the future role of academic libraries in supporting DL in Saudi HE was positive.

Table 6.44: Instructors' Attitudes toward the Role of the AL in Saudi DL

It should improve its ICT to meet DL stakeholders' needs.			
Answers	**N**	**%**	***Rank**
Strongly disagree	3	2.4	
Disagree	3	2.4	
Undecided	10	7.9	**1**
Agree	43	33.9	**(85.1%)**
Strongly agree	65	51.2	
No Answer	3	2.4	
Total	127	100.0	
It should engage in developing DL programmes and provide IS support.			
Answers	**N**	**%**	
Strongly disagree	3	2.4	
Disagree	1	0.8	
Undecided	15	11.8	**2**
Agree	50	39.4	**(81.9%)**
Strongly agree	54	42.5	
No Answer	4	3.1	
Total	127	100.0	
It should provide information literacy programmes.			
Answers	**N**	**%**	
Strongly disagree	1	0.8	
Disagree	5	3.9	
Undecided	13	10.2	**3**
Agree	60	47.2	**(81.8%)**
Strongly agree	44	34.6	
No Answer	4	3.1	
Total	127	100.0	
It should extend services outside its walls to serve all DL students.			
Answers	**N**	**%**	
Strongly disagree	2	1.6	
Disagree	1	0.8	
Undecided	14	11.0	**4**
Agree	58	45.7	**(80.3%)**
Strongly agree	44	34.6	
No Answer	8	6.3	
Total	127	100.0	
It should play an important role in supporting students' achievement.			
Answers	**N**	**%**	
Strongly disagree	1	0.8	
Disagree	3	2.4	
Undecided	16	12.6	**4**
Agree	55	43.3	**(80.3%)**
Strongly agree	47	37.0	
No Answer	5	3.9	
Total	127	100.0	
It should be central to the DL experience.			
Answers	**N**	**%**	
Strongly disagree	1	0.8	
Disagree	4	3.1	
Undecided	17	13.4	**5**
Agree	60	47.2	**(81.1%)**
Strongly agree	43	33.9	
No Answer	2	1.6	
Total	127	100.0	
It should provide information service support to DL.			
Answers	**N**	**%**	
Strongly disagree	4	3.1	
Disagree	0	0	
Undecided	18	14.2	**6**
Agree	48	37.8	**(79.5%)**
Strongly agree	53	41.7	
No Answer	4	3.1	
Total	127	100.0	
It should be an active member of the teaching group.			
Answers	**N**	**%**	
Strongly disagree	1	0.8	
Disagree	1	0.8	
Undecided	22	17.3	**7**
Agree	49	38.6	**(75.6%)**
Strongly agree	47	37.0	
No Answer	7	5.5	
Total	127	100.0	

❋ Ranking is based on the overall percentage of instructors' agreement regarding their attitudes toward the role of AL in Saudi DL.

Table 6.45: Learners' Attitudes toward the Role of the AL in Saudi DL

It should extend services outside its walls to serve all DL students.			
Answer	**N**	**%**	***Rank**
Strongly disagree	9	2.4	
Disagree	10	2.7	
Undecided	45	12.1	
Agree	137	36.9	1
Strongly agree	164	44.2	(81.1%)
No Answer	6	1.6	
Total	**371**	**100.0**	
It should provide information literacy programmes.			
Answers	**N**	**%**	
Strongly disagree	12	3.2	
Disagree	11	3.0	
Undecided	46	12.4	
Agree	147	39.6	2
Strongly agree	153	41.2	(80.8%)
No Answer	2	0.5	
Total	**371**	**100.0**	
It should engage in developing DL programmes and provide IS support.			
Answers	**N**	**%**	
Strongly disagree	11	3.0	
Disagree	15	4.0	
Undecided	49	13.2	
Agree	141	38.0	3
Strongly agree	153	41.2	(79.2%)
No Answer	2	0.5	
Total	**371**	**100.0**	
It should improve its ICT to meet DL stakeholders' needs.			
Answers	**N**	**%**	
Strongly disagree	8	2.2	
Disagree	15	4.0	
Undecided	52	14.0	
Agree	126	34.0	4
Strongly agree	167	45.0	(79%)
No Answer	3	0.8	
Total	**371**	**100.0**	
It should play an important role in supporting students' achievement.			
Answers	**N**	**%**	
Strongly disagree	6	1.6	
Disagree	12	3.2	
Undecided	56	15.1	
Agree	149	40.2	4
Strongly agree	144	38.8	(79%)
No Answer	4	1.1	
Total	**371**	**100.0**	
It should provide information service support to DL.			
Answers	**N**	**%**	
Strongly disagree	5	1.3	
Disagree	16	4.3	
Undecided	52	14.0	
Agree	160	43.1	5
Strongly agree	133	35.8	(78.9%)
No Answer	5	1.3	
Total	**371**	**100.0**	
It should be an active member of the teaching group.			
Answers	**N**	**%**	
Strongly disagree	10	2.7	
Disagree	17	4.6	
Undecided	58	15.6	
Agree	201	54.2	6
Strongly agree	83	22.4	(76.6%)
No Answer	2	0.5	
Total	**371**	**100.0**	
It should be central to the DL experience.			
Answers	**N**	**%**	
Strongly disagree	34	9.2	
Disagree	20	5.4	
Undecided	56	15.1	
Agree	180	48.5	7
Strongly agree	81	21.8	(70.3%)
No Answer	0	0	
Total	**371**	**100.0**	

❋ Ranking is based on the overall percentage of learners' agreement regarding their attitudes toward the role of AL in Saudi DL.

The results, as illustrated in Tables 6.44 and 6.45, show an overall agreement among DL stakeholders regarding the importance of the role of the academic library in supporting DL in the future but also of the need for academic libraries to improve their performance. For instance, there was general agreement, especially among instructors 85.1% (108), that academic libraries should improve their ICT infrastructure to meet the needs of DL stakeholders. This result shows the strong desire of DL instructors to improve the technologies in their academic libraries which would allow them to have easy access to all information resources and services that are available electronically.

The second most important statement that attracted strong agreement (81.9%) was that the AL should engage in and be a part of developing DL programmes as well as providing the information services support to DL stakeholders. This result also demonstrated the importance of building strong cooperation between the DL deanships and the academic libraries in universities to provide a suitable environment in which DL stakeholders can both teach and learn; this is lacking at the moment, as shown in the interview analysis chapter and in 6.5.6.2**.**

The third most important role for academic libraries in supporting DL programmes in the country indicates that ALs should provide information literacy programmes to support their users including DL stakeholders. Hence, 81.8% (104), of the instructors agreed on the important of this role in supporting current and future DL programmes.

The fourth most positive attitude 80.3% (102), was that distance instructors believed that academic libraries should extend their services outside their walls to serve all DL learners who are physically distant from campus and should play an important role in supporting students' achievement. This illustrates the desire of DL instructors to obtain easier access for them as well as for their distance students to get more information without having physically to visit the library. This cannot be achieved without improving the ICT infrastructures, as mentioned above. Nevertheless, this also shows that distance instructors are willing to use the technologies to gain access to more information resources.

In addition, understanding distance learners' opinions and attitudes about academic libraries is also very important in recognising and making decisions about their right to be served and supported by academic libraries. A number of statements similar to these asserted by instructors were also formulated from a range of guidelines to describe the future role that academic libraries should play in supporting DL learners. Results show slight differences

between instructors and learners regarding their attitudes. In this case, some statements gained strong and positive responses from instructors but less so from learners, as illustrated and ranked in Tables 6.44 and 6.45.

For instance, the statement that gained the most agreement from distance learners, with a high percentage of 81.1% (301), was that academic libraries should extend their information services outside their walls to serve all DL students. The role that was ranked second, with a percentage of 80.8%, (300), was that academic libraries should provide information literacy programmes that can satisfy users' needs. This result yet again could suggest that academic libraries do not provide suitable training programmes. In addition, 79.2% (294), of the learners agreed or strongly agreed that AL should engage in developing DL programmes and provide ISs support for them. In the fourth ranking, 79% (293), of the DL learners agreed or strongly agreed that AL should improve its ICT infrastructure to meet DL stakeholders' needs and at the same time it should play an important role in supporting students' achievement. Furthermore, 78.9% of respondents agreed or strongly agreed that academic libraries should provide information service support to distance learners. This could be achieved partly by facilitating remote access to information services and resources. Other results also met with strong agreement from respondents and these are seen as very positive since the majority of respondents valued the future role of academic libraries in supporting DL stakeholders. In short, the results overall showed that DL stakeholders (instructors and learners) had a positive attitude regarding the future role that academic libraries should be playing in supporting DL and their stakeholders even though there were some differences between instructors and learners about some of the most important statements, as illustrated and ranked in Tables 6.44 and 6.45.

6.6.2 Opinions Regarding the Relationship between DL and the Academic Library and its Services in Supporting DL Stakeholders

As stated by findings obtained through the interviews, co-operation and relationships between DL and academic libraries must be sustained in order to maintain the quality of DL education. For instance, this relationship was criticised by many interviewees as lacking or ignored by universities, including DL deanships and academic libraries. This relationship, if strong, would be capable of allowing DL programmes to take into account the importance of academic libraries in supporting and helping their stakeholders to achieve their goals. Academic libraries would thus be more involved in supporting DL stakeholders, including learners, with all information services remotely. For this reason, only DL instructors were

asked to evaluate certain statements that described the future of academic libraries in order to bridge the current gap between DL programmes and academic libraries (as discovered by this study) while defining the role of the AL in the future. In addition, these statements aimed to clarify and define the relationship that should exist between DL and academic libraries according to the information services that libraries should offer to support this kind of education.

Table 6.46: Relationship between DL and AL in Rank order

Institutes providing DL in SA have the responsibility to support learning, teaching and searching by supporting it with information services.			
Answers	N	%	*Rank
Strongly disagree	2	1.6	
Disagree	1	0.8	
Undecided	10	7.9	
Agree	38	29.9	1
Strongly agree	70	55.1	(85%)
No Answer	6	4.7	
Total	127	100.0	
Information services for DL programmes have to be planned and separately funded in order to deliver equivalent library services to maintain the quality of teaching, learning and searching.			
Answers	N	%	
Strongly disagree	0	0.0	
Disagree	4	3.1	
Undecided	11	8.7	2
Agree	72	56.7	(83.5%)
Strongly agree	34	26.8	
No Answer	6	4.7	
Total	127	100.0	
Academic libraries should be fully supported by universities to deliver the highest IS support to DL programmes.			
Answers	N	%	
Strongly disagree	2	1.6	
Disagree	6	4.7	
Undecided	7	5.5	3
Agree	46	36.2	(80.3%)
Strongly agree	56	44.1	
No Answer	10	7.9	
Total	127	100.0	
Access to adequate library services and resources is essential for DL stakeholders and should be ensured.			
Answers	N	%	
Strongly disagree	3	2.4	
Disagree	7	5.5	
Undecided	13	10.2	3
Agree	46	36.2	(80.3)
Strongly agree	56	44.1	
No Answer	2	1.6	
Total	127	100.0	
Information literacy in academic libraries is a primary service in DL.			
Answers	N	%	
Strongly disagree	0	0.0	
Disagree	5	3.9	
Undecided	17	13.4	4
Agree	63	49.6	(78.7%)
Strongly agree	37	29.1	
No Answer	5	3.9	
Total	127	100.0	
Academic libraries have to be part of the planning, developing, evaluating and changing of DL programmes.			
Answers	N	%	
Strongly disagree	1	0.8	
Disagree	5	3.9	
Undecided	14	11.0	5
Agree	49	38.6	(78%)
Strongly agree	50	39.4	
No Answer	8	6.3	
Total	127	100.0	
Information service support provided by the AL to DL has to meet the national, international and regional accreditation standards and professional association standards and guidelines.			

Answers	N	%	
Strongly disagree	1	0.8	
Disagree	4	3.1	
Undecided	14	11.0	6
Agree	63	49.6	(77.2%)
Strongly agree	35	27.6	
No Answer	10	7.9	
Total	127	100.0	

Academic libraries should have the primary responsibility for providing useful resources that can meet DL users' needs.

Answers	N	%	
Strongly disagree	5	3.9	
Disagree	3	2.4	
Undecided	12	9.4	6
Agree	55	43.3	(77.2%)
Strongly agree	43	33.9	
No Answer	9	7.1	
Total	127	100.0	

License agreements for accessing electronic information resources should include the right of all DL stakeholders to use them.

Answers	N	%	
Strongly disagree	2	1.6	
Disagree	3	2.4	
Undecided	26	20.5	7
Agree	51	40.2	(71.7%)
Strongly agree	40	31.5	
No Answer	5	3.9	
Total	127	100.0	

Traditional AL information service support designed for on-campus users cannot meet DL users' needs.

Answers	N	%	
Strongly disagree	3	2.4	
Disagree	9	7.1	
Undecided	33	26.0	8
Agree	41	32.3	(59.9%)
Strongly agree	35	27.6	
No Answer	6	4.7	
Total	127	100.0	

Off campus users need personalised services more than on campus users.

Answers	N	%	
Strongly disagree	7	5.5	
Disagree	10	7.9	
Undecided	46	36.2	9
Agree	38	29.9	(45.6%)
Strongly agree	20	15.7	
No Answer	6	4.7	
Total	127	100.0	

✿ Ranking is based on the overall percentage of instructors' agreement regarding their attitudes toward the future relationship between DL and AL.

First of all, as noted in Table 6.46, the statement that gained the greatest level of agreement, with a percentage of 85% (108), was that: "*Institutes providing DL in SA have the responsibility to support learning, teaching and searching by supporting them with information services*". Instructors, therefore, asserted that the responsibility for supporting DL lies, first and foremost, with the institutes themselves, the DL deanship, and their academic libraries as they are part of the institutes. This would involve building strong co-operation between the DL and the AL deanships in each university to ensure that the quality of education offered by instructors for distance learners is high. This co-operation cannot be achieved unless universities' administrations insist on such co-operation.

The statement that received the next highest level of support 83.5% (106), was that: "*Information services for DL learning programmes have to be planned and separately funded*

in order to deliver equivalent library services and maintain the quality of teaching, learning and searching". This statement bears a relation to the previous one, which was that co-operation and planning should be maintained. In this statement, much emphasis is given to the importance of DL and the importance of offering information services in parallel with the DL system.

The third ranked statement, with a percentage 80.3% (102), was that: "*The academic library should be fully supported by the university to deliver the highest IS support to DL programmes*". In this case, respondents are emphasising that the administrations of institutes that offer DL should not only have ethical responsibility for providing the necessary information services, but they should also support their academic libraries in providing quality information services for those who are part of DL. Further results also showed that respondents ranked the services that should be offered to DL by the AL as the third most important with a percentage of 80.3% (102). This statement asserts: "*Access to adequate library services and resources is essential for distance stakeholders and should be ensured*". So, building a strong relationship between the AL and DL is not sufficient in itself although it must be considered an essential part of DL programmes; resources must also be provided.

In addition, ensuring that the use of the AL is both fair and easy is essential for all users, including DL stakeholders. The following statement that ranked fourth and gained strong agreement from respondents with a percentage of 78.7% (100),: "*Information literacy programmes in academic libraries are a primary service in DL.*" This supports what was mentioned earlier, and especially in 6.4.1.5, concerning the importance of training users on how to use the academic libraries so that they can benefit from their information resources and services.

In addition, to achieve the previously mentioned objectives and to make DL part of the AL's interests, 78% (99), of participants ranked the following statement as the fifth most important in building a strong relationship between academic libraries and DL: "*Academic libraries have to be part of the planning, developing, evaluating and changing of DL programmes*". This result indicates again the importance of building the necessary co-operation between the AL and DL deanships to ensure that DL stakeholders have the right to use all the supports that are available in their universities, including AL services. This cannot be achieved unless academic libraries are invited to be and are actually recognised as a part of the DL system.

To emphasise the role of the AL in relation to DL programmes, 77.2% (98), of participants ranked the statement below as the sixth most important: *"Information service support provided by the AL to DL has to meet national, international and regional accreditation standards and professional association standards and guidelines."* This result is encouraging for those who are involved in planning and designing future information services as it implies that supporting DL stakeholders should follow the existing standards and guidelines; this could be very helpful in designing complete and useful information services. These standards and guidelines could be adjusted to fit to the nature of teaching and learning methods in Saudi DL programmes and to match the resources (equipment, budgets and staff) available in each university.

The following statement was also ranked highly and placed the six out of eleven as 77.2% (98), of the respondents agreed that: *"Academic libraries should have the primary responsibility for providing useful resources that can meet DL users' needs."* In fact, the core of any library is its resources, combined with allowing easy access to these resources, not only for on campus users, but also for those who study remotely. So, making strong efforts to acquire all information resources that can satisfy users' needs, including DL stakeholders, should be a priority for any AL, not forgetting to help all users to get easy access to them.

"License agreements for accessing electronic information resources should include the right of all DL stakeholders to use them". This statement ranked the 7th which should be considered by AL and DL deanships during the process of subscribing to online databases. The 8th ranked statement that should be considered in developing information services support for distance learning programmes was that: *"Traditional AL information service support designed for on-campus users cannot meet DL users' needs".* This indicates clearly the importance of designing special information services for special users, such as distance learners, who cannot be served by the current, traditional services. The least ranked statement was that: *Off campus users need personalised services more than on campus users".* Although this statement was ranked last, it stills offer the suggestion that DL stakeholders need more attention and more services compared to those on campus; this, in turn, indicates that the current services offered by the AL cannot meet their needs.

6.7 Attitudes toward Alternative Models/Solutions in Delivering Information Services to Support DL in Saudi Higher Education

As shown in the literature review, several models/solutions for supporting DL stakeholders with information resources and services have been developed. Several information services models/solutions were presented in the questionnaire to be tested by DL instructors and learners to see which they considered to be the most reliable and could be applied in the Saudi context. In general, DL participants showed their eagerness to have information services support that could fulfil their needs for teaching, learning and research. Hence, according to DL instructors, there are few differences in the degree of preference between most of the models presented here although these small differences could be used as a tool to rank these models in an order for implementation. In fact, the fact that these differences are small could indicate that DL instructors are struggling to find useful information services and support related to the provision of information. Hence, and according to their results, information services support for DL programmes could be implemented by any means, irrespective of the information services support's location or its ownership.

6.7.1 Distance Instructors' Attitudes

Table 6.47: Alternative Models/Solutions for Delivering Information Services to Support DL as preferred by Instructors

Answers	N	%	*Rank
The National Centre for e-learning and DL in the MHE should have the responsibility to support distance learners with all the information services they need by creating a centralised IS centre.			
Strongly disagree	1	0.8	1 (88.2%)
Disagree	2	1.6	
Undecided	10	7.9	
Agree	41	32.3	
Strongly agree	71	55.9	
No Answer	2	1.6	
Total	127	100.0	
The Deanship of DL in each university should create its own electronic library to support its stakeholders.			
Strongly disagree	3	2.4	2 (87.4%)
Disagree	2	1.6	
Undecided	9	7.1	
Agree	43	33.9	
Strongly agree	68	53.5	
No Answer	2	1.6	
Total	127	100.0	
A consortium among Saudi academic libraries should provide all information services needed by all DL programmes.			
Strongly disagree	4	3.1	3 (85.8%)
Disagree	1	0.8	
Undecided	10	7.9	
Agree	60	47.2	
Strongly agree	49	38.6	
No Answer	3	2.4	
Total	127	100.0	
AL should be able to extend its services for all of its users, including DL learners.			
Strongly disagree	7	5.5	4 (84.2%)
Disagree	1	0.8	
Undecided	9	7.1	
Agree	39	30.7	
Strongly agree	68	53.5	
No Answer	3	2.4	
Total	127	100.0	
AL should hire an external IS provider in order to fulfil DL learners' needs.			
Strongly disagree	5	3.9	5 (69.3%)
Disagree	9	7.1	
Undecided	18	14.2	
Agree	63	49.6	
Strongly agree	25	19.7	
No Answer	7	5.5	
Total	127	100.0	
The current services provided by the AL are satisfying DL learners' needs.			
Strongly disagree	31	24.4	6 (14.1%)
Disagree	47	37.0	
Undecided	25	19.7	
Agree	14	11.0	
Strongly agree	4	3.1	
No Answer	6	4.7	
Total	127	100.0	

❋ Ranking is based on the overall percentage of instructors' agreement regarding their preferred ISs models to support DL.

Even though academic libraries were seen by distance instructors, according to Section 6.4, as a key player in supporting DL stakeholders, their current condition, according to this study's results, cannot presently meet users' needs, including the needs of DL stakeholders. However,

and according to the results presented in Table 6.47, the model included in this study that received the greatest level of satisfaction from DL instructors 88.2% (112), was model Number 6. This model stated that: *The National Centre for e-learning and DL in the MHE should have the responsibility for supporting distance learners with all the information services they need by creating a centralised IS centre*. The strong agreement with this model could be a response to the current dissatisfaction felt towards the existing Saudi AL services; these currently do not sufficiently recognise and satisfy DL stakeholders in a reasonable manner or time.

The second alternative model that could be implemented to support DL stakeholders stated that: *The Deanship of DL in each university should create its own electronic library to support its stakeholders.* 87.4% (111), of respondents agreed or strongly agreed with this model. This alternative model also suggested that the DL instructors are still uncertain about the abilities and the existing role and condition of academic libraries to support them and their students with effective information services and resources.

Another model that also could be used to support DL programmes stakeholders with all information services and resources was ranked third by instructors with 85.8% (109). This was the model that suggested: "*Establishing a consortium among all the Saudi academic libraries*". This consortium could provide the information services needed by DL programmes with less effort and in less time.

The fourth alternative model, with a percentage of 84.2% (107), was that: "*The AL should be able to extend its services for all of its users, including DL learners, as part of its policy*." This alternative is shown, by this result, to be a moderate alternative among all the other models. This is the model that is generally applied internationally by many universities which offer DL programmes. However, this is currently not the situation in the Saudi context.

The fifth alternative model, which seemed to be less desirable to respondents with a percentage of 69.3% (88), was that: *Academic libraries should hire an external IS provider in order to fulfil DL stakeholders' needs*. This option was perhaps ranked as less desirable as it could be unreliable and costly.

Finally, the least preferred model compared to others included in this study was that: "*The current services provided by the academic libraries are already satisfying DL students'*

needs" with a percentage of 14.1% (18). This result reinforced previous results and the analysis of the interviews regarding the current and future condition of academic libraries in SA. The last model does not reflect the current situation of academic libraries where there is no defined information service that has been precisely designed to support DL stakeholders.

6.7.2 Distance Learners' Attitudes

The theoretical models for supporting DL programmes and their stakeholders with all the information resources and services they need were also outlined and tested with learners, as illustrated in Table 6.48.

Table 6.48: Alternative Models/Solutions for Delivering Information Services to Support DL as preferred by Learners

The National Centre for e-learning and DL in the MHE should have the responsibility to support distance learners with all the information services they need by creating a centralised IS centre.			
Answers	**N**	**%**	***Rank**
Strongly disagree	9	2.4	
Disagree	12	3.2	
Undecided	33	8.9	1
Agree	153	41.2	(85.4%)
Strongly agree	164	44.2	
No Answer	0	0	
Total	**371**	**100.0**	
The Deanship of DL in each university should create its own electronic library to support its stakeholders.			
Answers	**N**	**%**	
Strongly disagree	6	1.6	
Disagree	15	4.0	
Undecided	40	10.8	2
Agree	175	47.2	(83.6%)
Strongly agree	135	36.4	
No Answer	0	0	
Total	**371**	**100.0**	
AL should be able to extend its services for all of its users, including DL learners.			
Answers	**N**	**%**	
Strongly disagree	16	4.3	
Disagree	33	8.9	
Undecided	42	11.3	3
Agree	124	33.4	(75.4%)
Strongly agree	156	42.0	
No Answer	0	0	
Total	**371**	**100.0**	
A consortium among Saudi academic libraries should provide all information services needed by all DL programmes.			
Answers	**N**	**%**	
Strongly disagree	8	2.2	
Disagree	16	4.3	
Undecided	73	19.7	4
Agree	137	36.9	(72.7%)
Strongly agree	133	35.8	
No Answer	4	1.1	
Total	**371**	**100.0**	
AL should hire an external IS provider in order to fulfil DL learners' needs.			
Answers	**N**	**%**	
Strongly disagree	15	4.0	
Disagree	40	10.8	
Undecided	93	25.1	5
Agree	142	38.3	(59.9%)
Strongly agree	80	21.6	
No Answer	1	0.3	
Total	**371**	**100.0**	
The current services provided by the AL are satisfying DL learners' needs.			
Answers	**N**	**%**	
Strongly disagree	86	23.2	
Disagree	99	26.7	
Undecided	74	19.9	6
Agree	55	14.8	(29.4%)
Strongly agree	54	14.6	
No Answer	3	0.8	
Total	**371**	**100.0**	

✳ Ranking is based on the overall percentage of learners' agreement regarding their preferred ISs models to support DL.

These models were introduced here in order to obtain the necessary feedback from distance learners who are key players in deciding about these models' efficiency in supporting them with information services and resources. This analysis, in conjunction with the previous one, and as well as the other findings, could also be useful in exploring reliable alternatives to support DL stakeholders with information services in Saudi HE.

Thus, the analysis of the results obtained from distance learners shows that the model that gained the highest level of approval 85.4% (317), was the model based on the idea that the: "*The National Centre for e-learning and Distance Learning in the MHE should be responsible for supporting distance learners with all the information services they need*". This result is similar to the result obtained above from instructors. This would be achieved by creating a centralised IS centre to support DL in the Kingdom. This model could also benefit from the new project that has been carried out by the National Centre for DL and e-learning at the MHE where they have initiated a plan to build their own e-library that can support DL in the country.

The second ranked model that met with the approval of 83.6% (310), of the respondents was the creation of an e-library. In this model, the deanship of DL in each university would create its own electronic library to support its stakeholders instead of using academic libraries. The third model, which 75.4% (280), of participants agreed with, was that: "*AL should be able to extend its services for all of its users, including DL learners.*. This model involves academic libraries recognising the right of DL stakeholders to have services equal to those offered to other users.

The fourth alternative model that 72.7% (270), of the distance learners believed might be useful was the idea of *building a consortium*. This model involves establishing and building a powerful consortium among all Saudi academic libraries whose institutes offer DL. It should involve building a strong sense of coordination and co-operation, not only among the academic libraries themselves, but also between DL deanships and AL deanships. However, in the first instance, co-operation between the DL and the AL deanships in each university must exist before further co-operation is sought across the country. The fifth alternative model that was acceptable to only 59.9% (222), of the respondents was that: *Academic libraries should hire an external IS provider in order to fulfil DL learners' needs.*

Finally, the least attractive model, which attracted the approval of only 29.4% (109), of the respondents, was that: *The current services provided by the AL are satisfying DL learners' needs.* This result, could indicate that the information services provided currently by the academic libraries are useless and do not satisfy most of the needs of distance learners. Hence, it is clear that continuing to use the existing model where academic libraries have the responsibility to support their users, which should include DL stakeholders, is not presently satisfying their needs; thus, it can hardly be justified that this model should continue. Even though 29.4% of respondents agreed that the existing model and its current information services would be appropriate, this is not representative of the current picture of academic libraries discovered so far by this study. This result might be due to the respondents' lack of knowledge about the reality of academic libraries and conditions that might hinder them from serving their communities, including distance learners.

6.8 Respondents' Comments and Suggestions

Some open questions were designed as part of the study questionnaire. These were aimed to collect qualitative data from respondents about the current and future role of academic libraries in supporting DL in SA that could not be achieved by asking closed questions. Part of the questionnaires gave respondents the chance to express their feelings and opinions about the main topic of this study separately from closed questions. It was very important for the researcher to obtain answers to these questions side by side with data collected from the closed questions which were included in the questionnaires and interviews. This combination of data helps to support the investigation of the role of academic libraries in DL. However, the suggestions, recommendations, opinions and attitudes that were mentioned could also be very beneficial in evaluating the current condition of academic libraries while clarifying the future role of academic libraries in supporting DL stakeholders.

Furthermore, discovering these opinions and comments, and implementing them in terms of formulating the findings and conclusions of this study, could be very useful in supporting, not only universities, DL and academic libraries , but also other HE programmes. However, the role of the researcher was to report all the respondents' comments, suggestions and opinions in conjunction with the research's aims, objectives and questions. Hence, all the comments were gathered, translated from Arabic to English, revised and rewritten in an informative way for inclusion in this study. These comments were categorised according to their main themes and were obtained mainly from DL stakeholders. These are as illustrated in Tables 6.49 and 6.50 as follows:

Table 6.49: DL Instructors' Comments and Suggestions

Themes	Statements
Lake of time	The many tasks we have to do besides teaching are not helping us to concentrate on serving distance learners.
DL regulations	Current incentives given to DL instructors to teach in DL are not encouraging teachers to look at and suggest other information resources to be used by learners besides the textbooks or even to remind distance learners to use the AL.
	Broadcasting lectures live to all DL learners is essential.
	Distance learners and instructors depend heavily on using textbooks and handouts for their studies which needs to be changed soon.
	Current interaction between distance learners and AL is very weak because the evaluation of learning depends mainly on final exams and does not depend heavily on doing assignments or research papers.
	Accreditation of DL by the MHE and by the government is still weak in the country which can be seen as the reason for the lack of many support systems, such as AL services.
Library staff	Library staff should be increased.
	Improve librarians' behaviour and skills in dealing with users.
	Do we have qualified staff in the AL to engage in dealing with outsiders such as distance learners? I doubt it!
	Hire more librarians who are skilled in the English language and ICT.
ICT	Supplying instructors with laptops and a fast broadband link to the Internet in their offices and at home is essential to support distance learners.
	Universities should provide us with a free Internet connection at home in order to serve distance learners most of the time.
	Universities should concentrate on providing continuous professional training and workshops for all instructors in how to deal with ICT.
Libraries other than the AL	We heavily depend on our own private library, not the AL.
	Instead of using the AL, I buy books from bookstores and from the Internet which are more reliable and more quickly available.
	I usually use King Abdul-Aziz Public Library because it is close to my home and has all what I want, including online resources and the Internet.
Current conditions of the AL	There is no current support designed for DL stakeholders in the AL.
	Open the AL for more time.
	Make it easier to access books and other information resources physically or by remote.
	An important factor in using academic libraries is the AL's location and this must be considered.
	Interaction between DL stakeholders and academic libraries is weak and sometimes non-existent!
	Weak Arabic e-resources and contents.
	Current academic libraries' information services are still very traditional and limited for all users and these depend on your relations with librarians.
	The current AL is not providing me with the necessary information services and resources and how can they help others such as distance learners? (Many important Arabic previewed journals are not available.)
Suggested services	Academic libraries should concentrate on offering document delivery services to support DL stakeholders.
	Academic libraries should concentrate more on providing current awareness services.
	The AL should provide an online/e-service to update instructors about all the new information resources that can help in supporting DL.
	The AL should provide instruction/training in writing research papers.
	The AL must provide information literacy/training in finding information for all distance learners; this must be compulsory.
	Some public libraries are more useful than many academic libraries and they should be considered as part of the DL plan in the country.
	Academic libraries' information services should be similar to those available in western countries.
	Concentrate on electronic Arabic resources.
	The AL and universities must provide reliable Arabic translation services for databases in other languages as soon as possible to serve teachers and students.
	Centralised information services should be built by universities themselves (co-operation) or by the MHE to serve all DL stakeholders; this would be a reasonable solution at this time.
University's role	Universities should concentrate on building their own electronic libraries to support all DL stakeholders and should include Arabic resources as much as they can.
	There should be a compulsory module in using academic libraries and finding information for all students on traditional or DL programmes. This should be complemented by the university administration by improving academic libraries and supporting them with budgets, staff, in-house or external training, refurbishing academic libraries, building strong networks, creating new departments, and reforming/updating academic libraries' policies.
	Distance learners are enlightened in terms of reading and using libraries.
	Academic libraries are hiding from many users, including distance learners, and yet strong relations should be built between them and users by using all the available media to inform users about their existing services.
Future role of the AL	We are very suspicious of the current and future role of the academic libraries in supporting DL because they are still not serving their on-campus users as they should be.

Table 6.50: DL Learners' Comments and Suggestions

Themes	Statements
DL regulations	Provide students with ready-to-use materials and resources for each course.
	Start building an official interaction system between distance learners and their teachers, directly or indirectly.
	Some courses need to be explained in practical terms and universities should provide online websites to explain these courses.
	Communication between distance learners and their universities through the Internet must be ensured.
	It is an injustice to treat distance learners in terms of grading and marking equally with on-campus learners who usually have easy access to all information resources.
	Higher education, especially in DL, is heavily dependent on handout materials usually published before exams, so there is no need to use academic libraries.
	Provide distance learners with CD-ROMs, including learning materials, instead of making learners struggle to find information resources in libraries, book stores and the Internet.
	Information resources and other learning materials, such as textbooks, should be provided free of charge.
	We use only textbooks to study instead of using libraries.
	It is so late to be thinking about improving DL and I hope future students will be better off than us now regarding support.
	Provide training on studying by distance, including support that distance learners can get from their universities and including information services offered by the AL.
Suggested services	Provide easy access to the information resources available in the academic libraries.
	The AL should prepare students for exams by providing them with examples from old exams and training them to do these exams.
	Co-operation between academic libraries must be ensured in order to make all textbooks and other materials available in each library to be used by distance learners anywhere in the country.
	Using academic libraries must be free, including copying and borrowing books.
	Provide a virtual tour of academic libraries and their services on the Internet.
	DL should provide distance learners with a compulsory tour/training in using the AL.
	Improve libraries' websites by allowing distance learners to have easy access to the library system and databases from outside.
	Acquire all information resources and textbooks related to distance courses and allow distance learners to borrow them and to copy from them.
	Apply the idea of m-learning (at least text messages) by academic libraries via updating distance learners with all new services and resources.
	Translate some resources that are very important to our studies from English to Arabic.
	Two important services must be used by academic libraries to provide their information services to distance learners: e-mail and the Internet.
	Academic libraries should create a strong marketing strategy to attract distance learners to use them.
	Provide copying services for resources to distance learners who live far away from the campus.
Future role of the AL	Academic libraries must consider distance learners' circumstances and times which are most convenient for them.
	Academic libraries must establish an independent department dedicated to serve and sustain distance learners.
	Academic libraries must introduce themselves to DL stakeholders to inform them about their services.
	Academic libraries must reach all distance learners in the country by completely implementing the Internet and its features.
	Academic libraries should acquire the most recent information resources.
	Any services provided for distance learners by academic libraries must be offered through the Internet.
	Equity between off-campus learners and on-campus learners in using academic libraries must be ensured.
	Academic libraries must represent all courses offered in the university, including DL courses, and must offer distance learners freedom to use all the information resources available.
	Academic libraries must answer all users' questions received personally, by e-mail, or by telephone.
	Academic libraries should concentrate on providing information services through the Internet and by telephone.
	Providing clear and straightforward information and guidelines about the availability of the AL and its services manually and through the Internet for DL stakeholders must be ensured (marketing).
Current conditions of the AL	Academic libraries and their information services are invisible for distance learners.
	The distant location of academic libraries is a serious problem that dissuades distance learners from using them.
	Shortage of useful/well-known books related to my studies.
	There has been no single training in using academic libraries during my studies.
	I have visited the AL once and found it very miserable!
Library staff	Librarians in academic libraries must respond to users' requests sincerely and answer their questions in a reasonable time.
	Unqualified/impolite librarians answer/respond to my questions.
	Nobody in the library responds to our answers, our e-mails, calls and letters.
University's role	Co-operation between academic libraries and DL must exist to ensure the availability of information resources required by distance learners in the AL.
	It is very important to continue to strengthen the idea of reading among citizens from the primary school stage until university to ensure they do not fear to use academic libraries and other information resources in the future.
	Universities should build their e-libraries to support DL.
	Equity between distance learners and on campus students is the solution to improve the quality of DL.
	Equity between distance learners and others learners will help to reduce many obstacles facing distance learners, including easy access to materials in the AL.
Resources/libraries other than the AL	Using the Internet and participating in student forums are the main sources of information; these are replacing the role of the AL, especially for girls.
	We depend on other private libraries, our own libraries and public libraries instead of using academic libraries.
	Public libraries are commonly used by distance learners more than academic libraries due to their easy locations.
ICT	Improve Internet speeds and access anywhere in the country and reduce the price of the Internet in the country, especially for students.

