THE RELATIONSHIP BETWEEN ACADEMIC LIBRARY USAGE AND PERCEIVED PERSONAL PERFORMANCE IN KUWAIT

Awadh Alharbi

Bachelor of Library Science & Educational Technology (PAAET - Kuwait)
Master of Library & Information Management (MSc Northumbria University - UK)

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Academic library, students, academics, perceived personal performance, library training, collections, information technology, library's physical environment, facilities and equipment, Kuwait.

Abstract

Academic libraries around the world often have to justify high maintenance costs. High maintenance costs of university libraries are often justified by the belief that regular use of an academic library improves the grades of students. However, this is a difficult statement to support, therefore demonstrating the link between library use and student outcomes is critical to ensuring that library investment continues.

Questionnaires and interviews were conducted and the findings were analysed to derive users' perceptions. The findings revealed interesting results regarding how users make use of the library and how users feel the library improves their personal performance. Overall, the perception of all three groups of the academic libraries within Kuwait is positive, however many users are dissatisfied with some academic library services. Students answered positively regarding their grades and use of the academic library. Academics and administrators were generally positive and offered an experienced insight into the quality of the library. This study offers the first perception based results in Kuwait. The inclusion of administrators' perceptions is also novel in terms of the Gulf States. A refined model was designed based on the overall findings within the study. This model can be applied to any academic library, regardless of size or collection type.

Based on findings, the researcher recommends taking the following points into consideration in order to improve library services and facilities for all users. Improvements could be made in the structure of library training courses and academic libraries should be providing flexible spaces for individuals and group study as well as social activities.

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List of Abbreviations

ACRL	The Association of College and Research Libraries
ACK	Australian College of Kuwait
ASUL	Arizona State University Libraries
AUK	American University of Kuwait
CAUL	The Council of Australian University Librarians
CIS	Computer and Information Science
CWL	College for Women Library
DEA	Data Envelopment Analysis
EIS	Electronic Information Services
EL	Education Library
FGI	Focus Group Interview
FTP	File Transfer Protocol
FYE	First Year Experience
GAC	Gulf American College
GPA	Grade Point Average
GUST	Gulf University for Science and Technology
GT	Grounded Theory
HIP	Horizon Information Portal
IBEC	Information Behaviour in Everyday Contexts
ICT	Information and Communication Technologies
IL	Information Literacy
ILL	Interlibrary Loan
ISO	International Organisation for Standardisation
IT	Information Technology
JACL	Jaber Al-Ahmed Central Library
KW	Kuwait
KU	Kuwait University
KUL	Kuwait University Library
LC	Library of Congress
LE	Library Evaluation

LIS	Library and Information Science
MSM	Maastricht School for MBA
OPAC	Online Public Access Catalogue
PA	Performance Assessment
PAAET	Public Authority for Applied Education and Training
PI	Performance Indicators
PPP	Perceived Personal Performance
QUT	Queensland University of Technology
QUTL	Queensland University of Technology Library
SCONUL	The Society of College, National and University
SMS	Short Message Service
SPSS	Statistical Package for the Social Science
UK	United Kingdom
USA	United States of America

Statement of Original Authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

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Chapter 1: Introduction

1.1 Background of the Study

The Middle East has seen rapid growth in both financial investment and international recognition. This rise has led to a younger generation who require high levels of education in western style institutions. Kuwait is the location of the current study, which has seen heavy investment in the education sector. The Kuwaiti Government have invested heavily in public institutions and this has been combined with foreign investment in privately run universities. Universities around the world include an academic library in various forms (printed collections, digital collections, and websites). The impact the library has on users is an area of discussion with some users believing the library plays a significant role in the lives of university students and staff. On the other hand, some believe the library is a drain of university resources and is not necessary. Evaluating academic libraries is practised thoroughly in western universities; however Middle Eastern universities do not give library evaluation such high regard.

The rise of the internet and electronic resources has seen a change in the way libraries are used and perceived. This has led to increased library evaluations to determine how satisfied users are with library services. Several studies claim that library usage affects personal performance in a positive way (Wong and Webb, 2011). Since high levels of personal performance are considered to be one of the primary objectives and goals of higher education, academic libraries play an important role in the progress and development of students, academics and administrators. Educational performance is the reason students attend an academic library, but for academics and administrators it is to improve their personal performance. Therefore, this study aims to explain if academic libraries improve the personal performance of its users, through quantitative means.