6.9 Summary

In conclusion, the aim of this chapter was to present the main results which emerged from analyses of the data collected from the survey questionnaires distributed to DL instructors and learners, as well as qualitative data collected through open questions. Male and female DL instructors and learners from two universities (IMBSIU and KAU) were contacted; their responses were interpreted and presented statistically as well as qualitatively. The questionnaires were divided into five sections; each section involved specific questions that were designed to answer the research questions outlined in Chapter One. In total, 1300 questionnaires were distributed to DL instructors and learners; 127 valid instructors' questionnaires and 371 valid learners' questionnaires were analysed. The general results suggested that the majority of respondents agreed that, while information services and resources, and in particular the role of the AL in supporting DL programmes, was important, their needs were not presently being satisfied. The results also revealed that the first preference of DL instructors and learners was to create a centralised IS centre to support all DL stakeholders in the country as a response to the current weak provision of library and information services support provided for their teaching and learning by distance.

The data obtained from DL stakeholders regarding their attitudes toward the best model to support them with all the necessary information services and resources were analysed and two models gained the same level of agreement from both distance instructors and learners. The model that was ranked first by both instructors and learners supported the creation of a National Centre for e-learning and DL in the MHE which would develop initiatives to support all DL stakeholders in the country with information services and resources. The second alternative model, which was also ranked highly by both instructors and learners, was that the deanship of DL in each university should create its own e-library to support its DL stakeholders. However, the least desirable option (ranked lowest) by both stakeholders was that the current services provided by the AL are already satisfying DL students' needs. This illustrates the overall result of this study: those academic libraries are failing to satisfy and support DL stakeholders' needs. In addition, this result showed the shortcomings and the weaknesses of the current information services support that is designed for DL stakeholders. In addition, the qualitative data, collected through the open questions from both instructors and learners, offered a number of suggestions and recommendation regarding the provision of library and information services and resources in the life of DL programmes.

Chapter Seven
Discussion

7.1 Introduction

The aim of this chapter is to discuss the findings and conclusions obtained through the research methodology. The results presented in this chapter are studied in relation to the research aims, objectives and questions introduced in Chapter 1. In short, this chapter discusses the results presented in Chapters 5 and 6 in relation to the study background presented in Chapter 2, the literature review presented in Chapter 3 and the research methodology presented in Chapter 4.

Overall, by analysing data obtained by interview and by questionnaires, overall results support in the first place the idea of adapting two models to support DL programmes and their stakeholders with all information services they may need. These two models and others, which are less preferable, are discussed in more details in 7.3.6.6. However, the two most preferable models as discovered by this study are as follows:

- According to managers' perspectives, academic libraries should be able to extend their services for all of their users, including DL learners. This model can be shown as illustrated in Figure 7.1.
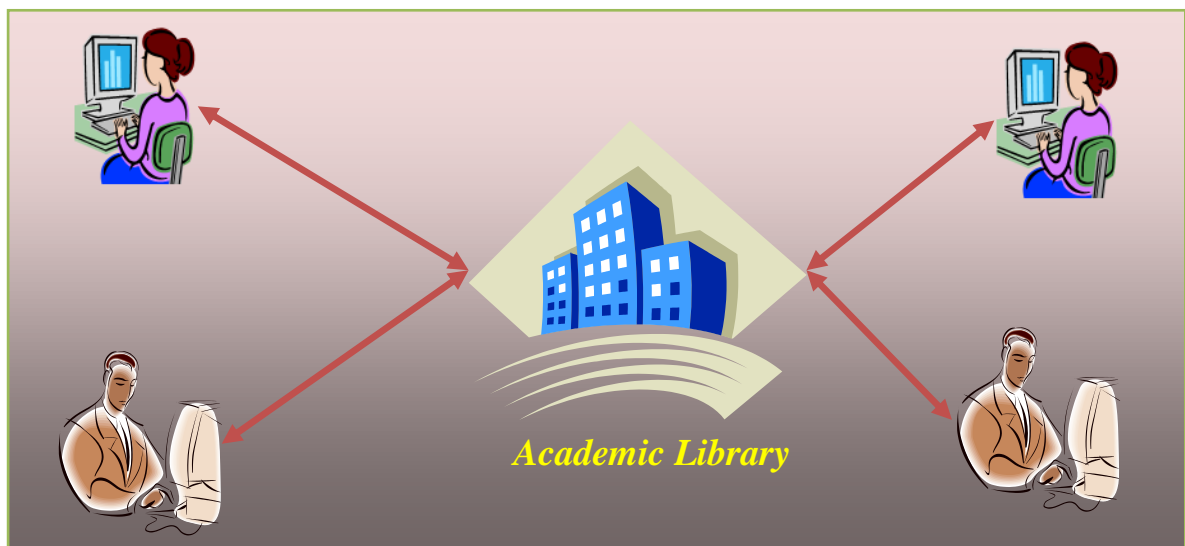
Figure 7.1: Academic library Model

- According to DL stakeholders (instructors and learners) they preferred in the first place the model where the National Centre for E-learning & DL in the MHE should have the responsibility for supporting DL stakeholders with all the information services they need

by creating a centralised information service centre. This model can be visualised as illustrated in Figure 7.2.
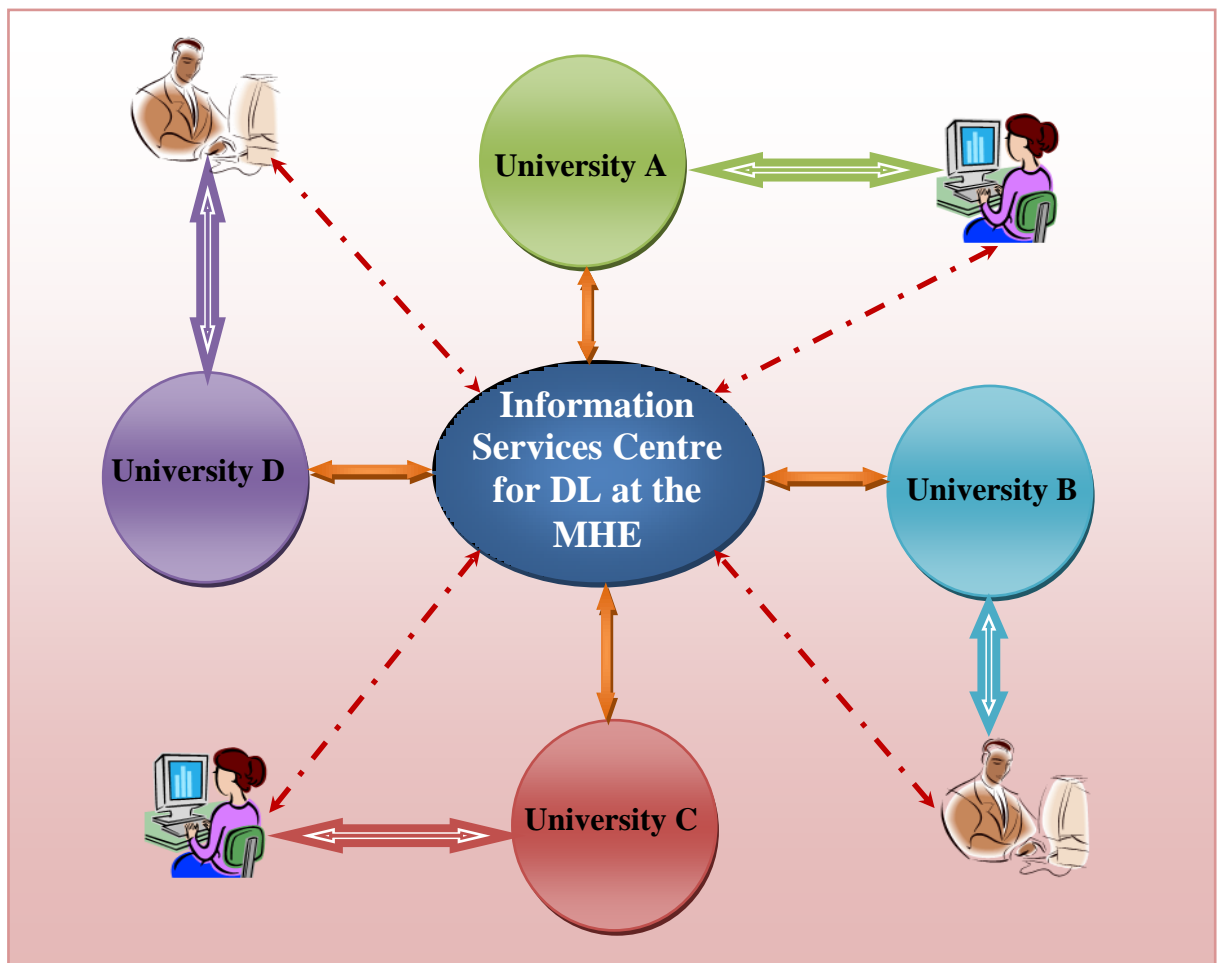
Figure 7.2: Information Services Centre for DL at the MHE: Proposed Theoretical Model

In addition, Figure 7.3 represents factors shown to be negatively affecting Saudi HE, DL, and academic libraries and their interrelationships. Other factors illustrated in Figure 7.3, suggest development solutions for the provision of AL for DL and could be considered in designing and planning the future of the library information services provided for DL in Saudi HE. Overall, the study's results show that there is strong support for providing DL stakeholders with information services using one of the several models highlighted in this study. These are seen as ways of starting a new era in Saudi HE where DL stakeholders can be finally recognised, thus overcoming the kind of problems and challenges discussed fully in this chapter and represented in Figure 7.4.
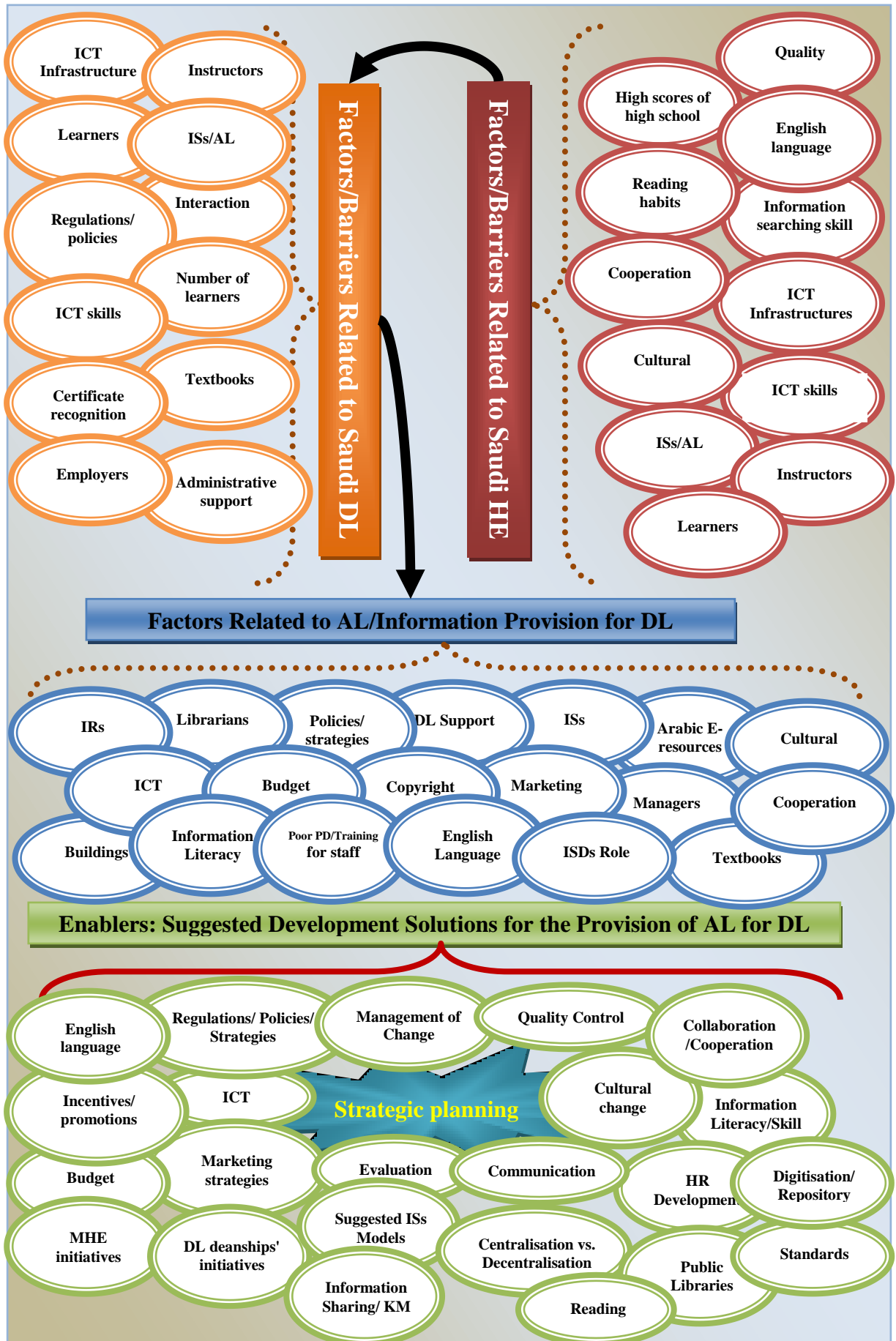
Figure 7.3: Visual Presentation of the Research Factors

It is obvious that DL is an important part of the current Saudi HE and, in reality; DL cannot be isolated from problems associated with the whole HE system. This study has discovered that DL is currently facing a number of problems. Some of these problems are associated with the DL system itself and its stakeholders, while others are associated with the universities and their support services such as academic libraries. These problems could have an effect on defining the role of academic libraries and their information services in Saudi HE, especially in providing ongoing support for DL and its stakeholders. So, focusing on the general problems facing DL in the current Saudi HE system is a useful preface to a further discussion of how the role of academic libraries affects DL stakeholders. The problems commonly discovered and related by this study usually involved the broad topics illustrated in Figure 7.4.
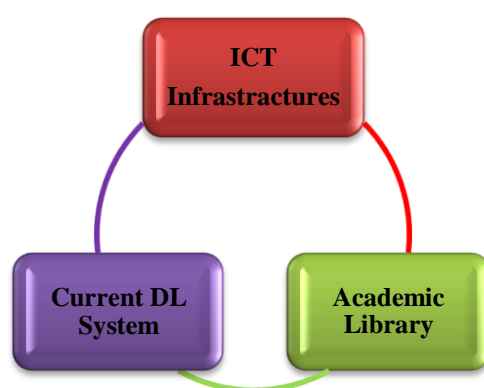
Figure 7.4: Main Issues Discussed

Problems related to the above topics are, in some circumstances, interrelated and they have been mainly categorised into three groups to ease discussion, as illustrated in Figure 7.4. Overall, they also have been divided into two main sections to easy this discussion: general issues and specific issues relating to DL and AL. Many participants in this study criticised the current DL provision in SA. These criticisms can be very useful in diagnosing DL and AL problems clearly in order to provide the solutions and recommendations that can be used to tackle them, especially those related to the links between academic libraries and DL.

7.2 General Issues

7.2.1 Problems Linked to ICT

The important role of ICT in the current study has been discussed in detail. ICT is considered to be one innovation that has been rapidly developed to make the lives and education of people more efficient, easy and fruitful (Oliver 2002). However, the application of ICT in Saudi HE, especially in DL and academic libraries, is facing the problems shown in this

research that are hindering the development of DL and academic libraries. The main problems are introduced briefly in Figure 7.5.
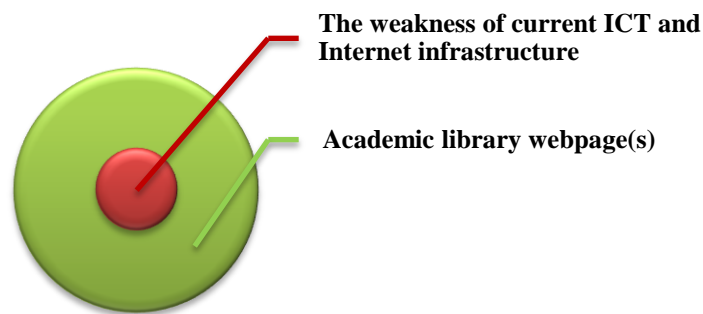
Figure 7.5: Problems Associated/Related to ICT.

7.2.1.1 Weaknesses in the Current ICT and Internet Infrastructure

This problem, as experienced by participants, can limit the development of initiatives and the implementation of e-learning to replace the existing DL, and reduce the academic libraries' services and support for DL. In current practice related to DL and e-learning, the success of any ICT initiative in Saudi Arabia (SA) should be associated with a speedy Internet infrastructure that can reliably cover all rural areas. This need for a high-speed Internet is supported by Sharifabadi (2006) and the Chin and Kon model (2003). In addition, the price of Internet access, combined with the price of PCs, is reducing the opportunity to spread DL by using e-learning. It was clearly found by this study that the price of Internet access in SA is very high, and Internet use is lower, compared to some other, less wealthy countries. For instance, the CITC report (2008, p.18) showed that 27% of participants believed the cost of the Internet in SA was very expensive. Thus, students with limited financial resources are unable to pay for Internet access, which could damage the government plans for the spread of DL by using e-learning. In addition, a report on the SA education sector published by the CITC (2008, p.13) showed that only 45% of HE institutions have computers with Internet access, while only 25% of the students in HE have access to the Internet. This result is not promising for spreading education, including DL, through e-learning and supporting it with reliable e-resources and services.

Participants mentioned several general problems associated with the ICT infrastructure in SA, which have a negative effect on the quality of DL and the use of academic libraries. These include:

❖ Slow Internet; this has also been supported by a report published by the *CITC: Internet Usage in the Kingdom of SA: Education Sector,* (2008, p.14) which stated that the slowness of the Internet is the reason for 77% of the users being dissatisfied. 20%

of the users also mentioned being dissatisfied with interruptions to Internet connections. Altowjry (2005) showed that DL in SA required high-speed connections in order to achieve its goals. Also, Al-Oubod (2003) showed that the slow Internet speed and frequent dropped connections were among the obstacles facing students using the Internet in academic libraries. This is similar to the findings of Al-Hazmie (2004). Other related problems discovered in this current study include:

* Costly subscriptions to broadband services;

* Limited Internet services in many rural areas and sometimes in parts of cities;

* Censorship;

* Limited fibre-optic networks available in cities;

* Little Arabic content on the Internet (less than 1% of the total contents);

* Lack of training programmes including the use of the Internet in schools and universities;

* Computer prices: some participants could not afford PCs. For instance, distance learners found it very difficult to obtain a PC, which can hinder the spread of e-learning since each student must have access to a PC in order to fulfil learning requirements. This could reduce the future role of AL services in supporting DL through the Internet.

This is supported by Eyre (2005, p.14) when she stated that: "In some countries the lack of infrastructure is so severe that even the provision of an education system is difficult."

The increased population and the large geographical spread of SA have also played a key role in delaying the spread of the Internet, thus weakening the ICT infrastructure in many parts of the nation. Moreover, a lack of standards and guidelines, or the existence of weak ones, besides the existing censorship laws that are used to monitor the Internet, are hindering the development of DL. This result is supported by a CITC (2008, p.35) report about Internet use in SA which concluded "A good number of people (40%) in Saudi are concerned about information filtering while surfing the net [...]. They feel that this way they miss out on some crucial information and they should get full freedom to surf". In addition, universities have experienced problems related to the fact that currently the Internet in SA is quite slow and their attempts to widen the bandwidth are very costly. This result is supported by Walton and Edwards (2001, p.205) who found that insufficient bandwidth capacity limits flexibility. Hence, most obstacles facing the adoption of new technologies in the country, especially those affecting DL, are related to weaknesses in the current Internet infrastructure.

In addition, ICT infrastructure in the two case studies was discovered to vary. For instance, the AL building at KAU is lacking the most advanced ICT infrastructure due to its age and the difficulties in refurbishing it with the most advanced ICT equipment. In addition, it was found that, for the academic libraries included in this study, there is currently no official, independent, ICT department, recognised by the university administration. This lack of formal recognition of academic libraries' ICT departments by university administrations has resulted in many obstacles such as:

- An unreliable ICT infrastructure in these departments;

- Library servers still being maintained and located in the ICT centres;

- Non-specialist IT staff working in these departments due to the university not recognising the need to have ICT departments in academic libraries;

- A lack of the necessary support (staff and other resources), including AL managers;

- Limited staff access to library databases and an inability to make necessary changes, which usually can only be done by ICT centres.

So there is a need to assign an ICT department to each academic library (AL) and a few participants in this study suggested that the decentralisation of ICT support is the only solution for academic libraries. They support strengthening the existing ICT departments in each AL thus acquiring the full recognition of university administrations. This was considered several years ago by Basager (2001, p.188) when some academic libraries, e.g. those at KAU, requested their independence from the university ICT Centre. However, this recognition of independence must take into account the need for support from staff qualified in IT and the necessary equipment. In addition, transferring the library servers to the academic libraries is also necessary. This study found that current ICT centres usually take a long time to fix or recover any missing data so the official establishment of an ICT department in each AL, equipped with a strong ICT infrastructure and qualified staff, could help in solving many problems and provide a number of advantages such as:

- Reduced time to fix or maintain library servers and homepages;

- Close monitoring of the services and the flow of information;

- Developing academic libraries ' ICT infrastructure in a reasonable time and cost;

- Participate in providing the necessary training programmes for staff and users related to the academic libraries and their resources, especially in using OPAC and other databases;

- The opportunity to participate in providing easy access to library resources and services online, especially for distance learners;

- Participation with information services departments to facilitate the provision of the necessary information services for those away from campus, such as distance learners;

- Reducing the frustration for users caused by the frequent interruptions of AL services delivered through the OPAC or the library website.

Hence, the formal creation of an ICT department in each library, equipped with skilled staff and new technologies, and which has full responsibility for managing and running library systems, is suggested as the solution to the delays in many academic library e-services.

In addition, this study discovered that staff currently working in ICT departments in both academic libraries, especially at IMBSIU, lack the necessary qualifications to deal with ICT. For instance, it discovered that staff at the ICT department at IMBSIU library, although having an interest in dealing with ICT, were not ICT specialists; their background was purely related to librarianship. These findings support the results of Basager (2001, p.190) when he discovered that academic libraries lacked qualified IT staff, which he considered "a most serious problem which affected the provision of effective e- services to users".

It is clear that the quality of the ICT infrastructure, inside and outside universities, is very important in helping academic libraries to provide comprehensive and reliable information services for their users, including DL stakeholders. In this study, it was found that academic libraries in SA are facing problems with their ICT infrastructure, however. For instance, linking the AL's website with the main university domain was discovered to be limiting and slowing down their services, which can be very frustrating for current and future users. In fact, it was found that this linking reduced the time that the academic libraries' websites were online, which caused much frustration for off-campus users.

Other issues related to the ICT infrastructure in academic libraries were found to be related to the shortage of PCs linked to the Internet and the limited time available for users to use the Internet. It was found that many full-time undergraduates, especially at KAU, were restricted in their right to access the databases remotely. This restriction could be seen as very challenging for all users, including DL stakeholders. This unnecessary restriction was made by the AL for another technical reason: some students gave their passwords for others to use. In addition, there were limited numbers of terminals (fewer than 5) available to search online

databases in KAU's AL, despite the university having thousands of teachers and students. These problems and challenges, related to the ICT infrastructure of academic libraries, can hinder the establishment of high-quality, routinely-available information services for users, including DL stakeholders. In fact, designing information services to be used by DL stakeholders will not be successful until strong and reliable ICT infrastructures and ICT departments in each library are recognised and guaranteed. Moreover, DL stakeholders, especially instructors, identified the frequent failure of the library system (OPAC) and its websites as an obstacle in stakeholders using the AL and benefiting from its resources. Thus, academic libraries must be prepared to deal with this problem as quickly as possible to prevent losing users and also to keep their reputation intact.

However, this study reveals that DL stakeholders' use of ICT, such as the Internet, is not considered essential and this may continue because the need for interaction between DL stakeholders is not recognised. Hence, the application of IT in developing DL is not an easy task to achieve due to many factors, mainly related to ICT infrastructures. For instance, a weak ICT infrastructure may exclude many parts of the country and many learners from having the same opportunity to use e-learning as those living in large cities. For example, previous studies (Basager 2001; Al-Hadad 2003) suggest that the Internet is limited in some parts of the country and unavailable in others. In addition, this study found that the subscription fee for Internet services for universities is very expensive, limiting its availability to many teachers and students on- and off-campus.

7.2.1.2 Academic Libraries' WebPages

In conjunction with the discussion above, the results show that current AL web pages cannot provide basic IS support as they lack many services and features. This is because of:

- Unrecognised/weak ICT departments in academic libraries ;
- Lack of AL staff specialised in ICT;
- Poor ICT infrastructure in some academic libraries and in the country;
- Lack of continuing training programmes for librarians;
- A lack of courses offered by information science departments (ISDs) to train future librarians to deal with ICT and focusing on how to offer services for special users, such as DL stakeholders.

This result is supported by Qareeb (2008) (and also by Callo 2009) who identified weaknesses in Saudi academic libraries' WebPages compared those of western academic libraries.

The weaknesses of AL websites included in this study were ranked by instructors as the fourth factor that negatively inhibits current instructors and learners from benefiting from AL services and resources. In addition, DL instructors failed to include/advertise AL websites in their distance teaching practice, since current AL websites are often discovered to be without solid and useful information services designed to serve DL stakeholders, as 47% of them believed. This discovery could be related to several factors about academic libraries, as follows:

- The limited access to information resources available on the websites;
- The lack of and/or weakness of guides about information services and resources;
- The weaknesses/poor standards of academic library website designs;
- The frequent failure/crashing of academic library websites;
- The failure of academic libraries to answer questions sent by e-mail to their websites.

These factors can be seen as responsible for hindering users from fully using the academic libraries. Furthermore, distance learners remain unacknowledged on these libraries' websites. For example, limited/restricted access to many useful databases for many students, including distance learners, and less attractive websites were among the problems described by Kareeb (2007). As a reaction to the poor information services currently available in the academic libraries, 72.6% of the learners in this current study agreed or strongly agreed that they would prefer to have a complete set of all the reading materials, instead of using the AL. A small percentage (9.3%) disagreed as they preferred to have easy access to use the AL by themselves. However, Floyd and Casey-Powel (2004) insisted in their model that university websites should offer library services as a direct link. They saw this as being an important and most effective method of providing information services.

7.2.2 General Factors Associated/Related to the Academic Libraries

It is very hard to isolate the provision of the library and information services included in academic libraries in Saudi HE from their context, especially in relation to DL and its stakeholders. This study has so far identified several general problems and challenges that negatively affect the processes of running HE, including DL, and their relation to academic libraries. These problems seem to be common among academic libraries in the 21st century (The University of Illinois 2007). It was discovered that some challenges and problems facing Saudi HE, and in particularly DL, might be related to academic libraries and their information services. Some of the academic libraries' problems could also be related to current practices in HE, including DL. Figure 7.6 illustrates the relationship between academic libraries and Saudi

HE, including DL. It should be mentioned that some specific problems and challenges related to academic libraries and their relationship with DL are inherited from HE. Nevertheless, some internal factors related to academic libraries themselves could be blamed for delaying the process of supporting HE, including DL. These are discussed next.
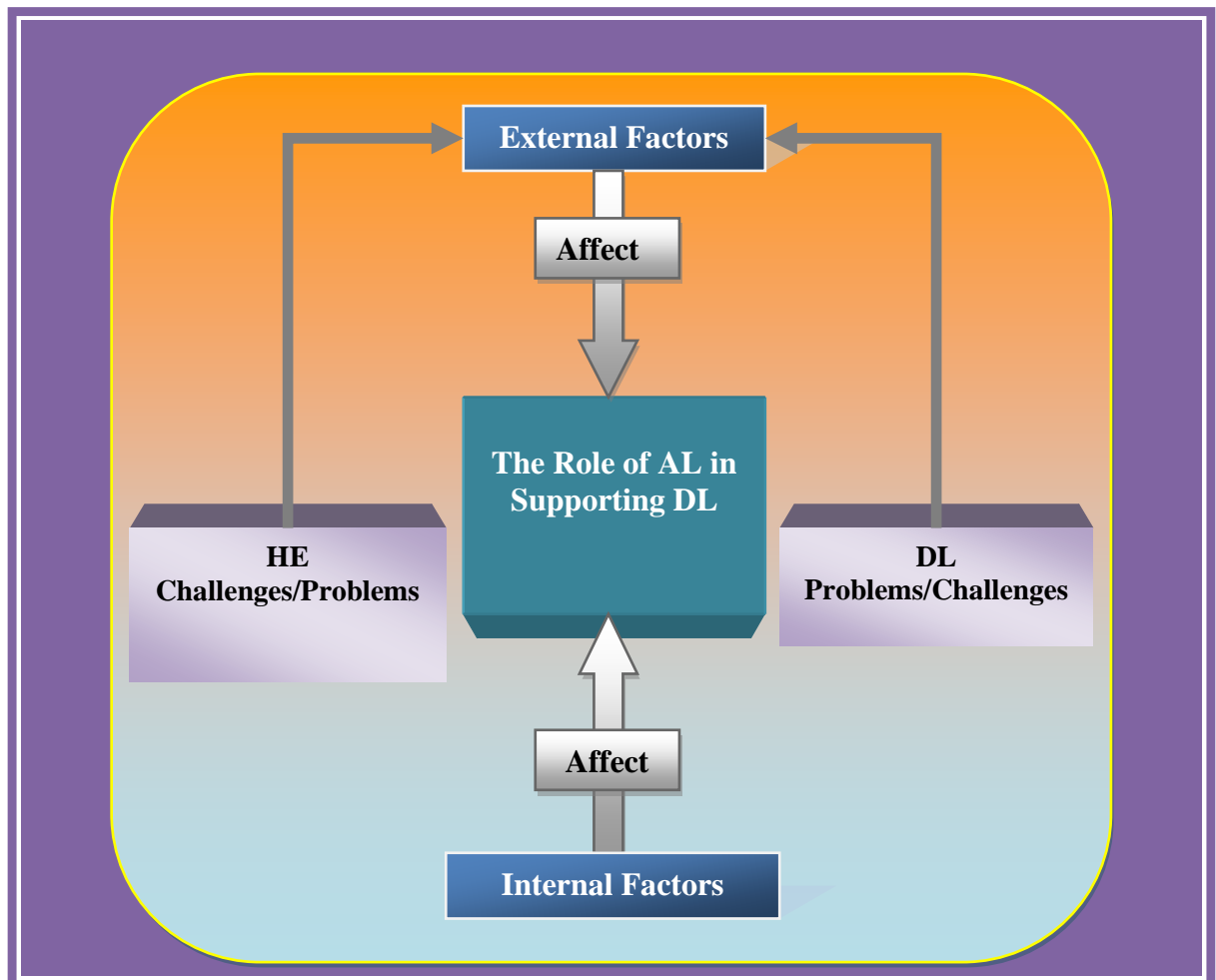
Figure 7.6: Factors Affecting the Role of Academic Libraries in Supporting HE and DL

General problems/challenges discovered by this study and relating to the provision of academic libraries and their services in the current HE, including DL, are presented in Figure 7.7.

Figure 7.7: Academic Libraries' General Challenges/Problems

Figure 7.7 represents general problems and challenges that have been highlighted by this study as being related to academic libraries and their services in the environment of HE, including DL. However, it should be mentioned that these problems have been found to relate to the broad perceptions of academic libraries and their current conditions, which were found to be generally weak, not only in terms of the environment for DL stakeholders, but also regarding the entire user experience. This discussion addresses the current condition of Saudi academic libraries, including issues relating to their current plans, services and initiatives, in supporting DL, which is further discussed in Section 7.3.11. This is done in order to obtain a reliable judgment about the current and future position of academic libraries in supporting DL. Hence, several sub-themes were introduced to support the main theme and to ease this discussion. Several general or specific problems are concerned with academic libraries'

continual neglect of DL stakeholders and their failure to offer them proper support, as this study has discovered. These problems were seen as very important since they could affect the ongoing initiatives to support DL stakeholders with appropriate information services. This is discussed in 7.5. It should be noted here that most of these challenges and problems are applicable to the academic libraries in both the universities being studied, unless stated otherwise.

7.2.2.1 Easy Access to Academic Libraries

Not only is the availability of information resources in the AL important for learners' experiences, so is their easy accessibility. The results obtained from distance learners showed that 53.4% of them agreed that they preferred to buy books and other information resources instead of using the AL. This result is due to the current failure of academic libraries to make their information services and resources easily accessible and usable by off-campus learners. Academic libraries seem to have ignored DL stakeholders for a long time and have not provided services and support physically or online. This result is the direct opposite of the DL support model designed by Hunter, Clarke and Shoebridge who stated that "Failing to make e-learning resources available with the VLE may create unnecessary barriers to learning and could undermine the effectiveness of the overall service" (Hunter *et al.* 2005, p.68).

Users, including DL stakeholders, may find it frustrating not to have any services designed for them or to be left without essential and easy access, on- or off-site, to information resources and services available in their academic libraries. This could be responsible for leading some of them to use other methods to acquire information, such as Google, public libraries and buying resources, instead of using the AL. This is supported by Webster (2006, p.387) who stated: "Internet search engines, particularly Google at present, have become very important centralized information services." Many learners were unable to provide an answer regarding their habits in using academic libraries and this could be related to the fact that they do not use them at all. Only a small percentage of distance learners (13.9%) claimed that they used the AL to support their studies instead of buying resources. Such learners could be those who have easy physical access to academic libraries, or who work and engage in DL at the same time as being on campus.

Hence, distance learners still face discrimination, both from their institutions and especially from their academic libraries, where they still do not have the right to access resources

remotely. This problem is partly due, as discovered, to the past abuse of database access by many instructors and full-time learners and therefore it is not possible to give DL students access to these databases. Technical ICT solutions are promising to prevent these abuses thereby allowing all users, including distance learners, to have easy access to AL resources around the clock.

Another important factor which has a role in hindering users such as DL stakeholders, especially learners, from fully using academic libraries, is the physical location of the academic libraries included in this study. DL stakeholders, specifically learners, are usually distributed all over the country, where some places have no libraries or even bookstores. Hence, the physical location of academic libraries makes them useless to many of those who live away from campus. However, other countries' experiences, such as Australia's, in supporting DL stakeholders should be considered. Rao (2006, p.234) stated: "Services can be based on delivery of library materials directly at student's [*sic*] homes, as in Australia, Canada and other countries where students are geographically remote from the institution at which they are studying." Without reliable transportation facilities inside or between cities where academic libraries are located, frustration and disappointment, especially for women who study as full-time distance learners, emerges. As recognised by Basager (2001, p.153), the general shortage of those using academic libraries in SA is common, due to many factors:

- The absence of good collections;
- The weaknesses of electronic services;
- The weaknesses of training courses;
- The lack of qualified staff;
- The instructors do not encourage students to use academic libraries.

This study found that these factors continue to affect the use of the academic libraries included in this study.

7.2.2.2 Arabic E-resources

Another challenge for serving current and future users, including DL stakeholders, is the weakness of the Arabic e-resources currently available online. For instance, this study found that academic libraries lack Arabic e-resources due to the shortage of publications. It has been found, for example, that only 0.04% of the overall Internet content is in Arabic (MII 2009).

Moreover, it was discovered by this study that most information resources currently available in Saudi academic libraries are published in English and therefore, proficiency in English is vital. However, this study discovered that some instructors had a negative attitude towards using English in their daily teaching and research; the results indicate that 16.0% and 18.4% of the DL instructors respectively had poor or fair knowledge of English. In addition, this result is supported by the CITC report which discovered that 70% of PC users use an Arabic operating system and English is used only by 12%, the majority of whom are Asians (CITC 2008, p.11). In addition, the CITC report on Internet usage by individuals also highlighted websites' language by stating:

> Only close to one-fifth of the Internet users in Saudi visit English sites. More than half the Internet users mostly visit sites in Arabic. And the 19% [of] users who visit English sites comprise more users in the Eastern province (39%). In most of the other provinces, like Riyadh, Qassim, Madinah and Tabuk, barely one in ten visit English sites (CITC 2008, p.21).

Hence, the English language could be a key factor in hindering Saudi DL stakeholders' development. In addition, this discovery is supported by a study published in 2003 by Al-Oubod (2003) who found that the use of the English language on the Internet was the greatest obstacle to using and benefiting from the Internet for Saudi HE students. Many HE students, including distance learners, are leaving education with few or no skills in the English language. This result is confirmed by results obtained quantitatively where 48.4% of the distance learners stated that they have poor or only fair English language skills. This will not allow them to gain the greatest benefit from publications (printed/online) available in their AL or on the Internet. This result is similar to that of Basager (2001, p.146) and Alfontok and Alsultan (2000) who found that one of the major problems that faced users of the Internet or any other resources was that they were published in English. In this study, the lack of English language skills may have built up a negative attitude among students and led many of them not to use and benefit from the many information resources published in English. However, Chin and Kon (2003), in their e-learning model, insisted on the provision of language support to tackle this problem.

7.2.2.3 Budgets

The budget allocated for academic libraries is a very important factor in achieving the library's goals and projects, including serving other users, such as DL stakeholders. The results of this study show that in the past century, both academic libraries included in this study were having difficulties in managing their limited budgets. Today, these two academic libraries were found to be very satisfied with their budget allocation in the last few years, as

were other academic libraries in the country. However, although budgets have increased, which was seen as a positive factor, challenges have also increased, including the library's ability to spend these budgets in a way that could improve services and serve all users without discrimination, particularly DL stakeholders.

This improvement in budgets has not been used to support all disciplines, including those of DL stakeholders. It is very disappointing that no information services have been designed to serve DL stakeholders. The current practice of academic libraries of not designing and serving DL stakeholders may continue as the current increase in AL budgets might come to an end soon, due to weaknesses in the global economy, including the Saudi economy which relies heavily on oil prices which might drop dramatically. This could affect spending and the AL sector could be the first to have its budget cut. So, a serious question might be raised regarding current and previous spending in academic libraries where no single IS has been designed to meet DL stakeholders' needs despite the programmes running for several years.

It was discovered through the literature review that even current information services provided to regular users are poor and do not meet users' needs. For instance, although the academic libraries' budgets have increased, serving users and providing them with basic information services, such as document delivery, is still under pressure from budgetary constraints. This raises a serious question about spending priorities. Future budgets should take into account allocating the necessary funds to design and implement the necessary information services that should be offered to those who study at a distance. This will not be achieved unless the following factors are considered:

1. Building strong and formal cooperation between DL, AL and ICT; this is supported by Park (2007);
2. Strong academic library strategies which include information about DL stakeholders and their right to be served;
3. Strong and formal ICT departments in each academic library;
4. Qualified librarians;
5. Strong ICT infrastructures in universities, academic libraries , DL and the country;
6. A unique department/unit to serve DL stakeholders in each library.

In short, the increase in budgets must be used wisely since libraries usually suffer first when universities' budgets decrease (Tunon and Ramirez 2004, p.490).

7.2.2.4 Unqualified Librarians

It seems self-evident that academic libraries which lack qualified librarians can meet neither their goals nor their users' expectations. This study confirms that librarians constituted one of the most important issues on which the whole system of information provision by academic libraries depends. For instance, it was discovered that academic libraries' lack of qualified and enthusiastic librarians who could serve users, including DL stakeholders, was very damaging, even when the academic libraries' infrastructure for providing information services was available. Many studies support this finding in the Saudi context (e.g. Al-Okla 1998; Basager 2001; Alsereihy 2002; Al-Haddad 2003; Abas 2005). These studies have found significant limitations in librarians' skills and desires in providing qualified information services for users. In this study, the interview analysis, together with questionnaires, found that there are shortages of staff skilled in dealing with ICT in academic libraries. This was viewed by participants as very disappointing and a factor that should be addressed as soon as possible. Distance instructors, as well as learners, believed that there were fewer skilled and knowledgeable librarians than expected to answer questions and provide information services. This has limited their use of the AL. Delaying, or sometimes ignoring, users' requests was considered very damaging for an academic library's reputation and isolated the library from its community. Librarians' lack of skills and knowledge in providing the necessary information services and support was ranked by instructors as the 7th of sixteen factors affecting their use of academic libraries. Distance learners ranked this factor as the 14th. This result could be related to the fact that many of the distance learners rarely visited or used academic libraries and were therefore unable to judge librarians' skills.

Following this result, it can be suggested that recruiting qualified librarians is one of the most challenging tasks facing academic libraries and one which can hinder their efforts to support users. This is due to many factors, for example:

- It is rare to find librarians who can deal with the ICT which current academic libraries are using;

- Few librarians can be found who can speak English or other languages beside Arabic;

- ISDs at universities are not providing the necessary courses/training to their graduates to deal with topics such as information services for special users, IL, IT, and the English language. These would be useful, especially to support special users, such as DL stakeholders;

- Salaries and incentives are poor compared with other sectors.

In addition, it is not surprising to discover that training existing librarians to use new IT is very challenging and many librarians found it very difficult to learn the new skills required. This has resulted in delaying AL projects and the implementation of the Internet and its features, such as Web 2.0, for remotely supporting DL stakeholders.

In addition, a shortage of skilled librarians currently working in the AL environment was found to result in no services at all being provided for off-campus users and having a negative effect on services for on-campus users. Some participants supported the idea of a continuing training programme in academic libraries, which could improve librarians' skills and so encourage them to participate more in serving all users, including DL stakeholders. It could build confidence and improve their self-esteem and also strengthen their user-service commitment.

7.2.2.5 Current Information Resources

Today, Saudi higher education (HE), including academic libraries, has no excuse for failing to provide well-qualified information services both on-campus and for DL, as their budgets have recovered due to:

- The development of the Saudi economy;
- The strong support offered by the Custodian of the Two Holy Mosques, King Abdullah Bin Abdul-Aziz, who has emphasised the importance of reforming Saudi HE;
- The increase in HE budgets;
- The 8th Saudi development plan which supports the spread of HE as well as the importance of information.

With the current increases in budgets, academic libraries have the capacity to acquire the most recent resources (traditional and non-traditional) available in the publishing market, in line with their plans, policies and users' needs. This could help to improve the quality of resources available in the library. In addition, acquiring the most recent information resources and informing users about them, could be used as a means of attracting users, including distance learners, to the library. The results of the study show that 34.8% of instructors considered the information resources available in the academic libraries to be out of date. This was given as a reason which affected their usage of their AL. This factor may indeed hinder DL instructors from using the AL and may direct their searching habits towards using other sources of information, such as the Internet, instead. In addition, it may even have encouraged

instructors to direct their distance learners away from using the AL. This can have a negative effect on teaching and learning at a distance.

In relation to the problem of some current information resources being out of date, there is also a lack of full-text databases related to users' interests (such as ERIC, e-books and other important databases, especially in Arabic) available in the academic libraries. DL stakeholders, especially learners, considered this to be the 7th highest factor which badly affected their current use of the AL, with instructors ranking it as the 10th. The limited number of important, full-text databases related to users' interests, currently available in academic libraries, is associated with the weakness of some other information services currently offered, such as inter-library loan, remote access and document delivery services; this can be very frustrating, especially for distance teaching and learning. Hence, DL stakeholders may not, in the first instance, think to use academic libraries while they are away from campus. In addition, offering bibliographic databases in academic libraries, as mentioned by some participants, seems pointless, especially if they are not supported by other important information services, such as document delivery and inter-library loans, the weaknesses of which are associated with the current lack of cooperation between Saudi academic libraries. The evidence suggests that Saudi academic libraries should concentrate on subscribing to full-text databases instead of bibliographic ones, which, according to participants, are less useful for several reasons:

- They were found to be useless for users who generally require immediate full-text resources such as books and articles;
- Lack of full-text databases in academic libraries could affect the quality of teaching, learning and research, especially in DL;
- Lack of full-text databases could make DL stakeholders struggle to find full-text resources elsewhere;
- It is not practical, as suggested by some participants, for distance learners to subscribe to databases that do not offer full texts, particularly in the Arab world and especially in the Saudi context where cooperation between academic libraries is limited;
- The current absence of reliable information services offered by academic libraries could be overcome by subscription to full-text databases.

It should be mentioned that the latest statistics for the usage of the largest AL in SA and in the Middle East (KSU library) announced in a recent conference in December 2009, and published in the KSU newspaper (Risalat Al-jameah), that less than 10% of the library

collection is being used by full-time students. This raises an important question about off-campus access (Hmead 2009).

7.2.2.6 Marketing

Marketing and publicising AL services and resources to their users is very important (Dodsworth 1998). However, it was discovered that both academic libraries included in this study do not market themselves efficiently by using available media, such as the Internet, including Web 2.0, newspapers, radio, TV, e-mails, and other tools. This factor can be considered as one of the common problems that may be responsible for limiting the current use of academic libraries and their services. It has also been discovered that there have been no marketing strategies devised by either of the academic libraries included in this study. A marketing strategy that can inform users about the AL services and resources was singled out by questionnaire respondents as the most important negative factor preventing an AL from supporting all its users. So, it is clear that the lack of marketing is contributing towards the current absence of academic libraries and their services in the minds of many users, including DL stakeholders.

Examining DL stakeholders' awareness of the information services currently available in the academic libraries is a very important step towards finding out how effectively these libraries serve their users, including distance learners. The results showed that the instructors' awareness of the information services available in academic libraries involved the following:

- Photocopying was shown to be the most commonly available IS offered by academic libraries, (57%);
- Document delivery services for journal articles and other documents (40%);
- Inter-library loans (32.8%).

Other information services beneficial to DL were rarely mentioned, which indicates that very important services are not generally available in the academic libraries, or they are available with limited access but nobody knows about them. This result suggests that many DL instructors knew nothing about many services such as interlibrary loan.

According to distance learners, the information service (IS) most frequently offered was photocopying. This was similar to results obtained from instructors, with a percentage of 48.0%. Generally, the findings suggest that a high percentage of respondents knew nothing

about the information services being offered by their academic libraries and it is suggested that this is due to:

1. Vague and limited academic library strategies;
2. DL stakeholders remaining unaware of their rights to use the AL and other resources;
3. Lack of cooperation between DL deanships and academic libraries;
4. Lack of marketing strategies in academic libraries;
5. Lack of policies, both in academic libraries and DL deanships, which mention the right of DL stakeholders to be served and supported with information services.

Hence, the evidence suggests that a strong emphasis should be placed on the development of strong and effective marketing strategies by applying all available resources and tools that can be used to attract both on- and off-campus users. This could be used as a way to publicise an AL's existence, services and resources. This idea is similar to that of Al-Salem (2000; 2008) who suggested several approaches that can help in developing academic libraries, such as increasing the marketing of library services. The findings of Stockham and Turtle (2004, p.450) also support this. They said: "[…] the team felt that publicizing services was the most important strategy".

In fact, many participants, especially distance learners, felt that they knew nothing about academic libraries and their existence during their studies, suggesting that academic libraries are having difficulties in creating effective marketing strategies that can be used to attract their own community members, including internal and external users, to benefit from all the library's information services and resources. The results also revealed that communication between academic libraries and DL deanships and their stakeholders is completely lacking due to a lack of marketing techniques and cooperation. This factor has meant that any attempts to serve DL stakeholders are likely to fail. As a result, marketing, in conjunction with the strong cooperation between DL deanships and academic libraries, could help to improve the marketing of AL services to DL stakeholders. Also, it could be very helpful in attracting university administrators' attention, which was discovered to be negative towards the importance of academic libraries and their services, as users increase their demands for academic libraries and their services.

7.2.2.7 Buildings

Academic library buildings usually host information services, activities and resources to serve users and can therefore be considered to be an important asset. However, the physical conditions of AL buildings included in this study were found to be variable, each with their own particular problems. For instance, the AL building at KAU was found to be very old with many weaknesses. For instance, a large area of the library is currently vacant as it is unsafe. This could be troublesome when trying to spread and improve its services in the future. In addition, the ICT infrastructure, electricity, air-conditioning, toilets, offices and more, are below standard. Together, these problems may well have played a role in reducing current information services for on-campus users to a very weak level.

On the other hand, the AL at IMBSIU was located in a modern, well-designed building. However, recently, a large part of the building was forced, by the university administration, to be allocated to a new faculty (The Computer and Information Faculty) This, according to managers, badly affected staff attitudes, library services and some of their future plans to improve the library services. In fact, this factor could result in delaying any plan in the future to serve additional users, such as DL stakeholders. This incident could be used as evidence for the current negative attitude of the university administration towards the AL and its role in serving its community.

7.2.2.8 Cooperation

A discussion of the lack of cooperation between government offices, and especially between and inside universities, is very important. For instance, cooperation between all Saudi academic libraries could be very valuable in the process of supporting users, including DL stakeholders. It has been seen as a tool that can: "provide libraries with essential tools for meeting the challenges of the future" (Recognition and Hyman 2000, p.97; cited in Webster, 2006, p.383) especially at a time of information explosion. Basager (2001, p.188) suggested that cooperation between universities could solve many problems facing Saudi academic libraries. This was also supported by Webster (2006, p.382) when he noted that cooperation among libraries is the solution to develop their information services. Indeed, this study discovered a lack of cooperation between Saudi academic libraries similar to the results of Basager (2001, p.197). It was also noticed here and by Basager (2001, p.197) that the lack or vagueness of policies and guidelines was among the reasons for the lack of collaboration and cooperation between Saudi academic libraries. This may badly limit users', including DL stakeholders', right to use the information services available in these libraries. The lack of

rules, standards and guidelines among academic libraries was thought to be responsible for the inability of DL stakeholders to use any AL services in the country. Webster (2006, p.384) asserted that standards are a necessity, but the academic libraries included in this study had none. Webster (2006, p.382) concluded his study by saying: "[...] close cooperation is allowing libraries to take their services to new levels and is key to the continued innovation of those services".

In addition, an exploration of the cooperation between ICT centres and academic libraries to facilitate library e-services, especially for DL, was undertaken. It was discovered in both universities that ICT centres support academic libraries in setting up their digitisation projects according to particular standards and in a way that could make storage and use easier. Cooperation between academic libraries and ICT centres was found to exist in both universities as academic libraries have started to depend heavily on ICT, not only for providing e-resources, but also in their daily work routines. Hence, it was found that supporting the academic libraries' current ICT infrastructure was becoming one of the ICT centres' tasks. This existing cooperation could be strengthened at a level that could be used to develop future information services, which could serve all university communities, including DL stakeholders. Further discussion of the cooperation between academic libraries and distance learning is given in Section 7.3.5.

In relation to the topic of cooperation and using the Internet to support DL with information services, two approaches were discussed: centralisation and decentralisation. The supply of information services through the Internet is always a debatable issue and various attitudes were discovered and are discussed in this study. These attitudes are associated with the best solution/model to be used in deciding what the most effective IS model might be. This forms the topic of the next section. A number of participants agreed on the importance of centralisation in supporting DL with information services because a centralised body could serve all DL users in the country without duplication. On the other hand, other participants favoured decentralisation, where each AL or DL deanship has the full responsibility and the commitment to support their own users.

7.2.2.8.1 Centralisation

Many DL instructors and learners in this study supported the centralisation model. This is also supported by Webster (2006, p.387) when he noted that: "in a growing number of situations, nationally or internationally, centralised library services are developing" and that "the

possibilities for centralised information and library services are great" (Webster 2006, p.389). Data showed that the success of the centralisation approach would help in eliminating duplications in providing information services and resources, which are very costly. This is supported by Roitberg (2000) who claimed:"[…] cooperation is a positive tool to achieve centralisation" and Coder (1993) who said: "Centralization of reference service points [is] feasible now since providing information is no longer place-dependent in an electronic environment."

However, the positive attitude towards centralisation in this study could be related to, and be a reflection of, the current weaknesses of AL and DL deanships to support their users. So, any attempt to support this kind of education will be welcomed, including centralised support. For instance, some participants believed centralising the support of the MHE for information services and resources could be very quickly achieved and was a reliable solution to support DL with all the information services and resources they may need. This centralisation could provide other advantages, besides those discussed above, including a more widespread use of DL in the country in the future and the promotion of university users' right to equality with on-campus users in gaining access to information resources and services.

7.2.2.8.2 Decentralisation

Strong support was discovered for the centralisation of the information services for DL. However, other participants (6.4% instructors; 13.2% learners and 78.2% of interviewees) were found to be less inclined toward centralisation. They claimed that decentralisation of information services to support DL stakeholders would be a more reliable method of providing information services and resources. As found in this study, support for the idea of decentralisation of information was related to factors such as the lack of practicality of offering information services through centralisation, which would be difficult to achieve for several reasons. For instance, the current lack of cooperation and coordination between universities would make it difficult to build and design a reliable, strong, centralised centre to support all DL in SA. Another reason is that the ICT infrastructure, including the Internet, in universities and in the country would be too weak to support these centralised services. In addition, the current freedom experienced by public universities, and their reluctance to give up this freedom, could reduce the chances of creating a centralised system and so decentralisation may be the only solution. This has been illustrated recently when only a few public universities were willing to sign a collaboration contract with the DL and the e-learning centre at the MHE, as mentioned by an interviewee.

In addition, limitation and duplication of resources and efforts were among the reasons that might encourage the idea of centralisation. Centralisation was seen, by some, as a factor in reducing cost and effort, but sometimes, in the case of Saudi HE, decentralisation surprisingly could save more money and effort, as claimed by some participants. For example, duplication in acquiring information resources, and subscribing to databases between academic libraries and the DL information centre (the centralised information services), would not be easily avoided; as a result, duplication and waste of money would become an issue. Another reason for preferring decentralisation is that DL stakeholders would not be left to be served by the centre only and so their right to be served by their own academic libraries would be supported. So, decentralisation, where each AL or DL deanship serves their own DL stakeholders, would reduce duplication in serving them. Moreover, the proponents of decentralisation in this study believed that each AL should be responsible for serving its users, including DL stakeholders, individually and should fix their policies toward this end.

The rapid growth of ICT mentioned by many participants is promising to ease the process of serving DL stakeholders in a reasonable time through the Internet. In addition, it is thought that the centralisation of information services would help only DL stakeholders whilst completely ignoring others, which could also be considered as a waste of money and time. Hence, those decentralising theorists believed that DL stakeholders should be supported by their own academic libraries as they are part of the university community.

7.2.3 Problems Associated with the DL System

Several interrelated problems specific to the current DL system and its relation with academic libraries and their information services were discovered. These problems are depicted in Figure 7.8 and the sub-problems are also discussed in this section.

Figure 7.8: Main Problems Associated/Related to the DL System

7.2.3.1 Lack of DL Regulations

Results suggested that there was a lack of university regulations to manage and run DL in the country. Instead, faculties , departments and even instructors seem to have the right to provide and regulate DL according to their own designs and/or regulations. Distance instructors believed that DL regulations must be stated and understood clearly by all DL stakeholders in order to achieve the mission and vision of DL. The results showed that a high percentage of learners (53.5%), agreed that they are not required to carry out private study or other assignments, with only 28% of respondents disagreeing and stating that they do have to do this. Disagreement regarding this topic could be related to the nature of the subjects taught. In addition, it could be related to the degree of motivation and commitment that some distance instructors have towards their distance learners or to the lack of unambiguous regulations which allows each individual instructor to set his or her own regulations.

In addition, study results showed that 27.3% of the instructors and 18.3% of learners were unable to provide a clear answer as to whether or not they were required to set or do private study. These instructors are, perhaps, operating their DL teaching according to the experience of previous instructors who have never experienced assigning homework for distance learners and not according to any regulations which may exist. This result suggests that some distance learners might have graduated from DL without submitting a single assignment or homework, due to their instructors' practice of not setting assignments. This failure to demand assignments or other coursework from distance learners could be partly responsible for both learners and instructors not using academic libraries. This may discourage academic libraries from providing the necessary support, which would have a negative impact on the quality of distance teaching and learning, especially on the distance learners' final achievements. This was clearly raised in Chapter 5 when a learner insisted on "having a good quality education in order to compete in the workforce".

7.2.3.2 Interaction

Chang and *et al.* (1999) stated that interaction is the most important factor in DL. This study indicated a lack of interaction between distance learners and their instructors and with their universities in general, due to the lack of regulations, as discussed above. Ignoring this factor and its benefits could be very damaging for government initiatives to produce qualified learners through the application of DL and e-learning in HE. Many participants believed that the weakness of current graduates who had studied by DL could, in the first place, be related to the lack of interaction between elements of DL. For instance, it was discovered that some senior authorities in the universities believed that DL and its stakeholders, especially learners, are "an extra responsibility" compared to full-time students. This might lead universities to be less supportive and believe that distance teaching and learning can rely on using traditional methods, such as textbooks and other resources, and does not need to offer additional support. Such negative attitudes to the importance of providing more support, such as formal interaction, can be considered as one of the causes of the low quality of current DL graduates and the failure to recognise the importance of academic libraries.

In fact, due to the lack of interaction, teaching in DL programmes seems to be completely lacking, which can cause other issues, such as a lack of government recognition of DL, the rejection of DL graduates by some public and private sector employers, and the lack of action to support these graduates' right to support from academic libraries. The current absence of

interaction between DL stakeholders, as found by this study, could also be related to the limited implementation of e-learning and new ICT tools, such as Web 2.0, in delivering and facilitating current DL in SA. This lack of interaction could be responsible for universities' failure to recognise fully the DL stakeholders' right to be supported and their failure to build the necessary interaction with distance learners which has lead many of them to know nothing about their university libraries and their services, to the detriment of a successful DL system.

7.2.3.3 Increasing Numbers of Students

The demands for HE and DL are currently facing the same problem with student numbers increasing and outstripping supply and this could affect DL quality. Many who cannot be accepted onto full-time courses are usually directed to join DL, thereby increasing the pressure on those facilities. This increasing number of students has led to an urgent need to create more reliable tools to offer DL, instead of using current methods which mainly focus on textbooks and have weak/no formal interaction. The increase of students requesting DL is seen as very challenging and the application of ICT can be seen as a reliable solution, as mentioned by many interviewees. Even though the universities included in this study have recently started adopting e-learning as a solution to this problem, it is still not yet providing a practical solution or considering academic libraries. However, the increasing number of distance learners is affecting the quality of teaching and learning and the academic libraries' services, which, along with all other university services, are facing an increase in full-time learners. Hence, these pressures on academic libraries may lead them to delay offering their services to DL.

7.2.3.4 Textbooks and other Information Resources

An important problem that has been discovered by this study is related to the responsibility for the current shortage of textbooks and other information resources that can support DL. In fact, participants raised this issue suggesting that this factor and the absence of a practical solution is obvious to both learners and instructors. Learners, both male and female, usually found it very difficult to locate many of the assigned textbooks in their academic libraries, books stores and public libraries. Instead, they usually used handouts prepared by some enthusiastic instructors or some full-time students' notes, available in bookstores and in other printing service shops. According to this study, the shortages in academic libraries is related to/caused by:

* ❋ The lack of any effective and formal interaction due to a lack of DL guidelines;

❋ Increasing numbers of distance learners;

❋ A lack of cooperation between academic libraries and DL deanships;

❋ Failure to recognise the important role of academic libraries in supporting DL stakeholders;

❋ Incompetent instructors due to a lack of incentives and the heavy workload;

❋ A lack of cooperation between academic libraries.

In addition, many distance learners found it difficult to identify module requirements due to the mismatch between faculty booklists and the course syllabi handed out by instructors. Moreover, the study discovered that some textbooks recommended by instructors failed to cover the modules' contents fully and thus, learners had to find other resources to cover these omissions. This could indicate the instructors' lack of interest by not directing learners to resources other than textbooks. This discussion is supported by Boyer (1987, cited in Grimes 1998, p.8), when he said: "a textbook dominates the teaching and only occasionally is the library mentioned." This problem clearly confirmed the absence of guidelines, interaction and library and information provision when offering DL.

Data collected about text books and their relationship with academic libraries, revealed the following factors:

- Concentrating on textbooks as the only method of teaching and learning by DLs is limiting and reduces the use of academic libraries by all learners; it may also prevent academic libraries from providing the necessary information services support, other than making textbooks available when they can;

- The increase of on- and off-campus learners, combined with their focus on textbooks as the key source of learning, leads to an increase in demand and thus limited textbook availability in academic libraries.

Hence, these two factors are not helping academic libraries to provide the necessary support and they have proved themselves unable to satisfy learners', especially distance learners', needs. Concentrating on textbooks also discourages instructors from using the academic libraries; hence they are unlikely to encourage their learners to do so. For instance, it was found that 34.7% of the instructors gave no definite opinion about their habits in using their institution's AL. This again could be related to many instructors using textbooks as a teaching aid. This practice was also seen to be spreading in on-campus teaching. This result is supported by the findings of Al-Abdulali (2003) in her study of DL in Saudi HE. This found

that 73% of participants believed that heavy dependence on textbooks is one obstacle facing DL.

The reliance on textbooks is not alone in reducing visits to academic libraries; these books are often in short supply or are unavailable. The quality and quantity of information resources (information resources) available in the academic libraries, including textbooks, is an essential factor by which to evaluate them. Information resources, as well as information services, must be provided for all users. DL instructors in particular saw this as a very important factor (5th of 16) currently affecting their use of academic libraries. The shortage of textbooks, other information resources and a lack of Arabic databases were perceived as being obstacles to using academic libraries. This result is supported by Ukpo (2006). However, distance learners ranked the insufficiency of resources (books, journals, e-resources) as one of the factors limiting their use of academic libraries (9th of 16). This indicated again the lack of AL services for supporting many learners, including those working at a distance.

Relying on textbooks as the primary resource for teaching and learning in both on-campus and DL, could be very harmful for instructors, learners, libraries and HE because:

- For instructors, knowledge and what is taught might be limited by certain books and thus they may limit their learners' horizons;

- For learners, expanding their knowledge beyond the textbooks that are currently being used will be difficult and this might badly affect their learning and the knowledge that they might gain;

- For academic libraries, the effort, money and time spent on acquiring different forms of information resource, such as journal articles, and building their own knowledge base, will be wasted if users, including distance learners, have predefined learning materials/contents, such as textbooks, and, at the same time, have limited remote access to them through their library.

- For HE, including DL, the overall quality of graduates' might be weak, as their knowledge boundaries do not extend beyond textbooks, as concluded by Ukpo (2006).

7.2.3.5 Lack of Adoption of New Technologies

This study found that DL deanships have failed to introduce new technologies, such as Web 2.0, or to create useful and interactive portals that can allow current distance learners free access to information resources, thus badly affecting DL and reducing the positive perception

of the role of academic libraries in supporting DL stakeholders. In fact, Web 2.0 tools can be very useful when offering DL because "of their ease of use and rapidity of deployment, they offer the opportunity for powerful information sharing and ease of collaboration..." (Boulos *et al.* 2006). Nevertheless, Crook *et al.* (2008) and Franklin and Harmelen (2007, p.8) suggested that Web 2.0 has been increasingly used in HE, especially by enthusiastic teachers:

> While many people are beginning to make use of Web 2.0 technologies in learning and teaching, much of this is still experimental work carried out by enthusiastic lecturers who are willing to devote the time to make the technologies work for their teaching.

The failure to adopt new IT solutions to the benefit of DL by universities or by teachers could reduce DL's overall quality. Although the new DL deanships' current initiative is to focus on the introduction of a completely new e-learning programme for new students, the recent application of e-learning, according to the experience of KAU, is still facing some complications, such as:

- Instructors are reluctant to use e-learning techniques to teach;
- Internet availability in the country remains limited;
- Distance learners are still not always fluent in the English language and many of the curricula and resources are published in English;
- Distance learners are required to attend face-to-face courses, which many learners find very hard to do. This can raise questions about the ability of e-learning to cover areas of the country where the Internet is weak and when learners must attend face-to-face classes;
- Some DL stakeholders' IT skills are weak.

Furthermore, the study results indicate that the adoption of new technologies for DL is slow.

The results of the study suggest that instructors are very keen to participate in adopting ICT that can be used to develop DL. Instructors were found to be very supportive of the idea of implementing IT, including e-learning, and engaging the necessary support offered by the AL. This positive attitude could be very important in speeding up the application of e-learning in the country and in providing information services through the academic libraries, which has recently become heavily dependent on IT. However, the failure to adopt several ICT initiatives, such as Web 2.0, which has several advantages such as "[...] their ease of use and the availability of many Open Source/free or low-cost software and hosting options to run them." Boulos *et al.* (2006) suggests that DL in SA still depends on traditional methods, with textbooks being the major tool for teaching and learning.

7.2.3.6 DL Certificate Recognition

Many distance learners complained about the attitude of others regarding their qualifications. They mentioned that many private and public organizstions seldom employ distance learners, believing that their quality is lower than those who graduated as full-time students. Moreover, some authorities in the government remain doubtful about the products of DL, preferring to hire full-time students. In addition, despite the current government's investment in DL, especially e-learning, the recognition of the right of distance learners to be treated as normal students is still unresolved. This problem has left many distance learners very uncertain about their future. Uncertainty about the quality of DL graduates may continue because no information services have been designed by academic libraries to support DL, which may continue to isolate distance learners from an important support. This could reduce their knowledge and quality, which has been questioned and criticised by employers, especially in the private sector (elaph.com 2009). This lack of recognition could be used as evidence of the quality of current DL graduates, especially as there are no statistics about employment rates among DL graduates. The lack of existing evaluation plans to evaluate DL programmes and their graduates makes it difficult to make a clear judgment concerning the quality of DL graduates.

7.2.3.7 Lack of Administrative Support

Authorities in universities, especially those in senior positions, are the key to the success of DL. Their positive attitude about DL is very important for its survival and any lack of positivity is an obstruction to improving its quality. This study has discovered, through the interviews with academic libraries and DL programme deans that universities' administrative support for DL is weak because it is thought that DL goes beyond universities' duties and goals and therefore should have minimum attention. This could explain some of the current problems and challenges associated with DL, such as a lack of regulations, lack of interaction and the failure to provide IS support. Many participants viewed this as one of the factors responsible for the failure of academic libraries to support DL. This study suggested that both DL and AL university administrators are under-prioritising DL support compared with that for other departments and services. Moreover, they consider the academic library as a secondary, comparatively unimportant, support service.

7.2.3.8 The Lack of Basic ICT Skills among some DL Stakeholders

As this study has discovered, many DL stakeholders, especially learners, have difficulties in using ICT, including using the Internet, a result supported by Basager (2001) and Al-Hadad, (2003, p.492). Many of them are, in fact, quite illiterate when using ICT for educational purposes. This is also supported by the results obtained from questionnaires with 25.1% of DL stakeholders saying that they have poor or limited skills in using ICT. This finding is similar to that of Basager (2001, p.196) who found that a lack of ICT knowledge among academic staff, librarians and students in Saudi universities was the most important problem in accessing e-services. This result could be due to the lack of training programmes in using ICT provided by universities for their instructors and learners so that some of them cannot even search the Internet sufficiently to support their teaching or coursework.

Moreover, the findings indicated that some instructors, especially the older ones, were afraid of using ICT and found it very hard to use which reduces the use of technologies in spreading DL and its support services. This could negatively affect the achievement of distance learners. Some public universities in SA are not helping this situation by not adopting or encouraging the spread of ICT among their departments, instructors, students and staff. The lack of DL stakeholders' skills in using ICT must be addressed if the quality of their systems is to be improved. This could facilitate the development of DL through the implementation of e-learning and its components. As shown by this study, a small percentage of respondents were having difficulties in using the Internet. Although this problem is only found among a small percentage of stakeholders, it should be considered in order to ensure the spread of e-learning. This could be achieved also through offering continuing professional development programmes (PDs) and could help ensure the fuller use of the Internet for e-learning.

In short, despite some distance learners evaluating themselves as having poor or fair skills in using the Internet, it is now being seen as an essential skill for DL. This could be related to the current practice in DL where study is completely dependent on textbooks without the proper interaction which the Internet could provide. In addition, some distance learners were found to be having some problems using English language websites, thus hindering their efforts to navigate through the many resources available there. In fact, many learners, and some instructors, stated that they had no previous training in any IT subject, which is very unusual in universities. Moreover, lack of proper ICT training programmes for DL stakeholders is damaging. This is supported by Al-Abdulali's (2003) study, which concluded

that current DL stakeholders need to be exposed to ICT training. Hence, improving users' IT skills is required as this study's results showed that DL stakeholders prefer to access academic libraries either physically or through the Internet.

In addition, it was found by this study that ICT centres usually focus on providing the necessary support for university departments and staff. Universities made only a token contribution to the training and education of distance learners. This practice is linked with the problem, where DL stakeholders, especially learners, are having difficulty dealing with the new technologies that can support their DL. ICT training was found mainly to be offered to those on-campus thereby ignoring distance learners. In fact, it was discovered that no ICT training events have been offered to distance learners.

7.2.3.9 Distance Tutors

Several problems were found to be associated with the current DL instructors. These problems are discussed in order to understand them within their context. This could provide solutions and suggestions to develop and maintain the quality of DL in the country and could contribute to the recognition of the important role of academic libraries in supporting DL. Figure 7.9 represents the most important problems identified associated with DL instructors.
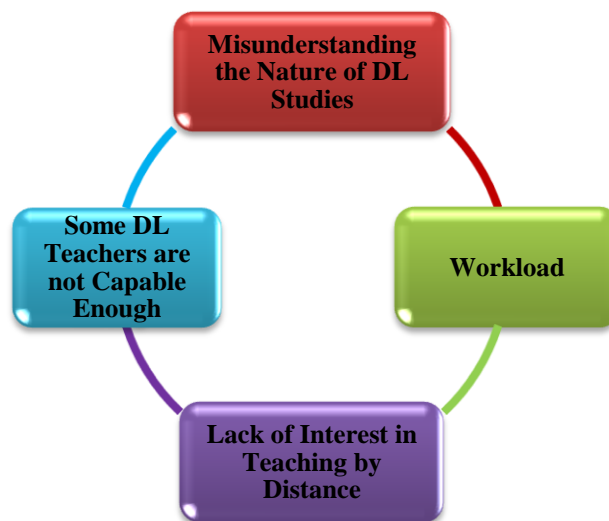
Figure 7.9: Problems Associated With/Related to Distance Tutors

7.2.3.9.1 Misunderstanding the Nature of DL Studies

The evidence suggests that some instructors believed that some instructors, as well as some learners, know little about the meaning of being a DL teacher or DL student. As a result, many instructors are giving this kind of education minimal support and effort compared with on-campus teaching. They believed that distance learners are required only to do final exams

and their duty is to mark them. This situation could be responsible for the current condition of this kind of education and the variable quality of its graduates; it could also be linked to the current minimal use of academic libraries by DL stakeholders.

7.2.3.9.2 Workload

It was discovered that distance instructors have many duties besides teaching on-campus or at a distance. At times, instructors were found to be required to teach distance learners while they had many other managerial and on-campus teaching duties. This could be responsible for the current limited support offered by instructors to distance learners, especially with the current lack of incentives offered by universities. This problem, which could be related to the lack of appreciation on the part of university administrators for this kind of education, is not only affecting DL, but also the teaching on-campus. This was discovered to be linked to the lack of regulations governing DL, which are obstructing tutors from directing their learners to use an AL. In fact, DL instructors were found to be overloaded with many tasks besides teaching, a finding which is supported by Alharbi (2002) who asserted that DL increases instructors' workloads. This result is also supported by Hines when he decided: "Faculty are very concerned with a perceived lack of time in the distant classroom" (2006, p.217).

7.2.3.9.3 Lack of Interest in Teaching at a Distance

In relation to previous factors, DL instructors' attitudes were found to display a lack of interest in distance teaching which could be related to the current lack of regulations. Participants believed that universities provide instructors with limited incentives and insufficient pay for distance teaching. Moreover, excessive workloads might hinder instructors' efforts to provide full assistance and support to distance learners. Hence, instructors might be giving low priority to support distance learners. Teaching by DL also seems to be less attractive to instructors due to the current minimal student-teacher interaction. They believed that the whole idea of distance teaching mainly involves spending extra time marking and grading at the end of the semester, which was found to be frustrating for instructors. This problem could be responsible for the failure of academic libraries to recognise DL stakeholders' rights whilst ignoring their own unique role in supporting them.

7.2.3.9.4 Some DL Teachers are Insufficiently Capable

In this study, an important problem was discovered which is related to the characteristics of some DL instructors. Many distance learners, according to their current experience,

mentioned that some instructors are not capable of distance teaching. This has caused some teachers to make little or no effort to help distance learners achieve their goals. Moreover, some instructors were discovered to be unenthusiastic about distance teaching and many were very hard to contact. For instance, some instructors were found to have difficulties in communicating with distance students or in responding to their requests to discuss their work; they sometimes ignored these students' right to communicate with them. The lack of rules, guidelines and standards, which seems to allow instructors to teach according to their own rules, could be responsible for this.

Hence, incompetent instructors could be an obstacle in directing and guiding their students, including distance learners, to use and benefit from academic libraries since this requires more time for instructors to set and design further readings. This cannot be carried out by incapable instructors, especially those discovered to be unable to use new technologies to deliver DL courses or direct their students to use the AL. This is supported by Edwards and Walton (2000) when they identified barriers to teaching staff's enthusiasm and commitment to use and develop libraries. This could be related to the weakness of existing regulations or to the lack of incentives provided for instructors to engage in distance teaching. For instance, Alharbi (2002) found financial incentives to be very important in motivating instructors to adopt DL and e-learning. In addtion, shortages of continuing training programmes for instructors in many disciplines, including IT, are not serving many instructors' needs as mentioned by many of them and as found by Al-Haddad (2003). Hence, the shortage of instructors using academic libraries can be seen as a sign of weaknesses in the current teaching of instructors.

7.2.3.10 Distance Learners

Distance learners and their problems form part of the whole picture of DL problems, including the provision of libraries and information services. Learners' problems were discussed by learners, administrators and instructors. The problems related to distance learners can be grouped according to several factors, as illustrated in Figure 7.10. These factors were found to have an impact on recognising the important role of academic libraries and their services, as mentioned in previous discussions.
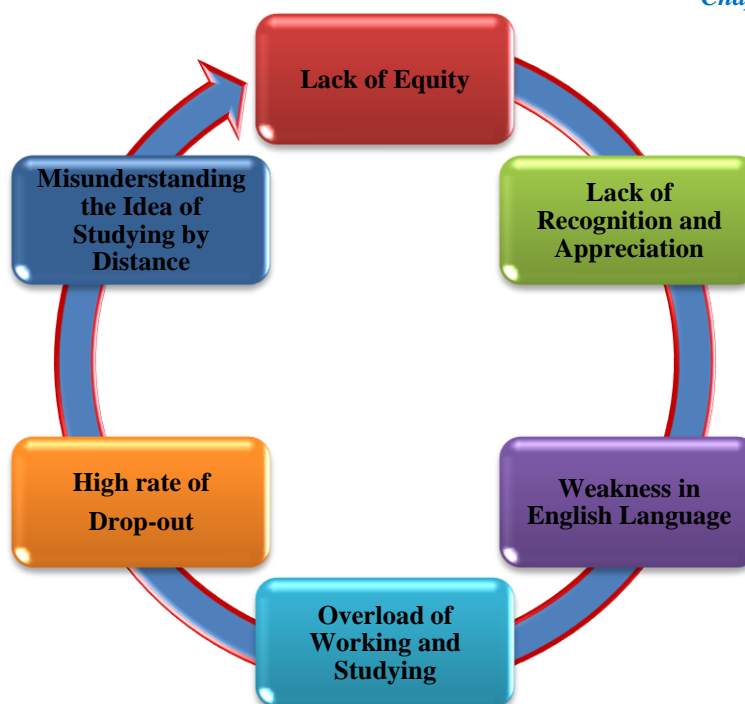
Figure 7.10: Factors Linked to Distance Learners

As illustrated above, many important problems for distance learners, which affect the use of academic libraries, currently exist in dealing with DL. First of all, many distance learners feel less well supported than on-campus learners, thereby missing out on AL support. Hence, the learners feel ignored, isolated and unappreciated not only by employers, but also by their universities. This has limited their freedom to access the support available in universities, including academic libraries. Many distance learners' English language skills were also found to be weak. For instance, 48.4% of the distance learners felt that they have poor or only fair English language skills, which will prevent them gaining the greatest benefit from publications available in their AL or on the Internet.

Furthermore, distance learners can become overloaded by both studying and working, which is an important factor in limiting their desire to seek out alternatives to textbooks. This factor in association with others, especially the lack of support offered by the Dean of DL and the AL, was found to be responsible for increasing the drop-out rate from the system. Many distance learners acknowledged that their ultimate goal is to achieve a degree regardless of their real achievement. This could be related to the overall DL regulations which provide little support or appreciation. This has led many of them, according to this study, to ignore using academic libraries and so limit their horizons to what is available, such as textbooks and handouts. Hence, the use of academic libraries is less attractive and unnecessary when other resources are sometimes readily available.

In addition, a common problem is the absence of formal interaction between learners and their institutions and instructors. This problem was recognised by learners, administrators and instructors as limiting learners' exposure to much of the available support, including academic libraries. Another problem is the reluctance to read, which can limit learners' knowledge, and lead to the DL system producing poorly-qualified graduates.

In short, the overall perception of distance learners was found to be negative toward the existing role of academic libraries in supporting them. They felt that they were being isolated from their own institution, which was seen by many participants as very damaging. Many distance learners felt that they were discriminated against, compared with on-campus learners; they felt that all the services and support available in universities were designed to serve on-campus users only. This negative feeling reflects the true current practice and picture in universities, including the academic libraries in this study, since little or no support for distance learners has been forthcoming from them.

As a result, this study discovered an increase in the rate of DL students being expelled or dropping out. This problem relates to the fact that many distance learners often misunderstood the nature of distance study or they lacked the necessary support, including that from academic libraries. Distance learners were not apparently highly appreciated or motivated to study at a distance. Solving the existing failure of DL to provide the necessary support for learners is seen as a key factor that could improve the quality of learning and motivate learners to improve their achievement.

7.3 Specific Issues (Academic Library in Relation with DL)

Other unique/specific problems were discovered to be related to the academic libraries in relation to DL. These problems were found to be hindering the efforts of academic libraries from serving their distance users. Figure 7.11 illustrates the main problems discussed in this part.
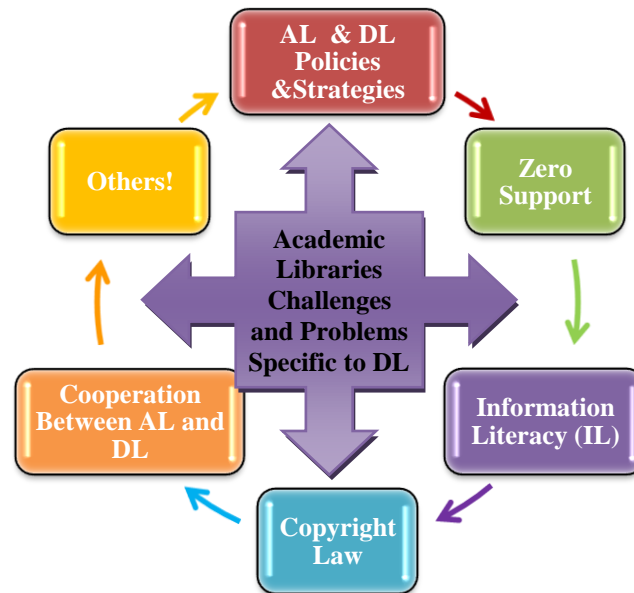
Figure 7.11: The Unique Problems of Academic Libraries in Relation to DL

7.3.1 Distance Learning and Academic Libraries' Policies and Strategies

Two important strategies related to this study are the DL strategy and the AL strategy. Both strategies are still in the process of being created at the time of this study and it is hoped, as mentioned by some participants, that they will be integrated in order to support DL programmes. Strategic planning and policies for AL are very important and are strongly recommended (Lorenzen 2004); they could help in directing efforts and resources to provide users, including distance learners, with quality services and support. Participants from both academic libraries and from DL acknowledged the importance of this study's outcomes and its findings in designing their future strategies. They believe that this study would direct both DL deanships and academic libraries to work collaboratively to consider the role of the AL in supporting DL and to make it part of their future planning strategies.

A lack of clear policies for information services and collection development that might help AL staff provide quality information services for all users, including DL stakeholders, was discovered by this study. The only time DL learners were recognised, and this was indirectly, was during the process of stating conditions for borrowing books. For instance, they required

'outsiders', in which group they included distance learners, to pay a deposit before being allowed to borrow only two books. Other than that, the academic libraries' policies ignore the right of DL stakeholders to be recognised as part of the university community. This was found to be common across the two cases included in this study. In addition, the number and duration of the book loans that instructors could make was another factor that was criticised by some DL instructors and was found to deter them from using the academic libraries. They ranked this as 6th among the factors affecting their usage habits. In addition, similar restrictions were applied to distance learners and this, for them, ranked 5th among the factors hindering them from using their home institution's AL. Such policies are perceived as unfair, especially when dealing with distance learners who are sometimes thousands of miles away from campus.

Despite the academic libraries included in this study having no existing plans and strategies to support DL, the IMBSIU academic library has considered this support to be relevant in the future. Hence, one interviewee explained that they have prepared a comprehensive strategy, including information about serving DL, which can be seen as a move in the right direction. The researcher was unable to gain access to this strategy to analyse how much consideration has been given to the topic of serving DL, since it still requires the approval of the university administration. A lack of commitment from some academic librarians towards their own libraries and users was discovered to be an obstacle when developing plans and policies that should acknowledge distance learners' right to be supported. The current documents that are available for analysis, such as AL policies, showed no consideration of DL, which may cause many difficulties such as distance learners being unable to use one of the basic services, namely, borrowing books. Thus, a 'vicious circle' exists where academic libraries have no policies acknowledging distance learners' right to support, so little or no action is taken to recognise DL stakeholders as users, and, in turn, academic libraries neglect to communicate with them about the services they require. This could be made worse by the current lack of formal and informal channels of communication/cooperation between academic libraries and the DL deanships about needs and future planning.

7.3.2 Lack of Support from Academic Libraries for DL Stakeholders

Opinions regarding the effect of information services in supporting and developing distance learners' achievements were obtained. The results showed that there was agreement on the importance of information services in supporting distance learners. It was felt that this support

could be an important factor in increasing distance learners' achievements. However, the results indicated that no special support had been designed to serve DL stakeholders, even though the current DL in the universities included in this study is longstanding. As a result, it was found that many DL stakeholders, especially learners, had to struggle to get the necessary information resources such as textbooks and other materials in their cities and villages, and often had to travel to other cities to get them. 28.5% of distance learners, as well as 22.1% of the instructors, were unable to provide clear answers about the existing information services available in their academic libraries. This could indicate their lack of knowledge about their AL and its services. This lack of knowledge could be related to a lack of marketing. It could also be related to the fact that distance learners, according to current practice, are not required to do assignments or use resources other than textbooks or readymade handouts available in bookstores or offered by instructors, as indicated above.

7.3.3 Information Literacy (IL)

Information literacy is seen by many studies (e.g. SCONUL 1999; Russell 2008; Knecht and Reid 2009, p.1) as one of the services that an AL should offer to support its users. For instance, training users in using the AL is a key factor in developing users' skills in benefiting from all the information services and resources available. The ACRL (2010) defined IL as: "[a] set of abilities requiring individuals to recognise when information is needed and have the ability to locate, evaluate and use effectively the needed information". It can be described also as a tool to learn to "integrate and evaluate information in complex situations and within communication structures" (Dorner and Gorman 2006, p.286). Dorner and Gorman (2006, p.284) identified the most practical aspects of IL in the developing countries as follows:

> The ability of individuals or groups…
> * To be aware of why, how and by whom information is created, communicated and controlled, and how it contributes to the construction of knowledge;
> * To understand when information can be used to improve their daily living or to contribute to the resolution of needs related to specific situations, such as at work or school;
> * To know how to locate information and to critique its relevance and appropriateness to their context;
> * To understand how to integrate relevant and appropriate information with what they already know to construct new knowledge that increases their capacity to improve their daily living or to resolve needs related to specific situations that have arisen.

Eyre (2004, p.2) decided that: "The ability to function effectively in what has been dubbed the Information Society requires high calibre literacy proficiency and the possession of a wide range of skills. […] Lack of literacy skills on this scale causes problems for living, working and for survival in virtually every area of life". She concluded: "we need to keep a weather

eye out for opportunities to support basic literacy as well as the more fashionable and 'sexy' preoccupations such as knowledge management and information literacy" (Eyre 2004, p.5).

The availability of these kinds of training programmes within the academic libraries included in this study was ambiguous. Firstly, it was found that many DL stakeholders are experiencing difficulties in using and adapting new technologies in their teaching, research and studies, which is a major problem in Saudi HE. The lack of DL stakeholders' skills in dealing with IT, as discussed above, has affected many of them as they tend not to visit the AL and do not search the library system (OPAC) or other information resources available on- or off-line. The current IL managerial perspective indicates that academic libraries do offer some training programmes, which are usually available for all users to attend. However, there was no IL designed for DL. It was also discovered that ongoing IL programmes are very traditional and include offering workshops, lectures, brochures and library tours. According to some participants, some of this training, such as workshops and library tours, is facing serious obstacles, such as poor attendance.

Furthermore, it was found that currently, academic libraries have not yet fully activated their websites for use in DL and have failed to set up virtual tours or other tutorials. In recent times, these methods have been seen as common practice on many AL websites and are considered both practical and cheap when dealing with distance users. However, what has appeared in the AL websites included in this study, in relation to user training, is only basic information about the library and its departments. Furthermore, nothing was found to be designed to train DL stakeholders. This could be related to the lack of:

- Cooperation between academic libraries and DL deanships;
- Marketing strategies;
- Policies and standards.

These factors could be responsible for failing to attract users, other than those based on campus. This result supports that of Basager (2001, p.148) with a slight difference regarding the introduction of the Internet. It is noticeable that both academic libraries have websites but they failed to use them to satisfy the need of users to be skilled in using libraries, while traditional IL programmes in both libraries excluded DL stakeholders. Hence, this discussion revealed that current AL websites are poor in offering IL.

DL stakeholders' perspectives on IL were explored. For instance, many distance learners agreed that they have had no previous training in using academic libraries and their services. Some distance learners have completely ignored the existence of their university libraries in their studies. They believed that all support and services, including academic libraries, were designed to support on-campus users only and nothing had been mentioned about their right to use them. This ignorance is not only unique to academic libraries, but is also applicable to other forms of support and could be very damaging to any attempts to improve the quality of DL, as well as being responsible for the current dissatisfaction of many learners and other managers with this kind of education. The common feeling of DL stakeholders, as well as managers, about current academic libraries and their services, including IL for DL, is negative. Hence, academic libraries are neglecting their role in training DL stakeholders. As a result, academic libraries could miss an important tool in marketing their services to many users, including DL stakeholders. Ibrahim (2009), in her study of IL among female students at IMBSIU, similarly suggested that some students are still lacking the necessary IL skills, such as using and finding information.

The quantitative results raised questions about why a small percentage of DL stakeholders knew about training programmes and not the rest, especially since it was found that 33.7% of the DL stakeholders were unable to decide what their response to this question should be. This could be due to the fact that some participants might have no knowledge of academic libraries and their services, including IL programmes. Leaving DL stakeholders without information about the existence of academic libraries and their services, including the availability of IL programmes, can be very damaging for the Saudi government's current initiatives to develop and improve the quality of Saudi DL. This problem could be the responsibility of both academic libraries and DL deanships.

In addition, the study results indicated an association between the habit of using the Internet and the use of academic libraries in SA. For instance, it was discovered that the Internet has badly affected the use of current academic libraries and their resources, with many students and academics relying on unreliable information published on the Internet and ignoring information resources available in academic libraries. The effect of the Internet has been considered clearly in the "Information Services Model" designed by Hunter, Clarke and Shoebridge (2005, p.67) when they stated: "…a well designed information resources services should reduce the trend for tutors and students to use less reliable Internet resources". A lack

of good training programmes, in combination with too many resources and too many tools found on the Internet, is blamed for the low use of many resources available in academic libraries. It was discovered that the lack of searching skills of many distance learners is seen by them as an historical problem shared by public education, families and universities. Hence, homes, schools, universities and libraries seem to be blamed for causing this problem because they seem not to train/educate people to read, use libraries, write assignments, and so on.

In addition, it was discovered that current Information Science Departments (ISDs) located at the case study universities or at KSU are not offering courses that can help future librarians to understand and design new information services suitable for DL stakeholders. This result was discovered to be one of the reasons for current academic libraries failing to acknowledge the rights of DL stakeholders to be served. On- and off-line resources are becoming popular in academic libraries to support their users so knowing how to use them is vital. Results also obtained from a number of ISD heads commented on their departments' role in developing their students' knowledge in dealing with e-resources and IT, and their importance in supporting other users, such as DL stakeholders. The results demonstrate that many of them believed that no modules had been offered to address the needs of DL stakeholders to learn and use information resources.

This study's results indicated that current DL stakeholders lack adequate support, including IL. Hence, discovering DL stakeholders' attitudes towards appropriate IL programmes that could be used could be beneficial in facilitating the future application of IL. For instance, it was found that DL stakeholders are in favour of being skilled in using the Internet to search resources and other information suitable for their needs. In addition, offering guidelines and step-by-step directions in using and searching databases and other e-resources, was considered by participants to be very important; it was thought this should be delivered by libraries' websites. Moreover, offering training and workshops concerned with improving stakeholders' ability to complete exams and to write assignments and papers was discovered to be very important. This could support them with further knowledge and skills in searching and allocating useful information by themselves; it could also contribute to their own development. However, these programmes should be offered by any means possible including face–to-face, at a distance through the Internet, video tapes/DVDs/CDs, handouts and library tours.

Indeed, raising the awareness of the existence of the AL in the mind of DL stakeholders, through well-designed IL, can be very useful in marketing AL services. This could encourage academic libraries to improve their services to meet all users' needs, including DL stakeholders. In short, according to the study's findings, offering well-designed IL in each AL would be very helpful as it would:

- Allow DL stakeholders to know their libraries very well;

- Be a way to find more details about the availability of an AL's services and resources;

- Be a tool that can help DL stakeholders discover the existence of academic libraries and their role in serving them;

- Help to attract more DL stakeholders and so pay back the money and efforts that have been invested in these libraries. The payback can be seen in the development of DL stakeholders, and the improved quality of graduates;

- Develop DL stakeholders' understanding of information services and the resources available;

- Improve DL stakeholders' abilities to use information services and resources;

- Advise DL stakeholders on how to select appropriate information;

- Overcome any obstacles they may face in using AL services and resources.

However, information literacy programmes should not be as Hepworth and Walton (2009, p.116) describe:

> Unfortunately, the learning institutions and even some academics have not fully understood the nature of information literacy or the role it plays in learning and becoming a member of a profession. This has tended to lead to short, discrete slots being assigned to information literacy, which generally only provide enough time to demonstrate information resources in isolation from the wider learning context. As a result, these interventions tend to focus on the features rather than the benefits of the resource.

In addition, certain training techniques were seen as more useful and reliable in training DL stakeholders, such as offering face-to-face training or by introducing web-based tutorials. For instance, it should be noted that the training method ranked as the most effective according to DL instructors, was the use of AL websites with web-based IL (27.7%), followed by library tours and tutorials. This result shows the importance of using AL websites more as a way of training and as an informative tool that users could consult and use to learn about the services and resources available in their academic libraries, as well as the best way to acquire information. This result is supported by Tang (2000, p.98) when he discovered that China's academic libraries responded to DL by creating websites with several services. Furthermore, having analysed the results from distance learners, it was discovered that many respondents

(45.7%) believed that face-to-face training was the most satisfactory method. This method was found to be employed at the beginning of each semester, especially at KAU academic library, or whenever a need arose. This method could be useful for distance learners who may have physical access to academic libraries or for those who are usually paid by their employer to attend these face-to-face training sessions.

These findings would help information services planners in academic libraries to consider the training methods that could meet the needs of DL stakeholders. Overall, the survey analysis results obtained from both DL instructors and learners showed that the best methods for training DL stakeholders were ranked as follows:

4. Web-based training course/tour;
5. One-to-one training;
6. Printed manuals.

However, current academic libraries' weakness in offering reliable IL in using academic libraries was found to be the second highest factor that negatively affected the DL instructors' use of their AL. In relation to this result, interviewees also mentioned the weakness of the IL offered by academic libraries. For example, there were no well-designed and scheduled programmes in academic libraries included in this study. This result is supported by Al-Saleme (2008).

7.3.4 Copyright Law

One of the difficult issues facing universities worldwide are monitoring copyright law and knowing how not to abuse it. In this study, the effect of copyright law on providing reliable information services for distance learners was discovered to be one of the problems currently facing academic libraries. For instance, academic librarians have the responsibility to ensure that users do not to copy more than is allowed. Failing to monitor this rule could be used to prosecute academic libraries. This factor was blamed for not satisfying users' needs, especially those of distance learners who were not offered full information services and so remained unserved when they often require complete copies of resources. Khan (2004, p.37) in his e-learning P3 model advised libraries to negotiate "[…] permission to use copyrighted materials including articles, books chapters, videos, music, animations, graphics, Web pages, etc., from copyright holders".

With the rapid growth of e-resources, as well as digitisation technologies, academic libraries could overcome this obstacle and serve all their users properly by subscribing to multi-user

licenses. However, even with full availability of some e-resources currently available in academic libraries, they are usually in English and so are still not satisfying the needs of those who lack skills in English or in using IT. In addition, the current lack of Arabic e-resources through the Internet is disappointing. The weakness of in-house digitisation projects, despite the increases in AL budgets, can also be blamed for failing to properly serve users. Academic libraries have just started several digitisation projects that can help in tackling this problem and offer distance users the freedom to have full access to full-text resources, especially in Arabic. This could be supported by:

- Requesting Arabic publishers to produce a digitised version of any book, journal and document they publish. This could help academic libraries to spread these publications among their users without raising legal issues;

- Improving the digitisation projects currently used in the academic libraries included in this study to cover many resources such as textbooks in Arabic. Academic libraries should use budgets wisely to meet this target;

- Improving AL services such as inter-library loans, document delivery and remote access to databases;

- Building the necessary cooperation and consortia involving academic libraries in SA, within the GCC countries or even within the Arabic world.

In relation to copyright law in cyberspace, monitoring database usage is becoming very important. For instance, as this study found many on-campus instructors and learners were discovered abusing their rights to access databases by downloading too much information and also by passing their passwords to others who may be outside the country, which is against copyright law. This factor was found to be responsible for postponing online services for DL stakeholders. This factor was seen by Hines (2006, pp 217-218) as a concern for faculties using DL, and librarians should provide the guidelines to overcome this problem. He also believed that copyright in general poses a challenge both in the classroom and DL. In addition, Edwards and Walton (2000, p.205) agreed with this result by saying "the copyright legislation limits flexibility". However, this factor has been used as another reason for limiting on-campus access to online databases and in the future could affect e-services for distance learners.

7.3.5 Cooperation between the Academic Library and DL

A general discussion of cooperation among Saudi academic libraries was given in 7.2.2.8; this outlined the complete lack of cooperation between academic libraries and DL in both

universities. For instance, there was no coordination when subscribing to databases and other resources which has caused a duplication of effort and waste of resources in terms of both money and time. A lack of cooperation in this sector has meant distance learners missing the chance of using AL services. This has also led current academic libraries to treat distance learners as outsiders in their own universities and to ignore completely their rights, especially for learners, to use the library on equal terms with those studying on campus. The lack of guidelines and policies related to cooperation between both DL deanships and academic libraries has been partly responsible for DL stakeholders' right to use academic libraries being ignored and/or unrecognised. The continuous absence of academic libraries and their services from DL raises questions regarding the current and future cooperation between academic libraries and DL. For instance, 61.1% of instructors were not advised and guided by the DL deanship to use their AL or to advise their learners to do so. As a result, 44.3% of learners were found neither to be advised nor directed to use academic libraries, which could be harmful to the quality of education provided through DL. These findings could provide a partial explanation why distance learners achieve lower levels of success than on-campus students.

The study's findings also show that academic libraries were completely excluded from participating in the processes of planning, running and offering DL in universities, even with the establishment of new DL deanships and the implementation of e-learning in both universities. The evidence suggests that AL deanships have failed to mention the rights of DL stakeholders to gain full access to the AL's resources and even to borrow books without conditions. A lack of cooperation between academic libraries and DL deanships could be the reason for not recognising or omitting the DL stakeholders' needs for information services and resources and could be partly responsible for learners' dissatisfaction with the system. For instance, results showed that there was a division between many instructors and learners regarding the availability of DL regulations regarding AL, which may confirm a lack of cooperation between academic libraries and DL deanships, possibly because of the lack of clear and straightforward guidelines for DL stakeholders from both academic libraries and DL deanships. So, including the role of academic libraries in DL guidelines must be considered and *vice versa*. For instance, failing to require distance learners to carry out assignments and private study that could encourage their use of academic libraries could result from the lack of cooperation between academic libraries and DL deanships. This result was obtained by noting, in the questionnaires, the failure of many distance learners to provide

positive answers concerning the existing AL resources and services. For instance, 59.7% of the distance learners agreed that no special support had been designed or offered by their AL. This result is similar to the result obtained from their instructors, which strongly shows the lack of information provision for DL stakeholders. This result also reinforces the qualitative results.

In addition, DL stakeholders, especially learners, stressed their right as students in the university to be treated and served equally. To make this meaningful, cooperation between academic libraries and the DL deanships in each university must be put in place rapidly to prevent a number of unexpected negative results as discovered by this study, including:

1. The continuous neglect of DL stakeholders' rights to be supported with all the appropriate information services and resources needed for their studies;

2. Duplication in providing information services when, for example, one of the DL deanships decided to set up an independent e-library containing online resources already available in the academic library;

3. DL stakeholders, especially distance learners, could lose their right to use the academic libraries and their services when duplicate information services were found in the DL deanships' e-library and the academic libraries' services;

4. Money and effort could be wasted by duplication of effort, especially when the economy is weak;

5. Poor professional practice in not providing information services, especially with the lack of skilled librarians as discovered by this study, when the DL deanships attempts to support and serve their learners with information services which should really be the responsibility of academic libraries.

Furthermore, it is worthy of mention that this study discovered that there is neither formal nor informal cooperation between DL deanships and academic libraries in both universities. This conclusion shows a mistake made by one of the DL deans when he claimed to have a relationship with the AL of which the AL seemed unaware. The lack of cooperation between DL and AL deanships emphasises a lack of cooperation at several levels with the following characteristics:

1. Cooperation between AL and DL deanships is still not defined and recognised;

2. The recent creation of an independent e-library by DL deanships clearly indicates the absence of cooperation with academic libraries;

3. The answers obtained from the AL managers showed that cooperation with the DL deanships does not exist;

4. The current absence of cooperation could be related to practices in the university administration systems where there is limited or no support for building the necessary relationships between departments. Hence, cooperation should be ensured as suggested by the report of the University of Illinois (2007).

Even though cooperation between DLs and the academic libraries was lacking, the feeling from this study was that the AL and DL deanships were willing and welcomed the idea of embarking upon the necessary cooperation in order to serve each other and provide equity in the provision of information services to all DL stakeholders. This is supported by a finding from Hines (2006). This cooperation, as investigated and discussed above, will not exist unless university administrations make the necessary changes to make such cooperation effective. Hence, instructors felt that the academic libraries must be supported by university administrations in order to carry out their tasks appropriately. In this case, respondents emphasised that universities offering DL should not only have the ethical responsibility for providing the necessary information services support, but also they should support their academic libraries in providing good quality services for all users, including DL stakeholders.

Successful cooperation between academic libraries and DL, as seen by instructors, is related to the importance of standardising all information services offered by academic libraries to support DL. These standards must be set in line with the existing international standards mentioned in the literature review (ACRL; The Canadian Library Association; CAUL; The Indian Library Association). This finding should encourage all those involved in planning and designing future information services for DL stakeholders to consider the existing standards and guidelines, which could be very helpful in designing complete and useful information services. Hence, building up cooperation between DL and AL is a key factor in supporting DL stakeholders. Thus, omitting this kind of cooperation could be damaging for pedagogical elements. Hence, DL deanships should be able to foster formal cooperation with the AL deanships and build up the necessary relationships. This cooperation, as discovered, could provide many advantages, as follows:

1. Free the DL deanship from getting involved in a business which is the responsibility of AL staff with the appropriate professional background;

2. Avoid duplication and save costs and time;

3. Strengthen the DL stakeholders' loyalty to their AL;

4. Resources and services that are already available in the AL, such as textbooks for courses taught by DL, are similar to those taught on campus and cooperation could elevate and improve these services and resources for DL stakeholders;

5. The AL should have the experience and the facilities to support users, including the DL stakeholders for whom it has the responsibility to provide a service;

6. It would encourage the AL to support all its users, including distance stakeholders, so that no category of user is neglected;

7. It could help the AL to obtain the necessary resources, support and recognition from the university's administration when its role should be extended to serve all users, including DL stakeholders;

8. DL deanships could support the right of academic libraries to gain more resources and more support to provide the necessary information services;

9. Unity and equality could be achieved by promoting such cooperation.

In conclusion, cooperation that involved academic libraries, DL deanships and ICT centres was not particularly evident in this study. Hence, it was found that there was no relationship among the three departments in each university in order to serve DL remotely with all the information services that are available in academic libraries. So, cooperation between ICT centres, academic libraries and the DL deanships, together even with the current e-learning applications, were lacking; this could lead to the continuing omission of distance learners' right to be supported and served.

7.3.6 Other Specific Issues Related to the Academic Library in Relation to DL

7.3.6.1 Attitudes to the Role of the Academic Library in Saudi DL

There was general agreement among all the interviewees regarding the important role of academic libraries in supporting DL. One example was providing ILs, which was identified as one of the academic libraries' most important tasks. This result is supported by the Hitch and MacBrayne model (2003). They claimed that IL is very important and should be offered by DL. According to some interviewees, the academic libraries' role should be extended to include DL stakeholders, especially learners, for several reasons:

- DL stakeholders are one segment of the university population;

- They may live far away from the campus;

- Information literacy, as well as other information services, is very important to improve DL stakeholders' knowledge and skills and to make them more independent learners;

- They need more resources as they are considered as self-learners;

- The era of being heavily dependent on textbooks in teaching and learning is rightly coming to an end;

- The AL and its services and resources are an important factor in improving the productivity and quality of teaching and learning.

These positive attitudes expressed by many participants, especially at managerial level, are promising and could encourage the development and strengthening of the relationship between academic libraries and DL.

In addition, there was an agreement among most interviewees about the important role of the AL in supporting DL, even though special information services had not been planned to support DL. Hence, despite the current trend among the universities included in this study to convert traditional DL to become fully e-learning, no support has been planned by academic libraries for several reasons. For instance, according to the administrative view, there was little cooperation, coordination and formal communication between AL and DL deanships. Hence, academic libraries are not currently offering this support. This has caused many DL stakeholders to be excluded from being served and recognised by their academic libraries and this may continue. In addition, several factors were found to be behind this absence of AL services to support DL. These factors are:

- DL rules and guidelines still do not encourage, or even advise, learners to use the AL;
- The Internet has negatively replaced the role of the AL in supporting many users;
- Other information resources are often ignored when supporting distance learners, as text books are considered to be their main resource;
- Academic libraries' policies still omit the right of distance learners to use library services;
- Shortages of staff, combined with a lack of IT skills in some academic libraries.

Hence, this study discovered that DL stakeholders' attitudes towards the current role of academic libraries in supporting their needs are very negative, for the following reasons:

- The AL role was seen as helping on-campus users almost exclusively;
- There were no defined information services to support distance learners;

- Lack of Arabic e-resources;
- Lack of the most advanced IT in libraries designed for DL;
- Lack of the necessary skills in allocating information and dealing with IT;
- Lack of IL programmes to explain the use of AL services;
- Academic libraries are still denying DL stakeholders' rights, especially learners, to have remote access to library resources.

In addition, several statements were designed to define the future role of academic libraries in supporting DL. These statements were tested by interviewing key figures in HE. It was initially discovered that integrating the AL's services into DL would not be achieved unless rules and guidelines were created to force libraries to acknowledge DL stakeholders' right to be served. For example, it was found that managers, including AL managers, acknowledged the importance of extending academic libraries' information services to more users, including distance learners. Hence, many participants acknowledged academic libraries and their role as an important partner in offering, administering and supporting DL now and in the future. Instructors believed that academic libraries should improve their ICT infrastructure first, in order to provide high-quality services. This finding shows the strong support by DL instructors for the implementation of more ICT in academic libraries. Thus, it can help them to have easy access, in the future, to all information resources and services available. This could be linked to the overall desire of library mangers to establish an independent ICT department in each AL and equip it with qualified staff and appropriate resources.

Investigating distance learners' attitude to DL and the future role of academic libraries is also very important when deciding the future implementation of information services. However, what this study has found is that, for the reasons below, DL is not currently satisfying the learners' needs and is rarely achieving the government's plans:

1. It is hard for many graduates to find jobs within government;
2. Private and public sectors rarely welcome graduates who have studied by DL;
3. Lack of formal interaction between DL stakeholders;
4. DL focuses on theoretical studies;
5. Failure to implement IT, especially the Internet;
6. Inequality between on- and off-campus learners;
7. The continuous dependence on textbooks as a tool of learning;
8. Treating distance learners as outsiders in their own universities, including the AL;

9. Lack of clear rules, policies and guidelines;

10. Failing to implement information provision, leaving DL stakeholders without proper support from academic libraries;

11. Often, distance learners, especially females, struggle to find resources for their studies; this is supported by an interview with some female instructors participating in a conference about HE for girls and published in Al-Watan newspaper. They were asked about challenges currently facing female students in Saudi HE, including distance learners. One of them said: "We hope that more consideration should be directed to the quality of higher education instead of quantity. For instance, create comprehensive digital libraries and link them with all universities' websites which should include Arabic and international journals and resources related to female students' studies. Nevertheless, extending libraries and universities opening time must be applied" (Al-Jowhany 2010). This is also supported by Sharifabadi (2006);

12. The high drop-out rate from DL.

These indicators were developed through analysing problems in DL. Many distance learners believed that efforts in studying in this kind of education depend heavily (100%) on learners whilst the quality of achievement in this kind of education is still questionable. Overall, their attitude was found to be slightly different from those of instructors. They believed that academic libraries in future should focus on extending their information services to include DL. In addition, according to learners, academic libraries should provide IL to meet users' needs.

In short, the overall results showed that distance instructors' and learners' attitudes and expectations about the future role of academic libraries in supporting DL are positive. This agreement could be used as a tool for speeding up the planning and designing of this support.

7.3.6.2 Current and Future Information Services to Support DL Stakeholders

An important part of this research was to examine and evaluate the existing information services that might be used to support DL. This examination could help in deciding the current and future implementation of information services in serving DL. Therefore, several opinions were gathered from different participants including managers, instructors and learners. However, a common attitude was identified regarding the importance of understanding DL. For instance, adopting international standards and guidelines in supporting DL, as mentioned in the literature review, should guarantee DL stakeholders' right to be fully

supported; this should guarantee them remote access to libraries' resources and services. However, these solutions/services offered by participants were criticised by library managers and staff who claimed they were cautious about distance learners having remote access to the library system, including all information databases, due to the security and copyright problems discussed above. Hence, the findings of this study highlighted several important information services that should be made available for DL. This mainly includes providing remote access to information services and offering and providing formal IL, which was found to be necessary as it works in three ways, according to participants:

* As a tool to publicise academic libraries services to DL stakeholders;
* Helps DL stakeholders to find and evaluate easily the information they get;
* Provides support for distance learners.

However, there is no doubt that the findings showed the strong agreement of all participants about the DL stakeholders' right to have full access to all information services available in academic libraries. This is supported by Tunon and Ramirez (2004, p.497) who concluded that librarians have strong incentives to provide free access to information services and resources. In addition, Stockham and Turtle (2004, p.447) supported this result by emphasising the importance of remote access to e-resources and full-text journal articles for distance learners. This means giving equal access to all library users, including those off-campus, which was also supported by Tunon and Ramirez (2004, p.497). The most important services that should be made available to DL students were also determined. These include access to online databases from outside, creating a call centre for DL stakeholders in each AL, IL, online reference services, current awareness, borrowing books and providing well-designed web pages with all services being accessible. Table 7.1 summarises information services that were suggested by managers, as well as by DL stakeholders. Hence, most of these services should be considered when planning and designing the information services to support DL.

Table 7.1: Information Services as Suggested in Interviews with Managers and DL Stakeholders

Information Services (ISs)	*Managers*	*DL stakeholders*
Full access to all information services including online databases 24/7.	√	√
All traditional information services.	√	√
English language translation service in the academic library.	√	√
Information literacy.	√	√
Study skills guidelines.	√	X
Exam skills guidelines.	√	X
Interactive library webpage.	√	√
Borrowing an unlimited number of books on extended loan.	√	√
Online services such as renewing books, books reservations, virtual reference desk, and virtual tour of the library.	√	X
Effective communication tools (mail, e-mail, fax, telephone…etc).	√	√
Call information services centre at each academic library.	√	√
"Ask Librarian" throughout the web.	√	X
Document delivery.	√	√
Establish a special telephone with qualified staff in the library to receive DL stakeholders' questions and enquiries.	√	X
Book reservation.	√	√
Technical support.	√	X
Writing skills guidelines.	√	X
Reading techniques guidelines.	√	X
Marketing techniques to attract DL stakeholders.	√	√
Have qualified librarian to satisfy DL stakeholders' needs.	√	√
Free access to all digitised library collections including e-books.	√	√
Cooperation with other universities to allow distance learners to use their academic libraries' services.	√	√
Copy material services.	√	√
A toll-free telephone number to answer distance learners' questions.	√	√
Answering machine in the library to direct learners through to library departments.	√	X
Mobile text messages about IS or current awareness available in the AL.	√	X
Provide reliable recall book services for borrowed books.	X	√
Building a portal for all open resources	X	√
Subscribe to Arabic resources available on the Internet.	X	√
Improve current copy services.	X	√
Provide remote copy service and set its rules.	X	√
Inter-library loan.	√	√
Train librarians to deal with users, including DL stakeholders.	√	√
Reform library policy to include distance learners.	√	√

√ **Considered (mentioned)**
X **Not considered (not mentioned)**

7.3.6.3 Reasons for Using Information Resources

Investigating DL stakeholders' habits in using information resources helped to demonstrate their reasons for using them and in deciding the kind of information resources and services that should be suggested. In addition, understanding users' habits could help planners in academic libraries and in DL deanships to decide the best information resources to suit their users. Results showed that 51.7% of the distance instructors used information resources to

support their current teaching. The reason ranked second (48.4%) was to keep up-to-date with new information. This result showed that many instructors are sufficiently interested to widen their knowledge and to keep up-to-date. This could have a positive impact on the quality of teaching. Overall results showed that instructors are less disposed to use resources for their own leisure (12.4%). This result seems natural as the main aim of instructors is to concentrate on supporting their own teaching and research, which encourages academic libraries to act responsibly to satisfy the first two reasons.

On the other hand, results showed that learners seem to acquire resources for the purpose of keeping up-to-date with new information related to their studies, with 48.6% agreeing. This result proves that the current practice of DL depends on textbooks as the main sources of information but this is unsatisfactory for learners. For instance, academic libraries are experiencing shortages of textbooks along with stocks of old information resources that they are unable to update. This could encourage some learners to search other resources that can replace textbooks or make them more understandable. In addition, it can be concluded that the results show that distance learners have demonstrated their desire to keep up-to-date with information related to their studies. As a result, academic libraries and DL deanships must plan initiatives to meet learners' needs for information to support their current learning. In addition, finding that most DL stakeholders wanted to support their teaching and studying could motivate academic libraries and DL deanships to work hard towards meeting this desire through designing the necessary information services.

7.3.6.4 Types of Resources Used by DL Stakeholders

Fully understanding the current preferences of DL stakeholders for the types of information resources they prefer to use to carry out their teaching and learning at a distance can be very important when considering the information services and resources needed to satisfy their needs. Overall, results proved the continuing importance of printed resources, as well as e-resources, in supporting them. It should be mentioned that quantitative findings comparing printed resources and e-resources proved that, among DL instructors and learners, use of e-resources is still quite low compared to the use of printed resources.

7.3.6.5 The Best Methods to Deliver Information Services for DL Stakeholders

In conjunction with the current and future plans and policies of academic libraries in serving DL stakeholders, deciding the best method for supporting them with all information services

in the future is very important. For instance, participants generally agreed that implementing the Internet to serve and link all academic library users, including DL stakeholders, should become a priority. This method/model should be implemented not only by academic libraries themselves, but also with the necessary cooperation of DL deanships. Implementing the Internet in serving DL could be heavily dependent on strengthening and developing current AL websites to include all information services, including the most important one for DL: remote access to information resources. Thus, there was a general acceptance within the study of the importance of implementing the Internet to deliver and serve DL. In addition, offering comprehensive AL websites was highlighted, as discussed above, as a way to provide services for all users, including those involved in remote studies. In fact, *The CITC Report* (2008, p.17) supports this finding. However, this result does not represent many DL stakeholders as some of them have problems dealing with ICT or experience unreliable Internet connections in their home area.

However, the results discussed previously confirm that current academic libraries and DL deanships are not playing their role in supporting DL. Thus, current distance learners are left without the necessary reading materials needed for their courses, especially Arabic resources. Although it should be acknowledged that the DL deanship at KAU has just established its own e-library, which should support DL stakeholders, the existing distance learners are excluded from using it as it is only designed to serve new programmes offered through the e-learning mode. Moreover, its contents continue to be mostly limited to foreign language resources, which make it very hard for many DL stakeholders to gain full benefit from it. In addition, the current Internet infrastructure in the country is limiting the spread of its benefits. As a result, dependence on the current ICT infrastructure to deliver the necessary information services to all DL stakeholders could be very risky according to this study.

7.3.6.6 Implementation of Information Services to Support DL

An important investigation in this study focused on gaining participants' opinions regarding the best practices to support and serve DL with information services. The alternative models/ solutions are listed in Chapters 5 and 6. Having analysed the responses from interviewees, the results favour, by a high majority, is the decentralisation method of supporting DL stakeholders with all information services. According to this option, each individual AL would be responsible for providing and supporting their DL stakeholders with all the information services they require. For instance, each academic library should be fully responsible for supporting their DL stakeholders and treating them as equals to those who

study on-campus. This option, if agreed, would help academic libraries to acquire more resources and support from university administrations and so strengthen their position within HE, as well as solving their current problems, which prevent them serving DL stakeholders.

The second most preferred option was a "middle-of-the-road" solution, between centralisation and decentralisation. This option involves establishing a consortium of all Saudi academic libraries to provide all the information services needed for DL. This option was discovered to be very useful for several reasons:

- It is cost effective when sharing resources and services;
- Distance learners are usually distributed all over the country, as are universities, so distance learners can have easy access to other academic libraries in the areas where they live;
- It provides an alternative solution at a time when ICT infrastructure in the country is still weak and access to the Internet in some parts of SA is limited;
- According to the study's findings, it is impossible at this moment to establish strong and well-designed information services using the Internet, due to the current weaknesses in AL websites and the ICT infrastructure in universities and in the country.

Therefore, allowing users to visit and use other academic libraries physically or remotely by setting up a consortium is a first-step solution as illustrated in Figure 7.12 .

Figure 7.12: Consortium of Saudi Academic Libraries in Serving and Supporting DL Stakeholders

The third preferred alternative favoured centralisation. This solution could be useful if adapted according to the research findings, for several reasons:

- Recently, the MHE has established a professional centre to help and support the practice of DL and e-learning in SA and this centre could be the first attempt to foster centralised information services;

- One of the current objectives of the new centre at the MHE, as discovered by this study, is to support existing and future DL with all information resources and services;

- Current and imminent AL conditions are not promising to provide special information services for DL stakeholders;

- The current absence of cooperation between academic libraries in SA and between academic libraries and DL deanships, will hinder both the application of decentralised information services, designed by academic libraries to serve DL stakeholders, and the process of achieving any consortium;

- The continuing failure of university administrations to support and develop academic libraries will not allow them to extend the necessary information services support to DL stakeholders.

Hence, a centralised model as illustrated above in Figure 7.2, according to this study, could be adopted and the National Centre for e-learning and DL in the MHE, could undertake an initiative to build information services support for all DL stakeholders in the country. Centralisation was supported by Hitch and MacBrayne's model (2003) in which they insisted on providing an around-the-clock call centre to support all distance learners. However, the centralised model was found to be the preferred option among DL instructors and learners, as discussed above in 7.2.2.8.1, due to the benefits that can be expected as many existing universities are struggling to act in this matter and serve their on-campus users properly. So, implementing centralised information services could be used as a tool to encourage current academic libraries to improve their services and extend their support to all users, including DL stakeholders. This model could involve existing academic libraries by enhancing the interlibrary loan services between these libraries as the central model could concentrate mainly on offering e-resources/services. Hence, academic libraries could work hard to improve their current services and provide new services that could support all users, including DL stakeholders, whilst sharing their collections with others. A similar model was supported by Ghosh *et al.* (2006, p.617) in India.

On the other hand, centralisation was seen by others in this study as risky and damaging. They believed that the centralisation of information services in HE could weaken competition and innovation among universities and their academic libraries in providing the necessary information services to their users, including DL stakeholders. In short, quantitatively visualising the final comparison between participants' views regarding their attitude towards many solutions/models could be very useful in understanding this discussion, as illustrated in Table 7.2.

Table 7.2: Alternative Models for Delivering Information Services to Support DL from a Managerial Perspective (Interviewees)

No.	Model	Number of agreements (Agree and Strongly agree)	Rank
1	AL should be able to extend its services for all of its users, including DL learners.	18	1
4	A consortium of Saudi academic libraries should provide all information services needed for DL.	16	2
6	The National Centre for e-learning and DL in the MHE should have the responsibility to support distance learners with all the information services they need by creating a centralised information services centre.	14	3
5	The Deanship of DL in each university should create its own electronic library to support its stakeholders.	10	4
2	AL should hire an external information services provider in order to fulfil DL learners' needs.	6	5
3	The current services provided by the AL are satisfying DL learners' needs.	3	6

In addition, the questionnaires enabled DL stakeholders to rank the most useful alternative solutions/models that might be implemented to provide the necessary information services support for DL stakeholders, as illustrated in Table 7.3. However, it should be mentioned that the differences between instructors' and learners' solutions/models are very small. This might reflect the need of DL stakeholders to have easy access to information services and resources by any means.

Table 7.3: Alternative Models for Delivering Information Services to Support DL According to DL Stakeholders

No.	Model	Number of agreements (Agree and Strongly agree)			
		Instructors (n)	Rank	Learners (n)	Rank
1	The National Centre for e-learning and DL in the MHE should have the responsibility to support distance learners with all the information services they need by creating a centralised information services centre.	112	1	317	1
2	The Deanship of DL in each university should create its own electronic library to support its stakeholders.	111	2	310	2
3	A consortium of Saudi academic libraries should provide all information services needed for DL.	109	3	270	4
4	AL should be able to extend its services for all of its users, including DL learners.	107	4	280	3
5	AL should hire an external information services provider in order to fulfil DL learners' needs.	88	5	222	5
6	The current services provided by the AL are satisfying DL learners' needs.	18	6	109	6

Hence, the majority of DL stakeholders, according to results illustrated in Table 7.3, put in first place a centralised model in which the National Centre for e-learning and DL in the MHE would have the responsibility for supporting DL stakeholders with all the information services they need. This preference could be a response to the current dissatisfaction felt by DL stakeholders with the existing AL services, which are currently unable to recognise and satisfy their needs.

However, the first preference of interviewees who work in a managerial position, as illustrated in Table 7.2, was the decentralised model, where each AL has the responsibility to support its users, including distance learners as illustrated above in Figure 7.1. Hence, the managers opposed the views of DL stakeholders in this matter. It is thought that managers in universities might be more aware of the internal system and the weakness of existing cooperation within, and among, universities where centralisation has not been successful. Alternatively, they might be wary that they could not maintain their power. Hence, they preferred a decentralised support for IS, where academic libraries are fully responsible for providing the information support for their DL. In addition, it might be that managers believed, from experience, that it is very hard to isolate academic libraries from supporting their users, including distance learners, which could cause them to lose budgets and staff. Furthermore, managers might believe that it would be very difficult, at this stage, to have a centralised information services support for DL in the country due to several issues, including the weakness of ICT infrastructure which could be overwhelmed with traffic from and to the planned centre. Thus, a heavy load of requests, which a centralised system might face, could be a negative factor in centralisation. In addition, the expected absence of DL stakeholders' commitment and loyalty towards their universities might occur.

Furthermore, DL stakeholders thought about the second alternative solution/model that could be used to support their information needs. This model as illustrated in Figure 7.13 involves the deanship of DL in each university creating its own e-library to support DL. The use of an e-library in DL is also recommended by Sharifabadi (2006). This alternative model, side-by-side with the centralised model, could result from the frustration of current DL stakeholders and their negative attitudes towards their academic libraries. In fact, this result illustrates again the current failure of academic libraries and raises doubts about their current and future, information services support. In fact, DL stakeholders were found to be less optimistic about

the abilities of academic libraries in the future to support them with effective information services and resources.
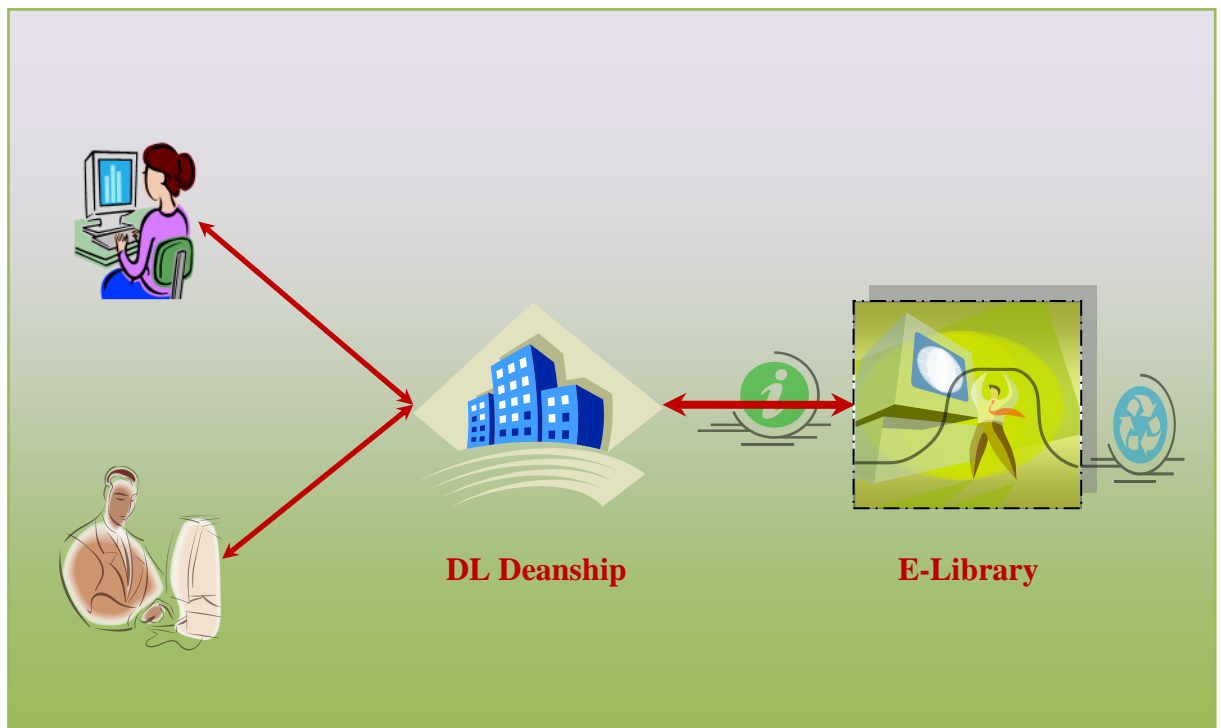
Figure 7.13: Representation of an e-library to support DL stakeholders

The other alternative model that could be used to support DL with all information services and resources, and was ranked by instructors as the third option, was the model that suggested establishing a consortium of all Saudi academic libraries. This consortium could provide the information services needed by distance learners anywhere in the country where academic libraries exist quickly with less effort. However, the managerial view placed this model in second place but, in fact, this option could be used as a middle alternative from among all the models, where it can recognise the role of academic libraries and the right of DL stakeholders to be supported. Moreover, it could satisfy DL stakeholders with less effort, time and cost. This model is supported by Hitch and MacBrayne (2003). However, distance learners placed the consortium model as the fourth method which might best serve them and their needs.

It should be mentioned that, according to this study, there are already two existing consortia of Saudi academic libraries but these are having some problems and are struggling to survive. These are:

- The inter-library loan consortium, where some academic libraries and some special libraries have agreed to establish their own inter-library loan services. This service, as

discovered, was found to be almost non-existent, possibly due to the weakness of its rules, monitoring, commitment and control.

- The online/databases subscription consortium, where academic libraries participate in subscribing to online databases as a group; this was considered to reduce costs and paperwork. However, this consortium is having some difficulties due to the lack of rules, monitoring and control. This was supported by Al-Omran (2004). For example, it was discovered that each library has the right to subscribe individually to any database they might need, which reduces the benefits of this consortium. In addition, there is poor agreement among many academic libraries with regards to the library that should have the responsibility for managing and maintaining this consortium. Hence, there is some disquiet and a lack of satisfaction among the libraries. Similar to SA, India, as a developing country, has experienced building consortia among its academic libraries and is still facing difficulties similar to those discovered in SA (Ghosh *et al.*, 2006).

The fourth alternative model (less desirable) that instructors believed could be implemented is a decentralised model where academic libraries should be able to serve their users, including DL stakeholders. Hence, instructors who are close to the academic libraries, and who are considered better informed about them, may believe that some current academic libraries, such as the IMBSIU and KAU libraries, have the necessary features that can be used to support DL stakeholders, such as:

- Well-designed buildings, especially at IMBSIU;
- Suitable ICT infrastructure which can be easily improved, especially at IMBSIU;
- Ongoing digitisation projects at both libraries;
- The creation of DL and e-learning deanships in both universities;
- The availability of ISD in each university included in this study.

So, this model and the consortium model are shown to be moderate alternatives to the other models. Hence, it should be the natural, practical model to be implemented by any university which offers DL; this is currently not the situation in SA.

However, distance learners have placed this model, where current academic libraries should be able to extend their services to support their users, including DL stakeholders, as their third choice. In fact, this model, if adopted, would involve academic libraries recognising the right

of DL stakeholders to have services equal to those offered to on-campus users. Distance learners, by placing this model third, have a strong expectation of their academic libraries. Hence, academic libraries should work hard to meet distance learners' expectations of them as soon as possible. This could end the era where DL stakeholders have been completely dismissed and poorly served.

The fifth alternative model, which seemed to be less desirable to both distance instructors and learners, was that academic libraries should hire an external IS provider in order to fulfil DL stakeholders' needs. This option as illustrated in Figure 7.14 was perhaps ranked as less desirable as it could be unreliable and costly. The reason for this option being considered less desirable by instructors is due to the external providers having most of their resources in foreign languages and being unable to fully support and satisfy current DL curricula, especially remembering the weaknesses of many DL stakeholders in dealing with foreign languages, such as English. In addition, external providers mostly depend on the Internet. This is problematic, due to problems of availability and the high cost of the services discussed above.
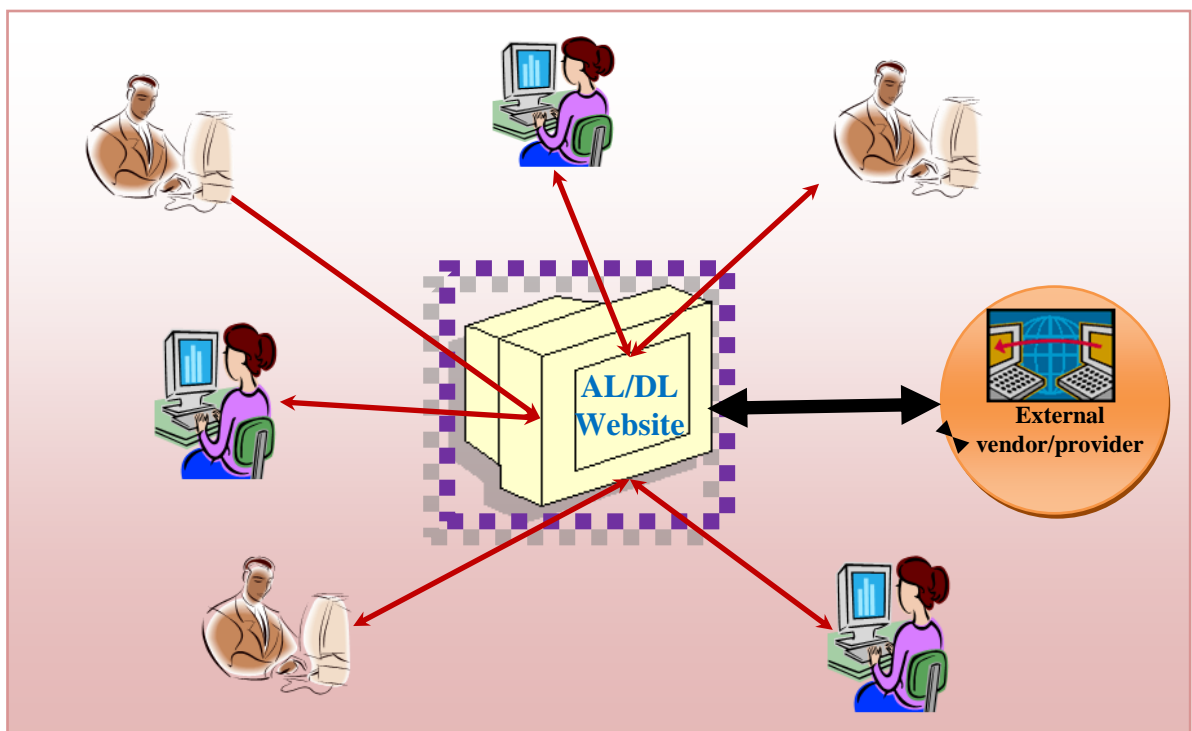
Figure 7.14: Serving and supporting DL stakeholders through the AL by using an external ISs vendor/provider

At the end of the list, participants (managers and DL stakeholders) placed the option which stated that current information services offered by the academic libraries, are already

satisfying DL stakeholders' needs. This result reinforced and concluded the previous discussion and analysis of the documents, interviews and questionnaires regarding the current conditions of academic libraries included in this study. Even though this issue has gained little support, it does not indicate the true and current situation of academic libraries, as discovered and discussed in this study, as there is no single IS that has been precisely designed to support DL stakeholders. Thus, this option could only satisfy distance instructors and some distance learners who are usually based on-campus where the AL is located. In fact, the agreement among many participants to place this option last proves this study's findings regarding the current weaknesses of academic libraries included in this study in supporting DL stakeholders.

7.4 Summary and Conclusion

To summarise, the main issues discovered and discussed by this study relate to the current problems mainly related to academic libraries and distance learning, identified by participants. There appears to be five key themes:

1. Problems associated with the current DL system. A lack of formal interactions between DL participants was found to be common with distance learners not being encouraged to interact with their instructors or with university support facilities, such as the AL. Conversely, other university departments, such as academic libraries, were unable to communicate with distance learners. This lack of interaction resulted in an increased degree of discrimination between distance learners and those on campus. This has also increased the reliance on final exams as the only method of evaluation for distance learners' studies. The quality of DL graduates is still questionable. Thus, setting clear rules and policies about interaction and other support, should resolve many DL problems. Improving DL to meet international standards could help to eliminate those students who join DL simply to get a certificate without being involved in all the processes of HE. Reforming the DL system and increasing the quality of its outputs is a need, not only for the learners themselves, but also for the development of the country, as emphasised by all development plans, especially the 8th one, which concentrated on the need for a DL system to elevate the country and its citizens economically and socially.

2. Problems associated with the current ICT infrastructure. It has been noticed that, compared to Saudi Arabia's wealth, especially during the last few years when its main source of income (oil prices) have been increasing, SA's ICT infrastructure has not developed as it should. It was found that limited access to the Internet in SA is associated with the high

cost of subscribing and, in addition, learners often have difficulty buying PCs due to their high cost when compared to their income. In addition, some distance instructors and learners are still having difficulty accepting and working with IT which can delay any efforts to apply e-learning comprehensively in the future. Furthermore, censorship of the Internet was discovered to be an issue for users.

3. Problems associated with current DL instructors. The main problem here is the incorrect belief that only the final exam is relevant to the DL programme. It has been discussed that instructors have many non-teaching obligations which can reduce the quality of teaching, including distance teaching. As a result, there was no formal teaching for distance learners as there was for on-campus learners and so learning is 100% dependent on distance learners themselves. In addition, many instructors were found to be unenthusiastic about distance teaching due to the lack of incentives, such as salary increases, overtime pay and reductions in other tasks. In addition, many of them lacked IT skills, which could reduce the benefit of using e-learning in their teaching. Added to this, they were very hard to contact. Many learners believed that some of the teachers were unenthusiastic and incapable of distance teaching. This result could be very damaging to any plans to extend or develop DL or to use new applications such as e-learning. In general, many instructors were making little effort in their distance teaching compared to teaching on-campus. This was identified as one of the factors for academic libraries' low level of involvement in DL.

4. Problems associated with distance learners. Many problems were discovered and discussed and found to be having a direct impact on distance learners using academic libraries. For instance, learners are having difficulties studying and working at the same time, a problem that needs to be addressed. In many cases, students miss deadlines and exams. In addition, they have experienced weak communication/interactions with their universities and so they miss many chances to improve their learning outcomes, including using the AL. This problem is seen as being caused by universities failing to build the necessary communication channels with distance learners despite the new technologies, such as e-mails and mobile devices, being available. Furthermore, distance learners are often not required to do private study, which might explain why academic libraries continue to ignore them. In addition, many distance learners' weak IT skills are combined with cultural problems related to difficulties in accepting change, especially the transferring of very traditional learning to e-learning or mobile-learning (m-learning).

5. Problems associated with the current condition of academic libraries included in this study. Many participants agreed that academic libraries are currently providing no support to DL.

Plans for academic libraries to support, or even to reform their policies on DL, are still non-existent. For instance, distance learners have no right to use the academic libraries or their resources unless they physically visit the library. In addition, they are treated as outsiders regarding the borrowing of books and have no rights to access resources from outside. Academic libraries also have difficulties in dealing with IT issues which prevent them from allowing users, including distance learners, to have online access to AL resources and services. In addition, many librarians lack the necessary skills to deal with technologies and with users. In fact, ICT skills have been seen by many studies as an important factor that can positively affect AL users' development (Williams *et al.* 2000; López-Bassols 2002). Furthermore, shortages of resources, especially textbooks, are common, as are shortages of online Arabic resources, such as peer-reviewed Arabic journals and e-books.

In short, most participants in this research identified several general and specific problems which currently have an effect on DL in SA. Tables 7.4 and 7.5 show the greatest problems, as discussed above, which have an impact on reducing and sometimes ignoring the rights of DL stakeholders to be supported with information services and resources. Becoming aware of these problems could be the first step in reforming Saudi DL and considering the role of academic libraries. In addition, Table 7.4 summarises some existing and future solutions to some of the problems and challenges discussed above facing Saudi HE, including DL.

Table 7.4: General Problems Associated with Current DL in Saudi HE

Academic library	*ICT infrastructure*
Few distance learners use it =A.	Poor Internet infrastructure =A, C.
Shortages of textbooks available =A, B, C.	Poor ICT infrastructure is delaying the implementation of e-learning in the country =A, C.
Lack of IR available for distance learners =A, C.	Very expensive computers=C.
Textbooks unavailable in the library due to lack of cooperation between AL and DL =A, C.	Costly Internet and computers =B,C. Limited Internet access = B.
Zero support =B, C	No IT support from universities =B.
Boring AL=C.	
Unqualified/unfriendly staff =C.	
Unfair policies=C.	
Lack of equity between male and female learners=C	
No online access for learners =B, C.	
Limited online Arabic resources =B.	
Few peer-reviewed journals in Arabic=B	
Lack of IL programmes=C.	
Weak AL and Public Library=C.	

✳ **A=Faculty Deans; B=Instructors; C=Learners**

Table 7.5: Specific Problems Associated with Current DL in Saudi HE

DL system	Distance tutors	Distance learners
Lack of interaction =A.	Misunderstand the DL =A, C.	Miss exam times=A, C.
Bureaucracy =C.	DL is only final exams =A, C.	Misunderstand DL/ Degree as the only goal=A, C.
Lack of learners' contact details=A.	Overload work=A, C.	No assignments=A, C.
No tools to communicate with learners =A.	Failed to provide support for distance learners =A, C.	Fear of failing/High dropout rate =A,
Lack of equity=A.	Concentration on on-campus learners=A, C.	Weak IT skills =A, B, C.
Evaluation based only on exams=A.	Few instructors interested in teaching at a distance =A, C.	Work overload =A, C.
Weak graduates=A.	Weak IT skills =A.	Conflict with employee =A, C.
Unclear/outdated regulations and policies=A.	No communication with learners =B, C.	Cultural change towards e-learning= C
The increase in learners=A.	Some teachers are not capable =C	Lack of learning regulations =A, C.
Unqualified clerical staff =C.	Unenthusiastic teachers =C.	Costly =A, C.
Graduation time is very long =C.	Bad treatment=C.	Poor interaction/formal communication =A, B, C.
Dependency on textbooks=A, C	Poor instruction=C.	No equity=C.
Poor marketing =C.	Unfriendly teachers=C.	Unfriendly on-campus learners=C.
	Mismatch between textbooks and course content=C.	Weak in English =C.

✳ **A=Faculty Deans; B=Instructors; C=Learners**

Table 7.6: Existing and Future Solutions to some of the Problems and Challenges Facing Saudi HE Including DL

Responsibility	*Solutions*	*Initiatives /Results*
The Ministry of HE	Increase the MHE budgets to be supported with consultants to deal with HE problems.	MHE allocated the highest budget in its history and supported with qualified staff (consultants) to deal with HE problems.
		Its results will be seen within 3 to 4 years.
	MHE and universities must pay great attention towards improving HE quality and its services.	Recently, the MHE has requested each university to start new quality assurance departments to improve their services.
		On-going
	Increase the number of universities and spread them all over the country to be close to citizens, especially in areas where HE does not yet exist.	The MHE has supported the plan and the idea of converting some existing colleges and university branches to be universities all over the country.
		This has resulted in the creation of 25 universities by Sept. 2009.
		This development is on-going
	The MHE has encouraged and supported the idea of sending Saudi students to study in the most well-known universities in the world.	There are now more than 50,000 male and female students studying different subjects, in different countries, in different languages and for different degrees.
		On-going
	MHE should take the lead and the responsibility in improving and supporting the current DL.	The MHE in 2004 has established a DL and e-learning centre and supported it with more than 30 qualified staff with an open budget to improve and reform DL so its quality can be similar to on-campus learning. This centre has started to introduce its plans and these will be seen in the near future.
	To accept all qualified high school graduates in the country who want to join universities.	Initiatives by the MHE have started to build an admission database system among all Saudi public universities in the country to minimise unoccupied free places available in each university (admission unity).
		On-going
Saudi Public Universities	Universities should rebuild their strategies to fulfil the plans of the government and the MHE and to follow the growth of IT developments.	Currently, actions are being undertaken by universities to build strong and complete sets of strategies and sub-strategies including for DL and AL
		On-going
	Establishing special deanships for running and offering DL.	**Universities such as IMBSIU, KAU, KSU, KFU, and some other universities have created DL deanships and supported these posts with staff, a budget, equipment and more. This is to fulfil the 8th DP requirements.**

Chapter Eight
Conclusions and Recommendations

8.1 Introduction

This chapter introduces the conclusion of the research in relation to the aims, objectives and research questions. Recommendations have also been developed concerning the role of academic libraries and their information services in supporting DL programmes in Saudi higher education. Both the conclusions and recommendations were developed based on the literature review and the discussion of the results of the qualitative and quantitative investigations.

8.2 Study's Conclusions

The main conclusions of this study have emerged from an analysis of the questionnaire surveys carried out with DL stakeholders (instructors and learners), the document analyses and the interviews with administrators in the MHE and universities, librarians and some DL stakeholders. A number of conclusions have been extracted and are represented here to support the recommendations offered later in this chapter. They are as follows:

1: By conducting a comprehensive literature review related to the role of academic libraries and information services in supporting DL in Saudi HE, it was found that no single study has fully discussed this topic and the studies that were identified were mostly related to administering and improving DL with little consideration of the importance of information services support.

2: The study revealed that several challenges and problems currently exist in Saudi HE as well as in DL. Even though these challenges are beyond the scope of this study, they are very important for their direct or indirect impact on and/or relation to the provision of library and information for DL stakeholders. However, the main challenges and problems discovered and related to HE include:

- The lack of strategic planning;
- The questionable quality of teaching, learning and research;
- The high percentage of high school GPAs which puts pressure on HE and further increases the number of people requiring a place at university;
- Lack of qualified faculties;
- A failure to use academic libraries and acquire information resources on the part of both instructors and learners.

In addition, other challenges and problems related to DL include:

- Lack of policies, standards and guidelines;

- Lack of cooperation between DL and academic libraries;

- Cultural factors where DL, instructors and learners still depend mainly on textbooks;

- Lack of interaction between DL stakeholders and between them and their universities' support services, such as the academic library;

- The lack of library and information provision for DL stakeholders;

- The weak English skills of some DL stakeholders;

- The lack of necessary ICT skills on the part of some DL stakeholders.

3: Current academic libraries are experiencing several challenges and problems that could hinder them from providing the necessary information support for DL stakeholders. These challenges are illustrated in Table 8.1.

Table 8.1: Challenges for Academic Libraries

Noticeable negligence on the part of the universities' top managers to appreciate and provide the necessary support for academic libraries to serve their users, including DL stakeholders	The concept of supporting and helping DL stakeholders and on-campus learners equally is deficient. Ignoring the rights of DL stakeholders, especially learners, to receive all the IS support currently available in the AL could badly affect the teaching and learning of DL stakeholders
Lack of e-Arabic resources	Lack of marketing strategies
Librarians' weak skills in ICT, the English language and in serving users	Weak and traditional IL programmes provided for users
Absent or out-of-date policies	Shortages of qualified librarians
Absent or weak standards and plans	Lack of incentives for librarians
Absence of strategic planning	Shortage of continuing training programmes for librarians
Lacking or weak cooperation among academic libraries in SA	Inadequate library buildings, especially at KAU
Lack of cooperation between academic libraries and DL deanships	Absence of information-sharing (KM) between librarians and the library administration
Lack of continuous evaluation of library services	The failure of some library collections to satisfy users' needs
Absence of users' studies	Failure to set priorities for serving and supporting users, including DL stakeholders
Weak or absent agreements between academic libraries, such as inter-library loans	Limited and traditional information services being offered
Users feeling that they are being mistreated by librarians	Librarians lacking the basic rules for serving and supporting users
Limited off-campus access to library databases	The country's weak ICT infrastructure which negatively affects the equitable delivery of information services to all users, including DL stakeholders.
Shortage of PCs in academic libraries linked with the databases and the Internet, especially at KAU	

4: Several important protagonists are responsible for creating and solving problems and challenges related to the current failure to provide DL stakeholders with library and IS support. These are mainly: the MHE, universities' administrations, academic library deanships, DL deanships and DL stakeholders. Their roles in creating problems and challenges related to the lack of provision of library and information services available for DL stakeholders are presented visually in Figure 8.1. In addition, the suggested solutions for these problems and challenges are also presented later in Figure 8.2.

MHE

Unable to emphasise the importance of information provision;

Unable to set guidelines and suggestions;

Not supporting universities financially in relation to the provision of library and information;

Still struggling to allow the DL & e-learning centre to participate in solving this problem to include all universities and stakeholders;

Weak quality assurance system.

Distance learners

• Failure to ask for their right to be served and supported;
• Hard to change their cultural mindset where text books are the main tool of learning (cultural shift);
• Lack of time.

University Admins

• Hard to change their attitude to be positive toward ALs;
• Failure to provide/recognise the necessary support for DL stakeholders;
• Failure to recognise the crucial role of libraries and information provision on university outputs (graduates and research;
• Failure to recognise the importance of DL.

Distance Instructors

• Weak in requesting and acquiring information for them and for their distance learners;
• Unable to update their course materials where textbooks are the main tools;
• Failure to direct DL learners to use the library;
• Unable to change the culture where textbooks are the main tools;
• Find it hard to adjust to cultural shift.

AL Deanships

• Lack of strategic plans;
• Unable to plan resource availability very well;
• Unable to provide IL for users;
• Weak staff training programmes to improve their skills in ICT, English, and to deal with new users such as DL stakeholders;
• Failure to work collaboratively with others such as DL deanships;
• Unable to market their services;
• Unable to achieve equity in serving users .

DL and e-Learning Deanships

• Unable to recognise the importance of AL and information provision in supporting their stakeholders;
• Unable to provide incentives for instructors;
• Unable to build strategies, guidelines and standards;
• Unable to allocate alternatives for textbooks;
• Unable to improve interaction between DL stakeholders;
• Unable to build cooperation with others including ALs.

Figure 8.1: Overview of Challenges and Obstacles to the Effective Use of Libraries in DL

MHE

Should emphasise the importance of information provision;

Should set guidelines and suggestions to administrate ALs & DL;

Should support universities financially in relation to the provision of library and information;

Should support the DL & e-learning centre to participate in solving this problem and to support all universities and stakeholders;

Should adapt a quality assurance system.

Distance learners
- Should ask authorities for their right to be served and supported by all kind of supports including ALs services;
- Should change their cultural mindset where text books are the main tool of learning (cultural shift);
- Should be trained in uisng ICT;
- Should be giving enough time by their employers to study and to do their exams.

University Admins
- Their attitude toward ALs should be changed to be positive;
- Should provide/recognise the necessary support for DL stakeholders incluidng ISs;
- Should recognise the crucial role of libraries and information provision on university outputs (graduates and research;
- Should admite and recognise the importance of DL.

Distance Instructors
- Should request and acquir ISs for them and for their distance learners;
- Should update their course materials to include more resources other than textbooks wehere are the main tools;
- Should advise and direct their DL learners to use the AL;
- Should change the existing common culture where textbooks are the main tools;
- Should adjust to cultural shift where skilling in using ICT is dominating teaching and learning by distance.

DL and e-Learning Deanships
- Should recognise the importance of AL and information provision in supporting their stakeholders;
- Should provide incentives for DL instructors;
- Should build strategies, guidelines and standards including the use of ALs and ISs;
- Should allocate other alternatives for textbooks;
- Should improve interaction between DL stakeholders;
- Should build cooperation with others including ALs.

AL Deanships
- Should start strategic plans;
- Should plan resources availability very well;
- Should provide IL for users including DL stakeholders;
- Develop staff training programmes to improve their skills in ICT, English, and to deal with new users such as DL stakeholders;
- Should work collaboratively with others such as DL deanships;
- Should market their services;
- Should achieve equity in serving users .

Figure 8.2: Overview of Solutions for Challenges and Obstacles to the Effective Use of Libraries in DL.

5: The weak ICT infrastructure in Saudi Arabia and its universities discovered by this study has resulted in several problems, as illustrated in Table 8.2.

Table 8.2: ICT Infrastructure Problems in Saudi Arabia

Poor Internet connections in parts of cities and some rural areas.	Weak cooperation between ICT centres and DL deanships and academic libraries.
Costly Internet access.	Lack of librarians with the necessary ICT skills.
Censorship of the Internet.	DL deanships as well as academic libraries unable to adapt to new technologies such as Web 2.0 to serve and support their users.
Lack of appropriate ICT training for users.	Lack of interest by some university stakeholders such as librarians, instructors and learners in using new technologies to carry out their tasks and responsibilities.
Bandwidth in universities needs to be increased, which is very costly.	Limiting the online services and support that can be delivered to DL stakeholders.
Some students find PCs costly.	Lack of resources for ICT departments in the academic libraries causing a lack of staff qualified in ICT and frequent delays to ICT projects such as developing academic libraries ' websites.
The isolation between libraries and their servers in ICT centres causes delays and frustration.	

6: Participants expressed their feelings, thoughts and attitudes towards the current lack of information services support offered to DL stakeholders by both the academic libraries and the DL deanships. Hence, the implementation of several information service models/solutions which were introduced in this study has gained strong support from participants to provide the necessary support for DL stakeholders. These models/solutions are closely linked and some of them could be implemented rapidly. However, others should form part of long-range planning, as explained below.

8.3 Recommendations

The suggested recommendations are aimed at providing solutions to the problems and to overcoming some of the obstacles and challenges facing the provision of information services for DL programmes in Saudi HE. These challenges are mainly related to the current lack of recognition of the right of DL stakeholders to be served and supported by information services and resources. In addition, these recommendations attempt partly to provide alternative models/solutions for information provision to support Saudi DL stakeholders. Hence, based on the research findings and the above conclusions, it is recommended that some of the IS models/solutions introduced here should be adopted as soon as universities' policies, plans, academic library strategies, needs and available resources, such as budget and staff, allow. These models/solutions in general could serve as a solution to the problems identified in this study and help to make DL in Saudi HE more effective.

In short, the future strong interrelation and cooperation between higher education, distance learning and academic libraries should drive the final recommendations which can be divided

into five sets, including one which is related to the application of information services models/solutions. It should be re-emphasised that recommendations for each set are interrelated to form a complete system and have been divided according to the aims of this study.

8.3.1 Recommendations Related to the Higher Education Sector (and Mainly Related to the Role of the MHE in DL and the Provision of Library and Information Services)

Several recommendations have been made that are related to the MHE. For instance, the MHE should act on regulating DL in SA, not forgetting issues related to the provision of libraries and information. It should supervise Saudi DL and its development by establishing an accreditation system to ensure the quality of DL and e-learning. In addition, with its establishment of DL and a new e-learning centre, the MHE should act quickly to establish an information services support centre for DL stakeholders throughout SA in order to support the provision of e-resources, especially those in Arabic, and provide the necessary translation services. Its recommended information services are illustrated in Table 8.3.

Table 8.3: Information Service Support Centre's Main Tasks

Urgently build an information services and resource centre/portal based on the Internet to provide the necessary information services in parallel with DL courses.	Build the necessary agreements with universities and their academic libraries to provide the information services and resources for use by DL stakeholders.
Offer and guarantee free access for DL stakeholders to many course-related full-text online resources.	Obtain the necessary accreditation by universities.
Provide the necessary training support on- or off-site or online which should include training in allocating information (information literacy) and using ICT.	Consider established international guidelines and standards related to the provision of information to DL stakeholders.
Work cooperatively with all academic libraries to enhance the centre's contents and services.	

In addition, the MHE should initiate the necessary cooperation and collaboration between universities, academic libraries and DL deanships in order to provide comprehensive information services for DL stakeholders. It should also work hard to ensure that DL and e-learning programmes, together with their graduates, receive the necessary appreciation, recognition and acceptance from other government and private organisations. This could be achieved by working hard to reduce the gap between traditional education and DL by setting necessary rules, such as the right of DL stakeholders to equal support and services from many departments including academic libraries. Moreover, they should bring to the attention of the government bodies on behalf of universities the problems concerning the ICT infrastructure in Saudi Arabia, such the narrow bandwidth of the Internet for each university, in order to make improvements. Finally, the MHE could participate effectively in supporting DL stakeholders with many services, including information services, by establishing several DL centres in many cities which can help as many learners as possible, especially women.

8.3.2 Recommendations Related to the DL Sector Concerning the Role of DL Deanships

Many recommendations are proposed in this study related to the role of DL deanships in recognising the role of academic libraries and information services in supporting DL stakeholders. For instance, regulations, guidelines, standards and policies play an important role in directing the development of DL appropriately for instructors and learners, so these regulations and policies must be carefully formulated to include all aspects of DL including the use of all the information resources and services offered, including those offered by the academic library. Appropriate regulations should be published clearly and distributed promptly to all DL stakeholders to help them achieve their goals. These regulations must be stated clearly and should be understood by all DL stakeholders in order to achieve the mission and vision of DL programmes. One of the basic regulations that must be stated clearly, understood and followed by both DL instructors and learners is that distance learners are required to do homework or other private study, such as writing research papers in their study periods. Hence, using academic libraries and other information resources should be emphasised as an important part of DL.

In addition, DL deanships should change their current traditional teaching methods where textbooks are the main sources of information to ones that can help learners to be more active and interact with instructors, other learners and their institutions, including academic libraries. In fact, dependency on textbooks could be very harmful for instructors, learners and libraries. For instructors, this may limit their personal development to certain books when knowledge is actually growing very fast; by so-doing they could limit their learners' horizons. For learners, opportunities to expand their knowledge beyond the textbooks that are currently being used will be limited; this might also badly affect their learning. For academic libraries, the effort, money and time spent on acquiring and organising resources and building these into a knowledge base will be wasted if users have predefined learning materials such as textbooks and if, at the same time, their access to them through their library is limited. So, the academic libraries and the DL deanships must build the necessary co-operation to attract as many distance learners as they can to visit and use the academic libraries. Changing the method of teaching and learning from being dependent on textbooks to being dependent on varied resources, such as those found in academic libraries, is important. Other recommendations are shown in Appendix 8.

8.3.3 Recommendations Related to the Academic Library Sector, Particularly those Related to the Role of Academic Library Deanships

Several recommendations related to the role of academic libraries in supporting DL are presented here. For example, it is important that distance learners should be advised and/or trained to use academic libraries from the first year of study. If this is not so, it could explain why distance learners achieve lower levels of success than on-campus students, as mentioned by some other studies in the Saudi context. Thus a lack of support from academic library services could be harmful to the quality of education provided by DL and such support should be guaranteed. Academic libraries should market their services, including IL programmes, among all their users, including DL stakeholders. Moreover, according to the current study's results, academic libraries are failing to attract many users which could harm the quality of Saudi HE in general, including DL, and could reduce the beneficial outcomes of the very expensive traditional and non-traditional resources available in the academic libraries. Hence, academic libraries should work harder to build their own marketing strategies, which must include DL stakeholders.

Academic libraries' marketing strategies could be built by the libraries themselves or by hiring external consultants who are well known for developing organisations such as the Institute of Public Administration (IPA) in SA. In addition, using available media such as university newspapers, exhibitions, websites, radio, TV and daily newspapers could be valuable in bringing academic libraries' services and resources to the attention of users, especially DL stakeholders. Academic libraries have to support their staff with continuing training programmes internally or externally in many disciplines, including ICT, information services for special users, marketing strategies, English skills and ways to attract users. It is also suggested that academic libraries must be involved positively in increasing DL stakeholders' use of academic library resources by granting them on-line and off-line access to the many information resources available in the library to support their teaching, learning and research. Academic libraries also should play a clear role in helping DL stakeholders to use the library effectively and should make every effort to acquire all the information resources they and their departments need, especially resources that are very expensive for individuals to acquire. Thus, the information services provided by the academic library have to be planned and designed to serve all users, including DL stakeholders, for teaching, learning and research purposes. Other recommendations are shown in Appendix 9.

1.3.4   Recommendations Related to ICT

ICT plays an important role in running and supporting academic libraries, particularly in their services to DL. Hence, several recommendations related to the investigation of the current ICT infrastructure in relation to academic libraries and DL are presented next. For instance, ICT infrastructure, especially in rural areas, must be improved to provide equity in services for DL stakeholders. It is essential, for example to offer comprehensive, scheduled and continuing training programmes in universities and in society in general on the use of ICT and to apply what is learned in learning, teaching and research. Spreading the idea of e-government, e-training and e-learning could encourage users to learn more about ICT. Also, improving the bandwidth, the speed and the spread of the Internet in universities and in the country is very important in the application of e-learning and its support such as information services. In addition, more concentration should be placed on making digital Arabic contents available on the Internet for all users. In fact, increasing the Arabic content on the Internet can help DL stakeholders both to teach and learn. For instance, universities should work hard to build their own thesis databases by digitising all theses and providing Internet access in order to share them with others. Government publications, documents and data should be published online through the Internet, which will increase the Arabic content on the Internet, increase the use of the Internet, and improve access for DL stakeholders. The government and communication companies should work together to lower the cost of Internet access for both individuals and universities. Government must also reduce the practice of Internet censorship and participate in building the "Information Society" by subscribing to the best known online resources and making them free of charge to the whole population in order to encourage research and to build people's general knowledge base. Finally, in order to provide consistent access to information services for all users, the ICT infrastructure in Saudi Arabia must be improved.

8.3.5 Recommendations Related to the Appropriate Information Services
Models/solutions that can be Implemented to Support DL Stakeholders

The data collected were used to develop insights into the role of academic libraries and information services in supporting DL in Saudi HE. The current needs of DL stakeholders to acquire and use information resources and services to support their teaching and learning resulted in recommendations that could be used to improve the current role of information provision, including that of academic libraries, in supporting DL stakeholders in Saudi higher education. This study's findings increase awareness of the importance of information services and resources provided by any means for DL programmes and their stakeholders. Hence, the current research findings related to objective number 5, including those related to the most

appropriate models that can be used to support DL stakeholders in Saudi HE, suggest immediate change/developments for the provision of information services in supporting such programmes and their stakeholders. In addition, the literature review included in this study, especially in terms of contents related to the information services in academic libraries that should be designed to support DL stakeholders, is worth consulting in order to identify further developments in the provision of information for DL. In fact, DL and the e-learning models included in the literature review, emphasise the importance of information provision in supporting the whole system and its stakeholders. However, these DL and e-learning models were unable to provide an in-depth analysis of the provision of information, a gap that this study might help to bridge. Furthermore, international standards related to the provision of information services provided for DL, and included in the literature review, have been very helpful in shaping the final outcomes of this study.

However, it should be mentioned that the models and solutions recommended by this study should be designed to comply with the existing abilities and facilities of universities, their academic libraries and the MHE, in order to achieve the goal of serving DL stakeholders by providing solutions to the current problems and challenges facing DL regarding the provision of information. The common goals of these models and solutions should be as follows:

- To secure the necessary changes by applying continuous improvement and developments in the provision of information in supporting DL stakeholders;
- To establish new trends and services in academic libraries to support DL stakeholders in SA;
- To ensure and increase the efficiency and quality of accessing information by DL stakeholders in Saudi HE;
- To improve and develop academic libraries' information services and resources for outreach;
- To provide the necessary information literacy programmes that can help all in academia to find reliable information;
- To recognise the rights of DL stakeholders to be served and supported, regardless of their physical location;
- To provide the necessary publicity and marketing strategies to offer all DL stakeholders, without exception, information about the information services designed for them.

Thus, the development of recommended models and solutions that could be implemented to support DL in Saudi HE with all the necessary information services and resources can be divided into two development plans, as follows:

8.3.5.1 Short-term Plans

Such plans are designed to provide immediate or quick solutions for a short time only and some models that have been tested could be applied to the current Saudi context. These models could be used immediately and run individually by or in cooperation with academic libraries and DL deanships. Such plans could last for one year or more and could help provide a rapid improvement of the current inadequate practices affecting DL stakeholders. However, short-term solutions might last longer than expected because of a factor that is related to the reluctance to accept change on the part of organisations and their staff, especially in developing countries. There are two models and solutions that are recommended to be implemented in a short-term plan. These are as follows:

1. Academic libraries should hire an external information services provider (i.e. external vendors) in order to meet DL learners' needs.

2. The DL deanship in each university should create its own electronic library (i.e. an e-library) to support its stakeholders.

<u>Academic libraries should hire an external information service provider in order to meet DL learners' needs</u>

One of the solutions that Saudi academic libraries might use in order to fulfil some of their roles and to respond to their users' needs is to seek the help and support of public or private vendors by outsourcing information services and resources for their DL stakeholders. This trend, although given a low priority by DL stakeholders and managers who ranked it as fifth out of six, is supported by many researchers, as noted in the following: "more institutions are creating partnerships with other faculties, universities, companies, and other kinds of institutions to share technology and to produce and deliver courses" (Carnevale 2000; Dunn 2000; Cheney 2002; cited in Howell *et al.* 2003). It should be mentioned that, in order for Saudi academic libraries to implement this and other models to support DL stakeholders, strong and formal cooperation between them and DL deanships must first exist. Otherwise this model and others in the Saudi context might not be easy to initiate. In this model, information resources, as well as services, could be provided completely by outside vendors. This service must include Arabic content as some DL instructors and many learners were found to have weak English language skills and are thereby disadvantaged since English, being the most popular language in the world, is the main online publishing language.

Otherwise, vendors or universities should provide well-designed translation services to translate texts from English into Arabic in a reasonable time. In addition, services and resources should be offered 24/7, especially during semester times. This service should be marketed to all DL users without exception.

In addition, raising the current awareness of all users is very important for keeping them updated. Such a service should also be managed, monitored and controlled by the academic library staff who are proficient in information provision. This would be helpful in maintaining the quality of services and could also support users other than DL stakeholders. This model has the potential to provide a centralised service through a one-stop shop window to support DL stakeholders with information. This could be achieved by using virtual bookstores; this also has the advantage of saving staff time (Levy 2003).

The DL deanship of each university should create its own e-library to support its stakeholders

As discovered by this study, the DL deanship at KAU has started to build its own e-library by subscribing to many online databases, which are mainly in English; the DL deanship at IMBSIU is planning to do likewise. It was found that this model was implemented as a reaction to the current weaknesses of academic libraries in supporting their users, including DL stakeholders, as well as to address the lack of cooperation between academic libraries and DL deanships in universities. This model received less support from managers who ranked it as the 4th option, while DL stakeholders ranked it as the 2nd. In brief, the recent implementation of this model by current DL deanships, especially at KAU, as discovered by this study, highlighted several points, as follows:

- ➢ It exemplifies the current lack of cooperation between academic libraries and DL deanships;
- ➢ It highlight the current/ongoing waste of resources and time when duplication occurs between resources in the DL e-library and the e-information resources currently available in academic libraries;
- ➢ Most DL e-library resources and online databases in academic libraries in SA are in English with no useful online Arabic resources being offered as yet. This has limited the advantages of such resources;
- ➢ DL stakeholders are currently isolated/ignored and are thus not being served and supported by their academic libraries;

> ➢ Academic libraries could continue to ignore and fail to support DL stakeholders, especially if cooperation between DL deanships and academic libraries continues to be lacking;

> ➢ It illustrates the current isolation of DL stakeholders from their university's support services, including the academic library;

> ➢ The creation of e-libraries by DL deanships could be supported at the present time when the economy is strong. However, in a recession, this could come to an end.

However, although this model could be used to recognise fully the rights of DL stakeholders to be served and supported, this model proved to be ineffective as many learners and some instructors had weak skills in the language of almost 95% of the e-library contents: English. Hence, acquiring e-Arabic resources is very important. So, the application of this model should follow the existing standards and roles of an e-library available through the Internet. However, the application of this model at KAU is still in its first stages and presently lacks professionalism.

8.3.5.2 Long-term Plans

These plans are designed to run for a longer term and several models presented and tested in this study could be part of long-term plans for supporting DL stakeholders in SA. Such plans could be run by the MHE and could include a long-term plan to build a well-designed, centralised information centre. This plan could be also extended to invite other HE ministries in the Arab world to join in providing academia, including DL stakeholders, with all the information resources and services they need, by building a consortium. This plan could be run by the MHEs or other interested organisations such as the Gulf Cooperation Council for the Arab States (GCC countries) and/or the League of Arab States. Some models were found to be more useful in providing a long-term solution to the current and future problems related to the provision of information in DL. Carefully planned and well implemented, the models itemised below could provide sustainable, solid and high-quality information services for the longer term.

1. The National Centre for e-learning and DL in the MHE should have the responsibility for supporting DL stakeholders with all the information services they need by creating an IS centre;

2. Academic libraries should be able to extend their services to all of their users, including distance learners;

3. A consortium of Saudi academic libraries should provide all the information services needed by all DL stakeholders.

The National Centre for e-learning and DL in the MHE should have the responsibility for supporting DL stakeholders with all the information services they need by creating a centralised information service centre

According to the current trend in Saudi HE where applying DL and e-learning by all public universities (old and new) is becoming the norm, the model where information services could be offered by a centralised centre seems, as supported by many participants, especially DL stakeholders, to be the ideal solution and should be planned for the long-term. For several reasons, this centre could be created in parallel with the current practices to develop DL in Saudi HE:

➢ The current and ongoing goal of the MHE in SA to support the spread of DL, its stakeholders and e-learning involves the establishment of a national centre for DL and e-learning, including information and library service provision.

➢ The 8th DP emphasised the spread of DL and supported its presence in all universities.

➢ The current practice of universities is to establish new DL and e-learning deanships.

➢ The public universities in SA are supported and monitored by the MHE and the current centre could save universities and DL deanships both time and money.

So, the creation of a centralised information service centre dedicated to serve and support the ongoing need for information by many DL stakeholders, could be a solution that should, according to the previous facts, be established quickly. The factors that would strongly support the implementation of a centralised information services model are many (see Appendix 10).

The AL should extend its services for all of its users, including DL learners

The university library is one of the most important facilities in any university setting; it plays a very significant role in improving the quality of education, as well as having a unique role in the development of scientific research. The academic library is no longer merely a storage facility for knowledge with limited access; it is an important tool for acquiring and organising information and for serving its nearby customers and local, national and international users. This recommended solution could be achieved under the following conditions:

➢ Cooperation between academic libraries and DL deanships should exist;

➢ Academic libraries must be recognised for their importance in supporting learning and teaching and research, including DL, at a university's highest administrative level;

➢ Academic libraries must be supported financially and allocated all the necessary resources to achieve their roles in supporting users, including DL stakeholders;

> Policies, guidelines and standards for serving and supporting DL stakeholders must be prepared prior to services being established;

> Academic libraries should concentrate on marketing and information literacy programmes;

> Academic libraries should hire qualified staff and provide them with the necessary training.

The recommended roles and tasks of the new Saudi academic libraries in the twenty-first century which can support DL programmes are illustrated in Appendix 11. However, according to the circumstances described above, this suggested model, where the academic library should be responsible for serving DL stakeholders, has both advantages and disadvantages, as shown in Figure 8.3.

Advantages	Disadvantages
It would eliminate the disadvantages of using a centralised model.	The current policies of, and conditions in, ALs are not successfully supporting DL stakeholders.
It could improve users', including DL stakeholders', overall usage of AL resources and services, which are expensive to universities in terms of both finance and effort .	The infrastructures of ALs, including ICT and HR, are failing to serve users, including DL stakeholders.
Many users of the IRs offered by ALs could pay back their cost in the shape of success.	Weak and unreliable services might be provided.
It will achieve their goals in serving and supporting all their users, including DL stakeholders.	It could negatively affect other users.
	The failure to serve DL stakeholders might continue.
The natural practice of ALs should be to support their community, including DL stakeholders.	Offering qualified ISs to DL stakeholders will require intensive training for staff and users which cannot be achieved quickly.
	The lack of digitised Arabic resources in the ALs could delay the success of remote services for distance users.
The value and importance of ALs would be obvious in users' lives, including DL stakeholders.	Because of the economic recession, AL services for users, including DL stakeholders, could be decreased.
DL stakeholders often feel isolated (as this study discovered) and this model could help make them feel part of a university community that is served and supported by ALs.	Delivery services and the support needed by users within a limited time could be delayed.
It could offer ALs greater budget allocations, allowing them to improve and extend their services to include others, including DL stakeholders.	A lack of support and appreciation of ALs and their services by university administrations could affect the services provided for DL.

Figure 8.3: The Advantages and Disadvantages of Academic Libraries in Serving DL Stakeholders

A consortium of Saudi academic libraries should provide all the information services needed for DL

One of the model options which gained some approval, and that could be used to overcome the current problems facing DL stakeholders regarding the lack of information support offered by their university academic libraries, is to build a consortium. This consortium should be able to achieve cooperation between all academic libraries in the country, which is presently seen as weak or sometimes altogether lacking. This model could benefit greatly from the advanced ICT tools that are now available via the Internet, which, in countries such as the UK and the USA, can be seen as encouraging this type of cooperation model. The cooperation involved in building a unified consortium in Saudi HE could offer the following advantages:

- Achieve the goal of uniting the current Saudi academic libraries;
- Secure the need of DL stakeholders to gain access to information resources and services anywhere in the country;
- Increase the usage of information resources, especially online, by many users whilst paying back the investment cost;
- Integrate manpower, resources, services, tools, knowledge and methods among academic libraries;
- Reduce cost;
- Offer many options regarding the resources and services available to users;
- Share information and experience among librarians and academic libraries (information sharing/KM);
- Improve the skills and knowledge of human resources;
- Improve the overall quality of teaching and learning for DL stakeholders;
- Develop the current information services and resources in academic libraries.

Regional cooperation between academic libraries throughout the Gulf region countries (GCC) and the Arab World

A consortium of Saudi academic libraries serving and supporting DL success could be extended to include academic libraries throughout Gulf region countries (GCC) and later on throughout the Arabic World with its commonality of language, religion and culture. The reason behind this trend is to build a strong information services system that can support all Arab users, including those teachers and learners who are involved in DL. This cooperation between Saudi academic libraries, GCC academic libraries, and Arab world academic libraries could help in creating a strong and solid shared knowledge base. This wide-ranging cooperation between all Arab academic libraries could cover many resources published in Arabic, the lack of which is seen as one of the current obstacles in providing strong

information services support, and minimise the problems of resource access for those with limited skills in English. Nevertheless, this cooperation could benefit from the existing networks locally and through the Internet. In addition, with the country-wide distribution of distance learners combined with the current distribution of more than 25 public universities and their academic libraries in many districts, cooperation is indeed becoming more possible and valuable, not only to support DL stakeholders, but also to support each other and benefit from each other's experience, including for the provision of information services.

8.3.6 Other General Recommendations

1. DL deanships and universities must adopt a national strategic plan regarding the application of DL and e-learning in the country which should include full details of the support needed by users, such as library and information provision support.

2. Universities should invest heavily in building their own teaching and learning contents and share them with others in a cooperative way.

3. Public libraries in SA, which this study shows are distributed all over the country, could play a crucial role in supporting DL stakeholders, especially where the ICT infrastructure is still weak. Hence, DL programme planners should be encouraged to involve public libraries in planning and designing DL in SA.

4. Public libraries should be involved in planning and designing the necessary support for DL stakeholders by building cooperation with universities.

5. Information science departments in universities should reform their curricula to include modules in ICT, information literacy and supporting and serving special users such as DL stakeholders.

6. All DL stakeholders should be considered and involved in designing and planning DL programmes and their support services, including library and IS support. They should present their attitudes, perceptions and needs to the planners, a situation which cannot be achieved unless DL stakeholders are encouraged to participate in DL planning and design.

7. DL stakeholders' needs should be continually analysed by both DL deanships and academic libraries.

8.4 Research Contributions

This research was able to investigate a new area related to the provision of library and information services provided for DL stakeholders in Saudi HE. It presents a detailed literature review about the roles of academic libraries and DL in SA, which reveals that this topic has been largely ignored by scholars, administrators and organisations. Hence, this study

delivers an important contribution to the literature on the role of the library and information provision in supporting DL stakeholders in Saudi HE. In addition, the study's outcomes could help in providing effective solutions for the provision of library and information services in Saudi HE, which could be useful during a time of recession. This research also provides relevant findings for library and information professionals, as well as for educational planners and managers, especially for DL. This can help in decision-making related to the implementation and administration of library and information provision in the cycle of DL programmes in SA. Moreover, this study was able to investigate the current conditions of Saudi HE, including DL, as an important step in understanding the role of academic libraries and their information services in supporting DL stakeholders. Hence, several important factors and themes have been introduced and discussed which HE administrators may find beneficial when reforming the provision of library and information services for all users, including DL stakeholders. Finally, to the best of the researcher's knowledge, this study is the first to suggest alternative solutions to the current research problem regarding the lack of information services provided to DL stakeholders in Saudi HE.

8.5 Further Work/Research

More investigation regarding the research topic is needed. The current and widespread application of e-learning programmes in Saudi HE should be studied to investigate the role of library and information provision in providing for these programmes. Hence, Saudi HE should aim to provide a complete set of DL and e-learning resources to supersede the existing inadequate system of library and information provision. This study has suggested several models/solutions which need to be tested and put into practice in order to decide what is best for adoption in the Saudi context, which the current study was unable to achieve fully in the time available. Thus, investigating the role of ICT in serving and supporting the future implementation of DL and e-learning in Saudi HE is an area which needs to be investigated, especially with the current trend in offering DL and e-learning which heavily depends on the Internet. The implication of TQM in academic libraries, as well as in the whole system of HE, including DL and e-learning, is very important and needs to be investigated in order to achieve the government goal of having qualified graduates who can run the country. In addition, the existing cooperation projects between academic libraries were found to be weak. Hence, investigating this topic and the reasons for it could help in building strong and reliable cooperation that could benefit the whole HE system.

As might be expected, academic library users, especially DL stakeholders, would appreciate the study's results, recommendations and solutions in helping them to provide or receive the

necessary information services. Academic libraries should be able to provide well-designed information services to their current users by applying the recommended models. DL stakeholders will then have the right to access a range of information resources and services that have been lacking for a long time. However, the results of this study have yet to be put into practice. Hence, further work is needed to raise awareness of the importance of these solutions to help to negotiate a course of action that can bring them about.

8.6 Limitations

Any research, including this, has its own limitations. For most, the generalisation of the results acquired through case study research is limited. However, conducting multiple case studies, as here where two cases were selected, can help enrich the research and help in reducing the limitations inherent in its generalisation. In addition, triangulating the methods would increase the overall reliability and validity of this study, especially since question #10, in the instructor questionnaire and question #8 in the learner questionnaire could be improved to provide more accurate results.

8.7 Conclusion

Information services in the academic libraries included in this study were not consistent and faced a number of challenges, especially with regard to supporting DL. In addition to these existing challenges, the newly announced universities in SA will be under pressure to provide information services that can satisfy their users' needs, including those of DL stakeholders, in relation to the amount of time needed to provide useful information services, their cost, the ICT infrastructure and the availability of suitable expertise. Moreover, the new implications of e-learning, which have been announced by the Saudi government, have to be supported with qualified information services and resources in order to offer high-quality DL. Therefore, the researcher presented several theoretical models that would lead to improved information services to support DL. These models could serve all universities in SA and overcome the problems that are currently facing Saudi academic libraries in providing information services to DL stakeholders and which would therefore improve the quality of HE in SA. These models must utilise the Internet as a primary tool in linking all academic libraries and their users together, including DL stakeholders. In short, Saudi public universities will be forced by the government, especially in light of the 8th DP, to extend their courses to reach learners at a distance from campuses; they will have to develop their information services since these are vitally important for the success of this kind of education.

However, extensive planning needs to go into the implementation of both information services and DL. The academic libraries should play an important role in ensuring that DL stakeholders receive appropriate information services by ensuring free access to a range of information services and resources by improving their websites. As discovered by this study, there is a need for an awareness campaign, as well as scheduled IL training sessions for DL stakeholders so that academic libraries can market their services to those who know little about them. For DL and its new method (e-learning) to succeed and achieve the government's goals, there must be adequate information services and resources, cheap computers and Internet access, and easily accessible Internet facilities in all regions, along with policies and standards. Online access to databases and other resources through the Internet should also be planned for so that distance learners can have access to them as and when required.

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Yin, R. K., 2009. *Case study research: design and methods.* 4th edn. Los Angeles, Calif.; London: Sage.

The Role of Academic Libraries in Supporting Distance Learning in Saudi Higher Education: A Case Study Approach

Dear Participant,

My name is Fahad M. Alfrih and I am an I.P.A. faculty member. Currently, I am working on my PhD at the Department of Information Science at Loughborough University in the UK. My work has an emphasis on distance learning in Saudi Arabia.

I would like first to thank you in advance for taking the time to answer this questionnaire which has been designed to collect data regarding the provision of information services that support distance learning programmes.

You have been selected to answer this questionnaire and participation is voluntary. This questionnaire will take approximately 20 minutes. The study and this questionnaire are designed for educational purposes.

The data will be analysed and interpreted by the researcher himself and is completely confidential. As a participant, you do not have to write your name on the questionnaire.

For further information, please contact the researcher by one of the following methods:
Mobile # 0505210573
E-mail: alfrih@hotmail.com
Institute of Public Administration (IPA), Riyadh, Saudi Arabia.

Once again, I appreciate your time and your cooperation.
Sincerely,

Fahad M. Al-Frih
PhD. Student
Dept. of Information Science Dep.
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Instructors' Questionnaire (Q1)

DL: Distance learning (study away from campus).

Part A: Background
Please tick (√) in the appropriate box:

1. University & College		
Imam Mohammad Bin Saud Islamic University (IMBSIU)	Da'wa and Islamic Media	1
	Arabic Language	2
	Islamic Foundations	3
	Islamic Law	4
King Abdul-Aziz University (KAU)	Art and Humanities	5
	Economics and Administration	6

2. Your department: …….....................…………………………………………………………………….

3. Gender	
Male	1
Female	2

4. Age	
18-24	1
25-30	2
31-40	3
41-50	4
Over 50	5

5. Experience in teaching by distance					
Less than 5 years	1	5-10 years	2	More than 10 years	3

6. Highest academic qualification					
PhD. Degree	1	Master's Degree	2	Bachelor's Degree	3

7. From where did you obtain your last degree					
Saudi Arabia	1	Arab country	2	Western country	3
Other (specify) :					

1= Poor	2= Fair	3= Good	4= Very Good	5= Excellent

8. How would you rate your proficiency in the following						
N	***Variable***					
1	Computer applications (MS office...Etc.)	1	2	3	4	5
2	Internet	1	2	3	4	5
3	English language	1	2	3	4	5

Part B: Consists of four sections as follows:

B1. Distance Learning Pprogrammes Services

1=Strongly Disagree	2 = Disagree	3 = Undecided	4 = Agree	5 = Strongly Agree

9. Please indicate your opinion regarding every statement from the following concerning existing DL programmes						
N	*Variable*					
1	I have encouragement from the DL Deanship to use the academic library and advise my students to do so.	1	2	3	4	5
2	It is suggested by the DL regulations to use the academic library and other information resources.	1	2	3	4	5
3	As a distance teacher, I do not need to use the academic library.	1	2	3	4	5
4	There is no support from the academic library for DL programmes.	1	2	3	4	5

5	There is training programme to use the academic library (e.g. using e-resources, library catalogue...etc)	1	2	3	4	5
6	Current DL still depends on textbooks.	1	2	3	4	5
7	There is no equity between off- and on-campus students regarding the availability of information services support.	1	2	3	4	5
8	I always use information resources (e-journals, e-books, printed sources) other than text books to support my teaching.	1	2	3	4	5
9	I prefer to buy books and other resources instead of using the academic library.	1	2	3	4	5
10	DL courses should include all the necessary reading materials instead of using the academic library.	1	2	3	4	5
11	DL students are not required to do assignments or other course work.	1	2	3	4	5
Suggestions:						

1=Not at all	*2=Minor extent*	*3= Undecided*	*4=Moderate extent*	*5=Major extent*

10. To what extent has the following affected your teaching by distance.						
N	***Factors***					
1	Absence of information services support from the academic library	1	2	3	4	5
2	Lack of ICT support	1	2	3	4	5
3	Limited library resources	1	2	3	4	5
4	Lack of Internet access	1	2	3	4	5
5	Too much work (Lack of time)	1	2	3	4	5
6	Lack of interaction between DL stakeholders	1	2	3	4	5
7	Lack of adopting new technologies in DL	1	2	3	4	5
8	Distant location of academic library	1	2	3	4	5
Other (specify) :						

B2: Current & Future of Academic Library Services

1=Never	*2=Rarely (once a semester)*	*3=Undecided*	*4=Often (every month*	*5=Very often (every week)*

11. How often do you use the following?						
N	**Variable**					
1	Your academic library	1	2	3	4	5
2	The nearest academic library	1	2	3	4	5
Other (specify):						

12. How do you usually use the academic library?						
N	***Communication Method***					
1	Personally	1	2	3	4	5
2	By E-Mail	1	2	3	4	5
3	By Telephone	1	2	3	4	5
4	Third Party	1	2	3	4	5
5	Academic Library Web Site	1	2	3	4	5
Others(please indicate):						

13. What type of resources do you use?						
N	***Variable***					
1	Printed resources.	1	2	3	4	5
2	Electronic resources.	1	2	3	4	5
3	Audio/visual resources.	1	2	3	4	5
Comments:						

14. To what extent do you usually acquire information for the following?						
N	***Variable***					
1	Support my current teaching.	1	2	3	4	5
2	Keep up-to-date.	1	2	3	4	5
3	Leisure.	1	2	3	4	5

Comments:

1=Not at all	2=Minor extent	3= Undecided	4=Moderate extent	5=Major extent

15. To what extent do you think any of the following are affecting your use of the academic library?

N	Factors					
1	Fear of using the academic library automated system.	1	2	3	4	5
2	I do not know how to get the information myself.	1	2	3	4	5
3	Distant location of academic library.	1	2	3	4	5
4	Opening hours.	1	2	3	4	5
5	There are not enough resources (books, journals, e-resources).	1	2	3	4	5
6	Resources are out of date in the library.	1	2	3	4	5
7	Lack of full text databases in my field in the library.	1	2	3	4	5
8	Shortage of Internet access points in the library.	1	2	3	4	5
9	No information services designed to support DL at the library.	1	2	3	4	5
10	Librarians never completely answer my questions.	1	2	3	4	5
11	Lack of librarians' skills and knowledge in providing information services.	1	2	3	4	5
12	Frequent failure of the library system.	1	2	3	4	5
13	Library fails to market its services among DL stakeholders.	1	2	3	4	5
14	Absence of information literacy programmes in the academic library.	1	2	3	4	5
15	Weakness of library website: e.g. frequent stops and limited services.	1	2	3	4	5
16	Short loan (period and quantity).	1	2	3	4	5
Comments:						

1=Not offered	2=Don't know	3=Offered

16. Are the following information services currently offered by your academic library?

N	Variable			
1	Toll-free telephone	1	2	3
2	E-mail	1	2	3
3	Access to other Saudi academic libraries and use of their information services	1	2	3
4	Online access to wide area network (e.g., Internet, full text databases)	1	2	3
5	24/7 call centre	1	2	3
6	Information services unit to support DL programmes	1	2	3
7	Digitised Arabic and special collections to be used remotely	1	2	3
8	Study skill (effective reading, note taking, report writing, essay writing, research methods…etc)	1	2	3
9	Information literacy programmes offline/online (effective use of information resources/tutorials on using OPAC, online databases, e-resources...etc.)	1	2	3
10	Current awareness (alerting services)	1	2	3
11	Virtual reference desk	1	2	3
12	Photocopying materials	1	2	3
13	Document delivery of journals articles and other documents	1	2	3
14	Interlibrary loan	1	2	3
15	Interactive library web-page for searching, requesting materials, renewing materials, accesses to full text databases (digital library)…etc.	1	2	3
16	IRC (Internet Relay Chat) with librarian	1	2	3
17	Thinking skills tutorials	1	2	3
18	Access to course materials (lectures, exam papers, notes…etc)	1	2	3
19	Language support (search, translate…etc)	1	2	3
20	Direct access to the library system from home	1	2	3
21	Brochures about the library services	1	2	3
Comments:………				

17. What are the information services that you think the academic library should offer to support your study?

………
………..

1=Strongly Dissatisfied	2 = Dissatisfied	3 = Natural	4 = Satisfied	5 = Strongly Satisfied

18. How satisfied are you with the following training methods in using the academic library if they are available from your university library? (If one or more is not available, leave a blank)

N	Variable					
1	Small group (classes/workshops) run by the academic library.	1	2	3	4	5
2	Audio/visual instructions.	1	2	3	4	5
3	Printed manuals.	1	2	3	4	5
4	Web-based training course/tour.	1	2	3	4	5
5	Introduction about the academic library at the beginning of each semester.	1	2	3	4	5
6	One to one training.	1	2	3	4	5
Comments:						

B3: Attitudes toward the role of the academic library in supporting DL

1=Strongly Disagree	2 = Disagree	3 = Undecided	4 = Agree	5 = Strongly Agree

19. To what extent do you agree with the following regarding the role of the academic library in supporting DL programmes in Saudi higher education:

N	Statement					
1	It should be central to DL experience.	1	2	3	4	5
2	It should be an active member of the teaching group.	1	2	3	4	5
3	It should provide information service support to DL.	1	2	3	4	5
4	It should engage in developing DL programmes and provide information services support.	1	2	3	4	5
5	It should play an important role in supporting students' achievement.	1	2	3	4	5
6	It should extend services outside its walls to serve all DL students.	1	2	3	4	5
7	It should provide information literacy programmes to all DL stakeholders.	1	2	3	4	5
8	It should improve its ICT to meet DL stakeholders' needs.	1	2	3	4	5
Comments:						

1=Strongly Disagree	2 = Disagree	3 = Undecided	4 = Agree	5 = Strongly Agree

20. How much do you agree with these statements:

N	Statement					
1	Access to adequate library services and resources is essential for distance stakeholders and should be ensured.	1	2	3	4	5
2	Information literacy in academic libraries is a primary service in DL.	1	2	3	4	5
3	Information services for DL programmes have to be planned and separately funded in order to deliver equivalent library services and maintain the quality of teaching, learning and searching.	1	2	3	4	5
4	Universities providing DL in SA have the responsibility to support learning, teaching and searching by supporting them with information services.	1	2	3	4	5
5	Traditional library service support designed for on-campus users cannot meet DL stakeholders' needs.	1	2	3	4	5
6	Information services support provided by the academic library to support DL has to meet national, international and regional accreditation standards and professional association standards and guidelines.	1	2	3	4	5
7	Academic libraries have to be part of the planning, developing, evaluating and changing of DL programmes.	1	2	3	4	5
8	Academic libraries should have the primary responsibility in providing useful resources that can meet DL stakeholders' needs.	1	2	3	4	5
9	The academic library should be fully supported by the university to deliver the highest quality information services support to DL programmes.	1	2	3	4	5
10	Off campus users need more personalised services more than those on campus.	1	2	3	4	5
11	License agreements for accessing electronic information resources should include all DL stakeholders.	1	2	3	4	5

B4: Implementation of Information Services

1=Strongly Disagree	*2 = Disagree*	*3 = Undecided*	*4 = Agree*	*5 = Strongly Agree*

21. What is your opinion about the following alternatives in delivering information services to support DL programmes in Saudi higher education?							
N	*Statements*						
1	The academic library should be able to extend its services for all of its users, including DL learners.	1	2	3	4	5	
2	Academic libraries should hire an external information services provider in order to fulfil DL stakeholders' needs.	1	2	3	4	5	
3	The current information services provided by the academic library are satisfying DL students' needs.	1	2	3	4	5	
4	A consortium among Saudi academic libraries should provide all information services needed by all DL programmes.	1	2	3	4	5	
5	The Deanship of distance learning in each university should create its own electronic library to support its stakeholders.	1	2	3	4	5	
6	The national centre for e-learning and distance learning in MHE should have the responsibility to support all DL stakeholders' with all information services they need by creating a centralised information services centre.	1	2	3	4	5	
Comments:………							

22. Do you have any suggestion/s to develop information services support for DL programmes in Saudi higher education?
………
………
……...

Would you be interested in being interviewed to discuss more issues about the role of academic libraries in supporting DL programmes in Saudi higher education?	
Yes	1
No	2
If YES, please provide your contact information as follows: **Name: ………………………………Work: ………......……………..…………………………………….. Tel. #: …………………….……Mobile#: ......…………..............……………………………………….. E-Mail Address: ………………………………...…………..……………………………............**	

Appendix (2)
Learners' Questionnaire

The Role of Academic Libraries in Supporting Distance Learning in Saudi Higher Education: A Case Study Approach

Dear Participant,

My name is Fahad M. Alfrih and I am an I.P.A. faculty member. Currently, I am working on my PhD at the Department of Information Science at Loughborough University in the UK. My work has an emphasis on distance learning in Saudi Arabia.

I would like first to thank you in advance for taking the time to answer this questionnaire which has been designed to collect data regarding the provision of information services that support distance learning programmes.

You have been selected to answer this questionnaire and participation is voluntary. This questionnaire will take approximately 20 minutes. The study and this questionnaire are designed for educational purposes.

The data will be analysed and interpreted by the researcher himself and is completely confidential. As a participant, you do not have to write your name on the questionnaire.

For further information, please contact the researcher by one of the following methods:
Mobile # 0505210573
E-mail: alfrih@hotmail.com
Institute of Public Administration (IPA), Riyadh, Saudi Arabia.

Once again, I appreciate your time and your cooperation.
Sincerely,

Fahad M. Al-Frih
PhD. Student
Dept. of Information Science Dep.
Loughborough University, UK
http://www.lboro.ac.uk/

Dr. Mark Hepworth
Supervisor
Dept. of Information Science Dep.
Loughborough University, UK
http://www.lboro.ac.uk/

Learners' Questionnaire (Q2)

DL: Distance learning (study away from campus).

Part A: Background

Please tick (√) in the appropriate box:

1. University & College		
Imam Mohammad Bin Saud Islamic University (IMBSIU)	Da'wa and Islamic Media	1
	Arabic Language	2
	Islamic Foundations	3
	Islamic Law	4
King Abdul-Aziz University (KAU)	Art and Humanities	5
	Economics and Administration	6

2. Your department: …………..…….................………………………………………………………….

3. Gender	
Male	1
Female	2

4. Age	
18-24	1
25-30	2
31-40	3
41-50	4
Over 50	5

5. Level of study: ....

1= Poor	**2= Fair**	**3= Good**	**4= Very Good**	**5= Excellent**

6. How would you rate your proficiency in the following:							
N	Variable						
1	Computer applications (MS office...Etc.).	1	2	3	4	5
2	Internet	1	2	3	4	5
3	English language	1	2	3	4	5

Part B: Consists of four sections as follows:

B1. Distance Learning Programmes Services

1=Strongly Disagree	*2 = Disagree*	*3 = Undecided*	*4 = Agree*	*5 = Strongly Agree*

7. Please indicate your opinion regarding every statement from the following concerning existing DL programmes:					
N	*Variable*					
1	My instructors encourage me to use the academic library.	1	2	3	4	5
2	It is suggested by the DL regulations to use the academic library and other information resources.	1	2	3	4	5
3	I do not need to use the academic library to support my study.	1	2	3	4	5
4	There is no support from the academic library for DL programmes.	1	2	3	4	5
5	The academic library usually runs training programme during my study in how to use the academic library (e.g. using e-resources, library catalogue...etc).	1	2	3	4	5
6	Current DL programmes still depend on textbooks.	1	2	3	4	5
7	There is inequity between on campus students and DL students regarding the	1	2	3	4	5

	availability of information services support.					
8	I always use information resources (e-journals, e-books, printed sources) other than text books to support my study.	1	2	3	4	5
9	I prefer to buy books and journal articles instead of using the academic library.	1	2	3	4	5
10	Instead of using the academic library, DL courses should include all the necessary reading materials.	1	2	3	4	5
11	It is not required to do homework or to do research papers in my current study.	1	2	3	4	5

Comments:

1=Not at all	*2=Minor extent*	*3= Undecided*	*4=Moderate extent*	*5=Major extent*

8. To what extent have the following affected your study by distance?

N	Factors					
1	Absence of information services support from the academic library	1	2	3	4	5
2	Lack of ICT support	1	2	3	4	5
3	Limited library resources	1	2	3	4	5
4	Lack of Internet access	1	2	3	4	5
5	Overload of work (lack of time)	1	2	3	4	5
6	Lack of interaction between DL learners and instructors	1	2	3	4	5
7	Lack of adopting new technologies such as web 2.0	1	2	3	4	5
8	Distant location of academic library	1	2	3	4	5

Comments:

B2: Current & Future of Academic Library Services

1=Never	*2=Rarely (once a semester)*	*3=Undecided*	*4=Often (every month*	*5=Very often (every week)*

9. How often do you use the following?

N	Variable					
1	Your university library	1	2	3	4	5
2	The nearest university library	1	2	3	4	5

Others(please specify):

10. How do you usually use the academic library?

N	Communication Method					
1	Personally	1	2	3	4	5
2	By E-Mail	1	2	3	4	5
3	By Telephone	1	2	3	4	5
4	Third Party	1	2	3	4	5
5	Academic Library Web Site	1	2	3	4	5

Others (please specify):

11. What type of resources do you use?

N	Variable					
1	Printed resources	1	2	3	4	5
2	Electronic resources	1	2	3	4	5
3	Audio/visual resources	1	2	3	4	5

Comments:

12. To what extent do you usually acquire information for the following?

N	Variable					
1	Support my current study	1	2	3	4	5
2	Keep up-to-date	1	2	3	4	5
3	Leisure	1	2	3	4	5

Others(please specify):

1=Not at all	2=Minor extent	3= Undecided	4=Moderate extent	5=Major extent

13. To what extent do you think any of the following are affecting your use of the academic library?

N	Factors					
1	Fear of using the academic library automated system.	1	2	3	4	5
2	I do not know how to get the information myself.	1	2	3	4	5
3	Academic library location (far from my house).	1	2	3	4	5
4	Opening hours.	1	2	3	4	5
5	There are not enough resources (books, journals, e-resources).	1	2	3	4	5
6	Resources are out of date in the library.	1	2	3	4	5
7	Lack of full text databases in my field in the library.	1	2	3	4	5
8	Shortage of Internet access points in the library.	1	2	3	4	5
9	No information services designed to support DL at the library.	1	2	3	4	5
10	Librarians never completely answer my questions.	1	2	3	4	5
11	Lack of librarians' skills and knowledge in providing information services.	1	2	3	4	5
12	Frequent failure of the library system.	1	2	3	4	5
13	Library fails to market its services among DL stakeholders.	1	2	3	4	5
14	Absence of information literacy programmes in the academic library.	1	2	3	4	5
15	Weakness of library website: e.g. frequent stops and limited services.	1	2	3	4	5
16	Short loan (period and quantity).	1	2	3	4	5

Comments:

1=Not offered	2=Don't know	3=Offered

14. Are the following information services currently offered by your academic library?

N	Variable			
1	Toll-free telephone.	1	2	3
2	E-mail.	1	2	3
3	Access to other Saudi academic libraries and use of their information services.	1	2	3
4	Online access to wide area network (e.g., Internet, full text databases).	1	2	3
5	24/7 call centre.	1	2	3
6	Information services unit to support DL programmes.	1	2	3
7	Digitised Arabic and special collections that can be used remotely.	1	2	3
8	Study skills (effective reading, note taking, report writing, essay writing, research methods…etc).	1	2	3
9	Information literacy programmes offline/online (effective use of information resources/tutorials on using OPAC, online databases, e-resources...etc.).	1	2	3
10	Current awareness (alerting services).	1	2	3
11	Virtual reference desk.	1	2	3
12	Photocopying materials.	1	2	3
13	Document delivery of journals articles and other documents.	1	2	3
14	Interlibrary loan.	1	2	3
15	Interactive library web-page for searching, requesting materials, renewing materials, accesses to full text databases (digital library)…etc.	1	2	3
16	IRC (Internet Relay Chat) with librarian.	1	2	3
17	Thinking skills tutorials.	1	2	3
18	Access to course materials (lectures, exam papers, notes…etc).	1	2	3
19	Language support (search, translate…etc).	1	2	3
20	Direct access to the library system from home.	1	2	3
21	Periodically brochures about the library services.	1	2	3

Comments:

15. What are the information services that you think the academic library should offer to support your study?

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………………………………………………………………..………………………………………………………………

1=Strongly Dissatisfied	2 = Dissatisfied	3 = Natural	4 = Satisfied	5 = Strongly Satisfied

16. How satisfied are you with the following training methods in using the academic library if they are available from your university library? (If one or more is not available leave a blank)

N	Variable					
1	Small group (classes/workshops) run by the academic library.	1	2	3	4	5
2	Audio/visual instructions.	1	2	3	4	5
3	Printed manuals.	1	2	3	4	5
4	Web-based training course/tour.	1	2	3	4	5
5	Introduction about the academic library at the beginning of each semester.	1	2	3	4	5
6	One to one training.	1	2	3	4	5
Comments:						

B3: Attitudes toward the role of academic library in supporting DL

1=Strongly Disagree	2 = Disagree	3 = Undecided	4 = Agree	5 = Strongly Agree

17. To what extent do you agree with the following regarding the role of the academic library in supporting DL programmes in Saudi higher education:

N	Statement					
1	It should be central to DL experience.	1	2	3	4	5
2	It should be an active member of the teaching group in DL.	1	2	3	4	5
3	It should provide information service support to DL.	1	2	3	4	5
4	It should engage in developing DL programmes and provide information services support.	1	2	3	4	5
5	It should play an important role in supporting students' achievement.	1	2	3	4	5
6	It should extend services outside its walls to serve all DL students.	1	2	3	4	5
7	It should provide information literacy programmes to all DL stakeholders.	1	2	3	4	5
8	It should improve its ICT to meet DL stakeholder needs.	1	2	3	4	5
Comments:						

B4: Implementation of Information Services

1=Strongly Disagree	2 = Disagree	3 = Undecided	4 = Agree	5 = Strongly Agree

18. What is your opinion about the following alternatives in delivering information services to support DL programmes in Saudi higher education?

N	Statements					
1	The academic library should be able to extend its services for all of its users, including DL learners.	1	2	3	4	5
2	Academic libraries should hire an external information services provider in order to fulfil DL learners' needs.	1	2	3	4	5
3	The current information services provided by the academic library are satisfying DL students' needs.	1	2	3	4	5
4	A consortium among Saudi academic libraries should provide all information services needed by all DL programmes.	1	2	3	4	5
5	The Deanship of distance learning in each university should create its own electronic library to support its stakeholders.	1	2	3	4	5
6	The national centre for e-learning and distance learning in MHE should have the responsibility to support all DL stakeholders with all information services they need by creating a centralised information services centre.	1	2	3	4	5
Comments:						

19. Do you have any suggestion/s to develop information services support for DL programmes in Saudi higher education?

………

……

Would you be interested in being interviewed to discuss more issues about the role of academic libraries in supporting DL programmes in Saudi higher education?	
Yes	1
No	2

If YES, please provide your contact information as follows:
Name: …………………………………Work: ………........……………….……………………………..……………
Tel. #: ………………………….……Mobile #:........…………............……………..…………………
E-Mail Address: ……………………………….…………….…...………………………………………………

Appendix (3)
Interviewees' Questions

The Role of Academic Libraries in Supporting Distance Learning in Saudi Higher Education: A Case Study Approach

Dear Participant,

My name is Fahad M. Alfrih and I am an I.P.A. faculty member. Currently, I am working on my PhD at the Department of Information Science at Loughborough University in the UK. My work has an emphasis on distance learning in Saudi Arabia.

I would like first to thank you in advance for sparing the time to be interviewed and to discuss some issues which will help enrich this study regarding the provision of information services in supporting distance learning programmes.

You have been selected for this interview because you are a key player in developing higher education in Saudi Arabia and therefore your views are essential to this study. This interview will take approximately 45 minutes. The study and this interview are designed for educational purposes. The outcomes of this study may help higher education in Saudi Arabia.

The interview's outcomes will be analysed and interpreted by the researcher himself confidentially. As a participant, you may withdraw at any time.

For further information, please contact the researcher by one of the following methods:
Mobile # 0505210573
E-mail: alfrih@hotmail.com
Institute of Public Administration (IPA), Riyadh, Saudi Arabia.

Once again, I appreciate your time and your cooperation.
Sincerely,

Fahad M. Al-Frih	**Dr. Mark Hepworth**
PhD. Student	**Supervisor**
Dept. of Information Science	**Dept. of Information Science**
Loughborough University, UK	**Loughborough University, UK**
http://www.lboro.ac.uk/	**http://www.lboro.ac.uk/**

Name:………………………………….., Years in this position:………....................................………………

Tel no.: ……………	Date:…………………….	Time:………………………..……

1. Gender		*2. Nationality*		*3. Highest academic qualification*	
Male	**1**	**Saudi**	**1**	**PhD. Degree**	**1**
Female	**2**	**Non-Saudi**	**2**	**Master's Degree**	**2**
				Bachelor's Degree	**3**
				Other:	**4**

4. From where did you obtain your last degree?	
Saudi Arabia	**1**
Arab country	**2**
Western country	**3**
Other (specify) :	**4**

A. Deputy Minister of the Ministry of Higher Education for academic affairs

1. What are the problems that are facing higher education in Saudi Arabia (especially related to quantity and quality)?
2. What are the short and long-term plans that have been made to deal with DL programmes?
3. What are the initiatives for developing this kind of education?
4. What is the position of academic libraries in terms of DL programmes now and in the future?
5. Do the current DL programmes fulfil and achieve the government's development plan?
6. Are there any ongoing or future initiatives toward supporting DL programmes with information services?
7. What kind of information services support should DL receive (e.g. study skills, translation, study skills, e-resources, 24/7 call centre…etc)?
8. What kind of support should the academic library provide?
9. Are there any ideal alternatives you would prefer to be used to support DL programmes with the information services they need?
10. What is your opinion about the idea of establishing an information centre to support DL programmes in Saudi higher education? Do you see any problems that this model could face?
11. Do you have any comments, suggestions and further details regarding the role of the academic library in supporting DL programmes or any issues related to it?

B. Director of the National Centre for E-learning & Distance Learning in the Ministry of Higher Education

1. What are the goals for spreading DL in higher education?
2. What are your plans to do so?
3. Do the current DL programmes fulfil and achieve the government's development plan?
4. Was any consideration given to academic libraries and other information resources?
5. Are there any guidelines and policies that have been made to run DL? Is there any mention of the role of the academic library?
6. What are your initiatives to support DL programmes regarding information resources?
7. What kind of information services support should DL stakeholders receive (e.g. study skills, translation, study skills, e-resources, 24/7 call centre…etc)?

8. Are there any ongoing or future initiatives toward supporting DL programmes with information services?
9. Is there any alternative you would prefer to be used to support DL programmes with the information services they need?
10. What is your opinion about the idea of establishing an information centre to support DL programmes in Saudi higher education? Do you see any problems that this model could face?
11. Do you have any comments, suggestions and further details regarding the role of the academic library in supporting DL programmes or any issues related to it?

D. Consultant to the Deputy Minister of the Ministry of Higher Education for Academic Affairs

1. What are the problems that are facing higher education in Saudi Arabia (especially related to quantity and quality)?
2. What are the short and long-term plans that have been made to deal with DL programmes?
3. What are the initiatives for developing this kind of education?
4. What is the position of academic libraries in terms of DL programmes now and in the future?
5. Do the current DL programmes fulfil and achieve the government's development plan?
6. Are there any ongoing or future initiatives toward supporting DL programmes with information services?
7. What kind of information services support should DL receive (e.g. study skills, translation, study skills, e-resources, 24/7 call centre…etc)?
8. What kind of support should the academic library provide?
9. Are there any ideal alternatives you would prefer to be used to support DL programmes with the information services they need?
10. What is your opinion about the idea of establishing an information centre to support DL programmes in Saudi higher education? Do you see any problems that this model could face?
11. Do you have any comments, suggestions and further details regarding the role of the academic library in supporting DL programmes or any issues related to it?

E. The Deputy of Postgraduates Studies and Research (the project manager of the e-library at the Economics and Administration College, KAU)

1. What are your perceptions and views concerning the academic library and its roles in supporting DL programmes?
2. What is the reason behind building an e-library in the College of Economics and Administration?
3. What is the role of this library?
4. Have you had any thoughts about distance learners in creating this library? How/why?
5. What do you think about distance learners' right to be supported with all the information services that students on campus can access?
6. What kind of information services support should DL stakeholders receive (E.g. study skills, translation, study skills, e-resources, 24/7 call centre…etc)?
7. What are your perceptions and views regarding the prospect of establishing an information centre model to support DL stakeholders? Do you see any problems that this model could face?
8. Do you have any comments, suggestions and further details regarding the role of the academic library in supporting DL programmes or any issues related to it?

F. Deanships of Academic Libraries in IMBSIU and KAU

1. What is the role and position of the academic library and its information services within the university environment?
2. Do you have co-operation with other academic libraries in the country regarding supporting DL programmes?
3. Does the library get involved in developing DL programmes?
4. What kind of challenges/problems does the library face? Do these problems affect supporting DL programmes?
5. Are there any particular considerations regarding supporting DL programmes that you regard as important?
6. What kind of information services support should DL stakeholders receive (e.g. study skills, translation, study skills, e-resources, 24/7 call centre…etc)?
7. What kinds of services does the library offer to support DL programmes?
8. Does the library provide information literacy programmes in using the library for on- and off-campus students?
9. Are there any plans, policies and guidelines to support DL programmes and provide them with special services?
10. What is your opinion of the idea of establishing an information centre designed for DL programmes in all Saudi higher education? Do you see any problems that this model could face?
11. Do you have any comments, suggestions and further details regarding the role of academic library in supporting DL programmes or any issues related to it?

G. Deputies of the Academic Libraries in IMBSIU and KAU

1. Do you have a special interest in/responsibility for the DL programmes?
2. What are the current problems/obstacles facing the academic library?
3. What kind of information services does the library offer?
4. Do you have any ongoing or future plan to support DL programmes with information services?
5. Does your library provide information services to off-campus users? If so, what are they?
6. What kind of information services support should DL stakeholders receive (e.g. study skills, translation, study skills, e-resources, 24/7 call centre…etc)?
7. Do you have any involvement in selecting, subscribing to and signing for electronic resources' contracts such as full text and abstracts databases, e-books, e-journals and other e-resources? If so, how?
8. Does the library evaluate its users' needs on a regular basis? Does it include the views of DL programme stakeholders?
9. Does the library policy have any regulations or instructions regarding DL programmes? If so, what are they?
10. What do you think is the most appropriate way/method to support distance learners/teachers with all the information services they need?
11. What is your opinion about the idea of establishing an information centre to support DL programmes in Saudi higher education? Do you see any problems that this model could face?
12. Do you have any comments, suggestions and further details regarding the role of the academic library in supporting DL programmes or any issues related to it?

H. Department managers of Information Services at IMBSIU and KAU libraries

1. How much support do you give distance learners during a semester?
2. Do you have any problems that prevent you from providing qualified information services (shortages in staff, equipment, IT support, etc.)?
3. What kind of users do you usually deal with (on-site learners, off-campus learners, etc.)?
4. What kind of information services support does your library provide?
5. What kind of information services support should DL stakeholders receive (e.g. study skills, translation, study skills, e-resources, 24/7 call centre…etc)?
6. Is there any plan to extend these services to include more users?
7. Do you usually provide special information services to DL programme stakeholders? And if you do, what are they?
8. Do you have any arrangements to support DL programmes? Do you have any plans to do so? What are these arrangements?
9. How many requests does your department receive from DL students each semester?
10. Does the library provide training programmes in using the library? If yes, for whom are these designed? Are these based on site or offered online or by other means? Are distance learners required to attend such training?
11. Do you have any ideas about the best way to support distance learners with all the information services they need?
12. What is your opinion about the idea of establishing an information centre to support DL programmes in Saudi higher education? Do you see any problems that this model could face?
13. Do you have any comments, suggestions and further details regarding the role of the academic library in supporting DL programmes or any issues related to it?

I. ICT Department managers at IMBSIU and KAU Academic Libraries

1. What kind of problems does the library have regarding ICT infrastructure?
2. What barriers do you encounter that negatively affect the library services in terms of machines, IT technicians, the Internet, and so on?
3. How easy is it for off- campus users to access the library and its resources?
4. Do you usually provide help and support to DL students regarding using library equipment such as the Internet, databases, library system…etc?
5. Do you provide online or on site tutorials and training in using some important applications such as searching the Internet, MS office …etc?
6. Do you have any projects or initiatives for digitising library collections? If yes, who is going to carry them out?
7. Do you have any involvements in selecting, subscribing to and signing for electronic resources' contracts such as full text and abstracts databases, e-books, e-journals and other e-resources?
8. Do you provide sfx (link server) services to help users to allocate resources from several databases?
9. Do you have any cooperation with the computer centre in the university? If so, can you describe this cooperation?
10. Do you have any plans to extend the library services to more users, especially to distance learners?
11. Does the library provide online services, such as searching the library catalogue, accessing the library databases, requesting information, searching the Internet, and so on?
12. Does the library have a web site that can satisfy users' needs? What kind of services can users get from the library web-page?
13. What kind of information services support should DL stakeholders receive (e.g. study skills, translation, study skills, e-resources, 24/7 call centre…etc)?

14. Do you have any thoughts or ideas about supporting distance learners?
15. What is your opinion about the idea of establishing an information centre to support DL programmes in Saudi higher education? Do you see any problems that this model could face?
16. Do you have any comments, suggestions and further details regarding the role of the academic library in supporting distance learning programmes or any issues related to it?

J. Directors of Computer Centres

1. What are the functions, roles and policies of the computer centre?
2. What is your relationship with the academic library?
3. Does the centre get involved in supporting DL programmes? If so, how?
4. Does the centre work with the deanship of distance learning and the academic library to support distance learners?
5. Are the current ICT infrastructures in the academic library suiTable to support distance learners? If no, are there any plans to improve the academic library infrastructure in order to provide the information services support for distance learners?
6. What kind of information services support should DL stakeholders receive (e.g. study skills, translation, study skills, e-resources, 24/7 call centre…etc)?
7. Do you intend to help the library to digitise some of its collections?
8. Do you have any involvement in signing for e-resources' contracts? Do you consider off-campus students?
9. Do you provide sfx (link server) services to help users to allocate resources from several databases?
10. Do you provide a helpline to support DL students in dealing with technologies? Do you provide training programmes/tutorials in some important applications such as MS applications, Internet search…etc? If so, how?
11. What do you think about the current ICT infrastructure in Saudi Arabia? Is it designed such that distance learners can gain access to more information services off campus?
12. How realistic is it to establish an information centre model to provide information services to distance learning programmes in Saudi higher education? Do you see any problems that this model could face?
13. Do you have any comments, suggestions and further details regarding the role of the academic library in supporting DL programmes or any issues related to it?

K. College Deans

1. Are there any problems in your colleges regarding DL programmes? If so what kind of problems do distance learners and teachers face in the current system?
2. Do you think that introducing and providing DL programmes as they are at present satisfy learners' needs and fulfil their expectations? Do they fulfil the government's development plan?
3. Do you have any plans to improve the current DL programmes and/or extend them to cover more subjects?
4. What problems do you perceive there are in relation to DL as far as teachers and learners are concerned?
5. What are your perceptions and views concerning the academic library and its roles in supporting DL programmes?
6. What do you think about distance learners' right to be supported with information services that students on campus can access?
7. What kind of information services support should DL stakeholders receive (e.g. study skills, translation, study skills, e-resources, 24/7 call centre…etc)?

8. What are your perceptions and views regarding the prospect of establishing an information centre model to support DL stakeholders? Do you see any problems that this model could face?
9. Do you have any comments, suggestions and further details regarding the role of the academic library in supporting DL programmes or any issues related to it?

L. Head of Information Science Department at IMBSIU and KAU

1. What do you think about the role of academic libraries in supporting DL programmes?
2. Do you think that the academic library plays a unique role in supporting the current DL programmes?
3. What is your role in helping the library to improve its services and reach distance learners?
4. Do you believe that the academic library information services support to DL programmes has an effect on distance learners' achievements?
5. What do you think are the most appropriate method/s to support DL programmes with the information services they need?
6. What kind of information services support should DL stakeholders receive (e.g. study skills, translation, study skills, e-resources, 24/7 call centre…etc)?
7. Do you offer courses in information literacy which can help graduates to work in libraries and which can also provide support to users including DL?
8. Do you offer courses in dealing with e-resources such as selecting, making payments, negotiating with funders…etc?
9. Do you offer courses in information services? If yes, is there any topic related to supporting and serving DL students?
10. What is your opinion about the idea of establishing an information centre to support DL programmes in Saudi higher education? Do you see any problems that this model could face?
11. Do you have any comments, suggestions and further details regarding the role of the academic library in supporting DL programmes or any issues related to it?

M. Deanships of DL Managers

1. What are the current problems facing DL programmes?
2. What are the solutions to these problems?
3. What is the goal in spreading DL in higher education?
4. What are your plans for doing this?
5. Do the current DL programmes fulfil and achieve the government's development plan?
6. What relationship do you have with the academic library?
7. What guidelines and policies have been made to run DL? Was there any mention of the role of the academic library?
8. What initiatives do you have to support DL programmes in terms of information services and resources?
9. What kind of information services support do you think distance learners and teachers require?
10. Do you think the academic library is playing its role in supporting current DL programmes? If so, how?
11. What do you expect from the academic library regarding supporting DL programmes?
12. What kind of information services support should DL stakeholders receive (E.g. study skills, translation, study skills, e-resources, 24/7 call centre…etc)?
13. Do you usually involve the academic library in developing DL programmes?
14. What kinds of problems are being addressed by teachers and learners in DL programmes? Are any of them related to the academic library and its services?

15. Do you usually evaluate DL programmes? If yes, what are the most frequent results that you get from this evaluation?
16. What is your opinion about the idea of establishing an information centre to support DL programmes in Saudi higher education? Do you see any problems that this model could face?
17. Do you have any comments, suggestions and further details regarding the role of the academic library in supporting DL programmes or any issues related to it?

N. Instructors' interview

1. What are the main problems you usually face during your current teaching?
2. How do you usually overcome these problems?
3. What resources do you use? Do you find these resources adequate or not?
4. What do you think about the role of academic library in supporting your teaching as a distance teacher?
5. What support do you want from the library?
6. Is there a distinction between how distance and non-distance students are treated?
7. Do you have any idea about the information services being provided by your university library? If so, how did you find out? What information services are provided by the library?
8. Do you have easy access to the Internet in your office and in the place where you live?
9. Do you have any frequent contact between you and your distance learners during the semester?
10. Do you need to use the academic library during your teaching? If so, why?
11. Precisely, what do you want the university library to do in order to support you with the information services that you may need during your teaching by distance?
12. Who is responsible for making the university library and its services a part of your distance teaching (the DL deanship, the college, the university library...etc?) and how do they do this?
13. Have you had any previous training in using your AL?
14. What kind of training do you need from your academic library? How should this be done?
15. Do you have any suggestions to provide quality information services to you and students studying by distance (e.g. improve current services in the library create an information centre, use an external provider...etc)?

O. Learners' interview

1. What are the main problems you usually face during your current study?
2. How do you usually overcome these problems?
3. What resources do you use? Do you find these resources adequate or not?
4. What do you think about the role of the academic library in supporting your study as a distance learner?
5. What support do you want from the library?
6. Is there a distinction between how distance and non-distance students are treated.
7. Do you have any idea about the information services being provided by your university library? If so, how? What information services are provided by the library?
8. Do you have easy access to the Internet in the place where you live?
9. Do you have any frequent contact between you and your teachers during the semester?
10. Do you need to use the academic library during your study? If so, why?
11. Precisely, what do you want the university library to do in order to support you with the information services that you may need during your study?

12. Who is responsible for making the university library and its services a part of your study (the DL deanship, the college, the teacher, the university library...etc?) and if so, how?
13. Have you had any previous training in using your AL?
14. What kind of training do you need from your academic library? If so, what sort of training?
15. Do you have any suggestions to provide quality information services to you and other students studying by distance (e.g. improve current services in the library, create an information centre, use an external provider...etc)?

Appendix (4)
Interviewees' daily tasks

A. Deputy Minister of the MHE for Academic Affairs

The major function of the Deputy Minister of the Ministry of Higher Education for Academic Affairs is to implement the goals and policies of the Ministry in the areas of education. Some of his duties can be explained as follows:

- Overseeing the administrative and technical units associated with him, coordinating their work to ensure good performance, and regulating their relations with universities and the rest of the Ministry to achieve its objectives efficiently and effectively.

- Studying plans and programmes, rules and instructions provided by the General Administration of university education, together with the public administration of the studies and information regarding the organisation of work, approved in accordance with the powers conferred upon him.

- To achieve the necessary level of coordination between the Ministry of Higher Education, universities and other education-related departments with regard to common issues related to educational matters.

- To determine the type and extent of relations between the Ministry and the universities outside the Kingdom in the light of the Ministry's policy and in accordance with the directives of the Minister.

- To examine the agendas and issues raised in the seminars organised by the Ministry and to be involved in the decisions in the light of the Ministry's policy, according to the powers vested in him.

- To examine the difficulties and problems related to the functioning of the associated administrative units, and to work to overcome and resolve them.

- To receive proposals for development work in the associated administrative units, to study these and to give approval.

- To supervise the preparation of a draft budget for the educational sector at the Ministry.

- To prepare periodic reports on the activities undertaken by the administrative units associated with the Ministry (Ministry of Higher Education 2007).

Additionally, he plays a crucial role in controlling and managing public administration, information studies, the information centre and library, computer automation and technical information, the planning department and the development unit.

B. Director of the E-learning and DL Centre at the MHE

This centre has been lately established to control and develop the application of e-learning and DL in Saudi HE.

C. Deanships of Academic Libraries in IMBSIU and KAU

People in charge of the academic library usually set up plans and make the necessary contacts with the highest ranking personnel in universities. They usually discuss academic library issues with these personnel and gain any necessary support.

D. Deputies of the Academic Libraries for technical support in IMBSIU and KAU

People in charge of this position are responsible for departments that are related to customers, such as information services, acquisitions, cataloguing, electronic services and more. They have the role of running and supporting these services and must apply the library's plans and policies according to their resources.

E. Department Managers of Information Services at IMBSIU and KAU

These managers are in charge of all kinds of information services provided to users and put into operation all the plans set by the library regarding such areas. They are very important people to be interviewed in order for the researcher to look closely at their tasks and problems, together with barriers that can negatively affect the provision of these services to users, especially to distance learning programme stakeholders. It is also necessary to find out what services are required by users.

F. ICT Dept. managers in IMBSIU and KAU Academic Libraries

These personnel have to set up and operate plans to provide electronic information services in the academic libraries.

G. Directors of Computer centres in IMBSIU and KAU

These are usually appointed by the university rector to plan, develop and manage all ICT technologies on the campus.

H. College deans

College deans have departments that provide distance learning programmes and are usually responsible for the administration of their colleges. They are generally appointed by the university president to run their colleges in financial and managerial terms. They usually organise weekly meetings with department heads to discuss any issues related to improving learning and teaching.

I. Heads of Information Science Dept. at IMBSIU, KAU and KSU

These personnel usually run their departments, make plans for improvements, and evaluate teaching and learning in these departments. They also play a unique role in helping the academic library to apply its plans and develop its services. For example, they

help to provide training for library staff and prepare training programmes for library users by asking department faculty to do this.

J.   Distance Learning Deans at IMBSIU and KAU

These are in charge of planning and running DL programmes in their universities; they also have the task of developing and improving the current distance learning programmes and of trying to adopt the most advanced technologies in teaching and learning for use at distance. They are the people who can evaluate the existing programmes and also provide essential information about the future.

Appendix (5)
Sample of Interview Analysis

**Interviewer: Deputy of academic libraries in IMBSIU**
(DALI7)

AL = Academic Library	DL =Distance Learning	ISs= information Services	MHE=Ministry of Higher Education	HE=Higher Education	IRs= Information Resources	IC=Information Centre

Q#	(1) (Questions / Categories (Themes/Issues) First-Order Category	Answer	(2) Subcategories (Sub themes / Sub issues) Second-Order Category	(3) Sub-sub categories (Sub-Sub themes / Sub-Sub issues) Third -Order Category	Note	Quotes
1	Do you have a special interest in/responsibility for the DL programmes? **Responsibility with DL programmes**	We have no relation, coordination and cooperation with the DL deanship regarding providing their stakeholders with information services. Their stakeholders can use the library as any student in the university. We have developed several archiving projects for many of our library collections and will be available in the web which can help learners including distance learners to use them. However, we usually receive several calls and several e-mails asking for information services and we usually answer them and distance learners could be among them. In short, we have had no relation whatsoever with the DL deanship regarding the provision of supporting their stakeholders with information services.	(1) No;			**"In short, we have had no relation whatsoever with the DL deanship regarding the provision of supporting their stakeholders with information services."**
2	What are the current problems/obstacles facing the academic library? **Problems & obstacles facing AL**	There are several obstacles that we experience these days as follows: First: The most important obstacle we usually face is the shortage of staff which affects our plans; Second: The increase of staff moving out from our library to look for better jobs; Third: Lack of training opportunity for employees; Fourth: Poor skills in dealing with technologies; Fifth: Shortage of promotions giving to qualified staff; Six: Shortage of staff productivity; Seventh: the decreasing of library size due to creating a new college (Computer and Information College) in part of the library building which forced us to squeeze our collections and decrease our services; Eighth: Shortage, fewness and decrease of users using our library due to poor marketing of our services from our library itself and because of the study mode in the university which depends on text books only; Tenth: shortages in budget in the past few years was very common problems in running the library, but in the recent years this problem has been solved and yet the budget has been increased according to the development of the	(1) staff; (2) library building; (3) marketing; (4) teaching system; (5) budget; (6) ICT;	1.1 shortages; 1.2 increase staff quitting job; 1.3 lack of continuing training/education; 1.4 illiterate in IT; 1.5 depression for not getting promotions; 1.6 law productivity; 2.1 decreasing library size; 3.1 poor marketing; 4.1 count on text book and handouts; 4.2 less research assignments; 5.1 increasing library budget has forced us to work hard and yet exams our skills to deal with it; 6.1 library server is linked with the university server and the library link is	decrease our services;	**"These problems and obstacles especially the shortages of marketing plans are slowing our services and we hope to work toward solve this."**

		economy; Eleventh: Technical problems in the information and communication technology in the university and in the library which hinder our efforts to provide decent services because our server is linked with the university server and any stop or breakdown happened to the university server will affect our services and yet users get sick and tired from this breakdown. These problems and obstacles, especially the shortages of marketing plans, is slowing our services and we hope to work toward solving it.		based on the university home page and any stop to the university home page (which frequently happened) will affect our services;		
3	What kind of information services does the library offer? IS offered by AL	We offer several services such as reference services, access to the internet, web page, circulation, copy centre, and online databases.	(1) information services; (2) internet; (3) library web page; (4) borrowing services; (5) copy materials; (6) online databases;			
4	Do you have any ongoing or future plan to support DL programmes with information services? Plans to support DL programmes with IS	In the last few days we have written a new strategy as requested by the university administration dealing with distance learning programmes which describe the services that should be provided to DL programme stakeholders. The main element of this strategy is to build a new library portal which can help to support DL programme stakeholders. This strategy has not been finalised by the university administration and I believe, if approved, will increase the attention and the services for this important segment of the university.	(1) build new library strategy for the first time;	1.1 it mentioned supporting DL stakeholders; 1.2 design new library portal which can help in supporting DL stakeholders;		
5	Does your library provide information services to off-campus users? If so, what are they? IS for DL stakeholders	Formally, we don't have any information services designed for DL stakeholders but they can use all our services as any student in the university by visiting the library or by the library web site.	(1) No IS designed for DL stakeholders;			
6	What kind of information services support should DL stakeholders receive (e.g. study skills, translation, study skills, e-resources, 24/7 call centre…etc)? IS that DL stakeholders should receive	Accessing to online databases through our library web site is very important and has to be guaranteed for any user including DL stakeholders but we need some cooperation with the DL deanship to think about it and to set the rules to do it. In addition, translation is a very important service which we can't provide at this moment with the obstacles that I have mentioned. It is beyond our duty, but there is a department in the university which can provide this service with a charge. Reference desk design for DL stakeholders is very important, but we have not many distance learners asking for our services that can force us to help them or to set up services for them 24/7.	(1) online access to databases; (2) translation; (3) reference desk;			**"Reference desk design for DL stakeholders is very important, but we have not many distance learners asking for our services that can force us to help them or to set up services for them 24/7. "**

7	Do you have any involvement in selecting, subscribing to and signing for electronic resources' contracts such as full text and abstracts databases, e-books, e-journals and other e-resources? If so, how? Relation with E-resources	According to the academic libraries' consortium in subscribing in databases we select databases that we prefer to have and give it to the consortium administrator which is King Saud University to subscribe in it according to the consortium rules. Databases that don't match the consortium criteria will be rejected and the academic library can subscribe to these individually. However, as DL stakeholders are part of the university, they can use databases as any student and there is no need for this to be stated in the contract.	(1) selection; (2) subscribing in databases not covered by the consortium; (3) There is nothing related to DL stakeholders in subscribing to the databases;		"However, as DL stakeholders are part of the university, they can use databases as any student and there is no need for this to be stated in the contract. "
8	Does the library evaluate its users' needs on a regular basis? Does it include the views of DL programme stakeholders? AL Users' Evaluation	We don't have annual evaluation for our library services, but we do it when we think we need to do it. The previous evaluations have not included DL stakeholders and I believe the new evaluation will remain the same if the university still ignoring DL stakeholders.	(1) rarely; (2) it doesn't include DL stakeholders;		"The previous evaluations have not included DL stakeholders and I believe the new evaluation will remain the same if the university still ignoring DL stakeholders. "
9	Does the library policy have any regulations or instructions regarding DL programmes? If so, what are they? AL policy and DL stakeholders	I believe there is a clear statement in the library policy about distance learners, but I am not sure what it is!?	(1) Yes;	1.1 I'm not sure about it;	(by analysing the policy, there is an article about borrowing books)	
10	What do you think is the most appropriate way/method to support distance learners/teachers with all the information services they need? The appropriate methods to support DL stakeholders with IS	Applying and using the internet is very important to help in supporting distance learners and can be the best way to deliver our services to all users including DL stakeholders. So, library web sites should be developed and equipped with all services according to standards. The library web site should be linked directly with the DL deanship home page.	(1) applying the internet in providing all IS support; (2) improve the library website to include all services and help; (3) DL website should be has a link to the library website;		
11	13. What is your opinion about the idea of establishing an information centre to support DL programmes in Saudi higher education? Do you see any problems that this model could face? Information Centre Model to Support DL	What we need now is centre which can develop coordination and cooperation between DL deanships in universities and between academic libraries. This idea will eliminate duplications in services and materials which can be cost effective.	(1) we need coordination and cooperation between DL deanships in universities and between AL; (2) the centre will eliminate duplications in services and resources; (3) will be cost effective;		

	Programmes				
12	Do you have any comments, suggestions and further details regarding the role of the academic library in supporting DL programmes or any issues related to it? **Comments & Suggestions regarding the Role of AL in supporting DL**	I have one important point regarding the cultural usage of academic libraries and other libraries among our society in general and among us especially as higher education faculty or as higher education students. The usage of academic libraries especially among on-campus students isn't satisfying our expectation and can be seen as at lower level. If this is the case, what we can expect from distance learners who are at this moment rarely using the academic library services. In fact, distance learners should be given more attention than on-campus and should be supported with all information services from distance as they are away from campus and are usually in rural areas.	(1) AL usage is at a lower level from all users; (2) DL stakeholders should be given attention;			"The usage of academic libraries especially among on-campus students isn't satisfying our expectation and can be seen as at lower level. If this is the case, what we can expect from distance learners who are at this moment rarely using the academic library services. In fact, distance learners should be given more attention than on-campus and should be supported with all information services from distance as they are away from campus and are usually in rural areas. "

Appendix (6)
Sample of themes under each interview
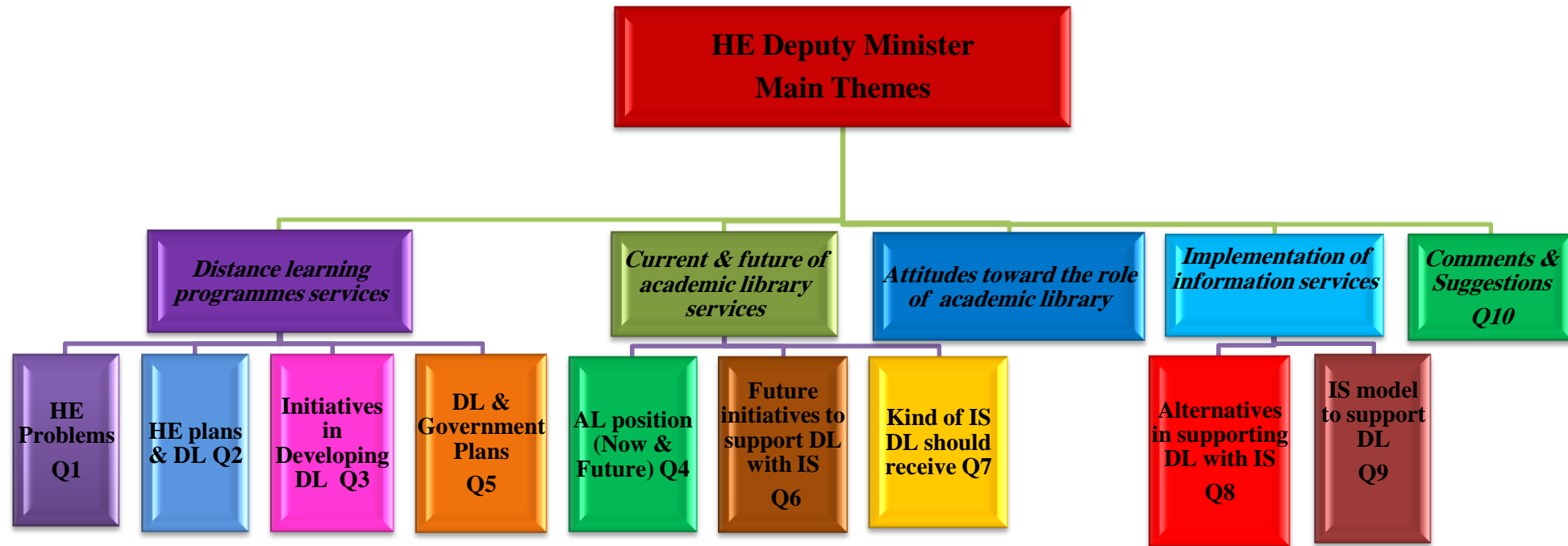
Appendix (7)
Official Documents Consulted and Analysed as Part of this Research

1. The 8th Saudi Development Plan (2005-2009).

2. Academic libraries' policies at Imam Mohammad Bin Saud Islamic University (IMBSIU) and King Abdul-Aziz University (KAU).

3. The National ICT Plan 2005 (The National Plan for Information and Communication Technologies), Ministry of Communication and Information Technology.

4. Academic Libraries' Websites, <http://library.imamu.edu.sa/; http://library.kau.edu.sa/Default.aspx?site_id=212&lng=AR>.

5. Distance learning deanships' Websites at IMBSIU and KAU, <http://www.imamu.edu.sa/support_deanery/e_learn/Pages/default_01.aspx; http://elearning.kau.edu.sa/Default.aspx?site_id=214&lng=AR>.

6. The National Centre for E-learning and DL (NCEL) Websites, <http://www.elc.edu.sa/portal/>.

Appendix (8)
Recommendations Related to the DL Sector Concerning the Role of DL Deanships in Supporting their Stakeholders' Right to Use Academic Libraries and Information Services

1	**Provide the necessary incentives for instructors to become more involved in distance teaching.**
2	Build the necessary cooperation with other departments in the university, especially with the AL and the ICT centre, in order to provide the necessary support for their stakeholders.
3	DL deanships should make strong efforts to outline the importance of using the AL and should make it part of DL practice and guidelines.
4	More concentration needs to be placed on providing intensive training programmes for DL stakeholders in order to train them to implement ICT, not only for the purpose of distance teaching and learning, but also for searching and allocating information in their daily lives.
5	Provide the necessary training for DL stakeholders about their responsibilities as distance instructors and learners.
6	There should be a full awareness of the needs of female distance learners who tend to be less fortunate than males, such as having difficulties in travelling and obtaining necessary support.
7	The DL deanships should acquire full contact details of DL stakeholders including e-mail addresses in order to help in marketing and advertising services, support, curricula, guidelines and updates.
8	DL stakeholders' contact details could be used later on, when cooperation between DL and AL has been successfully implemented, by the ALs to advertise their services and deliver remote support.
9	Society's awareness of the role and the nature of DL and its equality to traditional education must be improved and developed and should have all the necessary support, including ISs.
10	Universities should recognise and give support to DL by granting distance instructors sufficient time to carry out their obligations to distance learners.
11	Employers should take into account the nature of their distance learners and give them the necessary time for distance study. This could be achieved through the MHE setting up the necessary guidelines.
12	Allowing formal interaction in DL is an important way of making DL active and alive during the year and such interaction could be very valuable in helping DL stakeholders to use and consult the AL librarians. Hence, planning DL in advance should take into account building the cooperation between different organisations in each university to create widespread and ongoing interaction between distance learners and their home institute with all its services and support. This must consider the distance learners' interaction with their AL to ensure the flow of ISs and resources to distance learners wherever they are.
13	The implementation of new ICT, such as Web 2.0, to deliver and facilitate DL in Saudi HE should be considered.
14	Planning for DL and e-learning in SA must take into account the importance of IRs, especially Arabic ones. In fact, copying DL and e-learning models from western countries with their digital contents, which is usually in English, will not help in producing qualified learners, especially with the current weak English skills of many DL stakeholders.
15	Administration leaders must recognise and understand the need for DL stakeholders to have the necessary support related to the provision of library and ISs.
16	Distance instructors who undertake distance teaching should think beyond promotions and incentives and should provide guidelines and support for their learners.
17	Establish an authority that can require cooperation between universities in the provision of DL and e-learning. This could unify efforts and resources and regularly evaluate the status of DL in SA.

Appendix (9)

Recommendations Related to the Role of Academic Library in Supporting DL

1	ALs should consider acquiring IRs related to all departments and courses in order to support DL.
2	ALs should be supported by both the university administration and users, including DL stakeholders, who can suggest services and resources that should be made available in the library.
3	The limited IRs available for distance learners to use on- or off-campus constitute one of the most important factors affecting distance learners and should be resolved rapidly.
4	New technologies must be implemented in a way that can link all DL stakeholders, especially distance learners, with their ALs regardless of their physical locations. This could speed up the processes involved in offering AL services and resources through the Internet to all users, especially since distance learners are spread throughout the country and may be unable to visit the library physically. This must ensure easy, free and any-time access for all DL stakeholders.
5	ALs should improve their websites to include all IRs and services needed by users, including DL stakeholders.
6	Using the ALs physically or through the Internet must be considered when planning and designing ISs to support DL stakeholders by both ALs and DL deanships.
7	ALs should invest heavily in digitising Arabic resources as well as acquiring e-Arabic resources in order to support all users whose English is weak.
8	ALs should act responsibly to help distance learners to fulfil their requirements, especially those supporting their current study.
9	Overall results show that urgent initiatives are needed from ALs and DL deanships to meet DL stakeholders' needs for information to support their current distance teaching and learning.
10	ALs should be encouraged to create the necessary cooperation and coordination with the DL deanship in order to build the kind of support DL stakeholders need. For instance, building a unique unit in each AL equipped with professional librarians and equipment to serve DL stakeholders. This cooperation could save money by reducing unnecessary duplications in the future.
11	Current ISs policy in both the universities included in this study must be revised to consider the right of distance learners to use the AL. Policies should also increase the quantity and the period of time that instructors can borrow from their AL.
12	Current ISs policy should recognise and state clearly the right of DL stakeholders and on-campus learners to be served and supported equally.
13	Female users must be served equally to male users.
14	In reality, it is not practical to have databases that do not offer full texts, particularly in the Arab world and especially in SA. Hence, ALs and all IS providers should concentrate on acquiring full-text databases in order to provide reliable services to DL stakeholders.
15	Librarians must be trained to deal effectively with all users and to treat them respectfully and appropriately.
16	Librarians' needs must be recognised and acknowledged, including their needs for training and promotion in order to enable them to provide the necessary support for all users, including DL stakeholders.
17	ALs must connect the AL terminals with the Internet since it has become an important information-seeking tool for instructors and learners, especially for access to online databases.
18	ALs should give their users more freedom to use PCs, for instance to use them to write their assignments.
19	ALs should allow and guarantee unlimited time for all users to access the Internet during the day.
20	ALs must reconsider opening and closing times in order to allow their users sufficient time for academic work.
21	ALs should concentrate on helping all users, including DL stakeholders, to use their services and resources effectively. This can only be implemented by providing appropriate training (possibly online) to encourage use by DL stakeholders. ALs must therefore enhance their websites to meet their clients' needs.
22	Certain training techniques were seen as more useful and reliable in training distance learners, such as offering face-to-face training programmes or by introducing web-based tutorials. Clearly, it is important to concentrate on the most popular methods from among those mentioned and, in addition, careful consideration must be given to implementing the Internet through using AL websites to provide virtual courses on their use, especially to those enrolled in DL. Furthermore, placing all ALs' printed manuals on the Internet could be used as a quick marketing tool for the AL services and resources, as well as providing guidelines for the best ways to use the libraries.
23	Allow the participation of librarians as well as users in developing library services.
24	Develop strategic plans, policies, guidelines and standards related to serving and supporting special users

	such as DL stakeholders.
25	AL buildings, especially at KAU and those located in the women's sections in both universities, are old and should be refurbished.
26	Create a unified database involving all universities to include all DL-related resources and module contents
27	The MHE, universities, DL deanships and ALs should establish all necessary standards and regulations to ensure equal information services for both genders on and off-campus.

Appendix (10)
Factors that Would Support the Implementation of a Centralised Information Services Model

Information services' support utilising the Internet with its remote and interactive features.	24 hour and 7 days a week services could be provided to all faculties and learners.
The quality of IRs. Teachers and learners on/off campus deserve good quality IRs and this centre may allow them to access the best quality resources worldwide.	People working in the centre would be very knowledgeable (no less than a Master's degree with experience) and could specialise in providing ISs.
Linguistic diversity. While most resources are available in English, some of the most important resources will be translated at the centre (taking into account copyright issues) and offered in Arabic, making them available to a wider audience of both on- and off-campus learners.	One department of the centre should be engaged in preparing materials and resources for distance learners. This department could work closely with universities and their faculties and could set up unique online access for IRs related to each distance course.
Universities will spend less by the centre subscribing to several databases.	Academic librarians' time will be saved, giving them time to create library tools such as bibliographies and information literacy programmes, and to maintain their library collections (as in a traditional library).
Cooperation and mediation between ALs in SA regarding inter-library loans, digitising and other issues (setting standards, rules and guidelines) will exist.	This centre will work as an information literacy centre for the faculty and learners of Saudi universities regarding access to on-line resources and educating them to benefit from the centre in an appropriate way.
Providing high-quality services that are reliable, accurate and fast.	It will save time for AL administrations when preparing and acquiring online databases.
Helping ALs to concentrate on providing ISs according to their current ability and to focus more on collection management (acquiring only hard copies), as well as maintaining and digitising their collections.	It will also make savings in the budgets of ALs which will enable them to improve their current collections and acquire more recent resources (printed, audio and visual), which cannot be covered by the centre.
Creating/establishing interactive links between ALs and their users.	This centre would work closely with the ALs and their patrons and would provide them with full access to all kinds of online databases.
The centre's resources and content would be multi-disciplinary, multi-resource, from many countries and in many languages.	It could achieve the dream of ALs in SA regarding cooperation. This has been considered in the past, but building a "Consortium" of ALs has not been fully successful. If this could now be achieved, it would avoid duplication and would therefore save a good deal of money from annual budgets.
Universities could start up new DL programmes very easily without the inconvenience of preparing or acquiring on-line resources.	This centre, to a certain extent, would enable new, recently-established universities, which have no library and information service infrastructure, to start their academic programmes right away and not be concerned about the IRs that might be needed by faculties and students.
It could be a solution for female stakeholders who currently have fewer chances compared to male stakeholders in using AL services and resources.	One important criteria to evaluate any university is its library and ISs. This centre could attempt to improve this for all Saudi universities, which would enable them to improve their ranking among world universities.
This centre would be a new foundation stone for the provision of library and ISs to universities, government offices and private universities.	

Appendix (11)
Recommended Roles and Tasks of the New Saudi Academic Libraries in the Twenty-First Century Which Can Support DL Programmes

Responding to the current competitive environment by marketing themselves to actual and potential customers, research institutes and other researchers worldwide.	Playing a positive role by building a strong relationship with the local community to fulfil its needs according to AL policies.
Creating a well-designed, effective and reliable website, working 24 hours a day, that can market library services over the Internet. This should also offer its users the opportunity to search and use the library resources remotely.	Training their employees locally and internationally to improve their skills in dealing with ICT, the English language and new services.
Providing comprehensive information services to all its patrons.	Having strategic plans, especially in this fast changing world, which should include the library's mission, vision, goals and future plans.
Participating in improving the library and information sector in SA and playing a unique role in developing this sector.	Having clear written policies to manage and run different departments in the library.
Hosting book fairs and other fairs related to libraries and the information society in general.	Working closely with academic and non-academic departments in the universities in order to satisfy their members' needs in terms of IRs and services.
Helping other customers, such as users who are handicapped in any way, to use the library and its resources by creating special tools.	Preparing to satisfy fully their customers' needs by acquiring the necessary equipment.
Publishing and digitising books and journals (in both printed and e-formats) and other resources in order to improve the image of libraries, especially ALs, in SA and to improve Saudi librarians' knowledge.	Organising and managing knowledge in ways that allow it to be easily retrieved.
Establishing the necessary cooperation with other ALs, public libraries and other appropriate institutions to improve AL services.	Acquiring information resources in different formats.
The needs of female users, either on- or off-campus, for information services and resources from their academic libraries must be made equal to those of males.	Establishing full information literacy programmes for library patrons in how to use the library and its resources. These should be made available in different formats such as face-to-face training, e-learning, handouts, manuals and audio-visual presentations.
Academic library buildings in women's branches must be similar to those buildings on men's campuses to offer better services for both on- and off-campus female users.	Full equity in serving and supporting male and female users.