The current investigation aims to deliver a perception based review on user attitudes in Kuwait academic libraries, using interviews and questionnaires. The study has devised a model based entirely on user perceptions in academic libraries called Factors of Academic Library Usage (FALU). This model is a new concept of

library evaluation based entirely on user satisfaction of various services provided by academic libraries. Personal performance varies depending on what the user attends the library for. Students' personal performance is how the library affects their grades and learning experience, academics' personal performance is how the library improves the quality of their lectures or research and administrators' personal performance relates to their work output and skills gained by attending the library.

The term perceived personal performance (PPP) is the primary measure of how users deem the library improves their performance, and this is the main use for the FALU model. Previous studies have examined student academic performance which is known as student PPP within the current study (Hiscock, 1986; Whitmire, 2002). However, as this study includes academics and administrators, PPP has varying impacts on the outcomes of the user groups.

The secondary use of the FALU model gauges user satisfaction with library services in the three academic libraries in the study. This indicates to library administration how well they are performing their jobs and which services need improving. This study is the first in Kuwait to use perception as the key component of evaluation, and offers an insight into library users' feelings and thoughts in the Middle East.

Stakeholders and administrators of the academic library have encouraged the use of library evaluation, to demonstrate how effective their investments are or to justify their positions within the university. Heavy investments in academic libraries require justification, so user feedback is regarded as an important part of the justification process. Areas which users deem unsatisfactory may need further investment to improve the service. Moreover, services which receive little usage will have investment reduced to save funds for other services.

Academic libraries in the west are often regarded as the centrepiece of academic study, with vast collections and huge study areas. Many western libraries have been established for hundreds of years, and heavily invested in, throughout their history. Prestigious universities such as Harvard and Oxford have huge library spaces and house collections exceeding ten million volumes each (Harvard University Library, 2011; University of Oxford, 2011). The shelf space in the libraries is measured in kilometres, and figures of 90km are the standards set by these institutes.

Universities in the Gulf States do not have the history of western academic libraries, but are receiving heavy investment. Kuwait academic libraries house collections averaging 350,000 volumes, which is significantly lower than the prestigious university libraries in the west. Western libraries realise the importance of information literacy and meeting the demands of its users. The library evaluations carried out in the western libraries are far more thorough than evaluations carried out in the Gulf States.

Traditionally, university libraries try to build a high-quality collection of print and electronic materials that are useful, cost effective and meet the users' needs. The quality and relevance of a collection greatly influences the functionality and usefulness of the library. In a university, evaluating and updating a library collection is important because courses change every year and students are expected to access current research materials. Collection evaluation is a crucial factor for attaining a well-developed collection, which in turn reflects the potential for educational improvement and performance in students and academics.

Investments in academic libraries can improve user perceptions of the library, but may not have a positive effect on the users' academic performances. Investment in IT services is important to almost all modern library users, as many people visit the library with the sole intention of using a computer to work study or relax.

Information technology services in Gulf State university libraries have recently witnessed significant expansion in terms of services provided to students, academics and university administrators. IT services in academic libraries not only provide traditional services but also provide several kinds of services to users in their homes.

The need to access information and the number of students at most universities is increasing each year. Therefore, academic libraries must consider frequently changing their facilities to create a convenient physical environment. The library's physical environment consists of various variables, such as layout and guiding, borrowing and returning, seating areas, heating and lighting, furniture and colour schemes and their cumulative effect. Many researchers suggest that academic libraries need to improve their physical environment by providing easy-to-read signs and library maps, improving regulation of temperature and air circulation, as well as

using daylight-stimulation light-bulbs (Applegate, 2009; Clee and Maguire, 1993; Waxman, Clemons, Banning and McKelfresh, 2007).

1.2 Definitions of Terms

Academic Library: A college or university library that consists of a building, staff, a collection of printed or electronic materials and office facilities such as printing, copying and internet access.

Collection: A number of documents (books, reports, records) assembled in a single physical or virtual location by one or more persons, or by a corporate entity, arranged in systematic order to facilitate retrieval (Reitz, 2005).

Collection Evaluation: Examining the value and usage of the libraries' collections (printed and electronic) in order to maintain collections relevant to current studies.

Factors of Academic Library Usage (FALU): A model designed with the primary focus of evaluating user perceptions of academic libraries, taking into consideration the services provided. This is a perception based approach, which aims to develop the field of academic library evaluation. This model can be used in any language and any academic library setting around the world.

Information Technology in the Library: Information technology refers to the hardware and software that is used to store, retrieve and manipulate information in electronic formats. Furthermore, it refers to all other technical equipment in the academic library such as computers (quality and speed).

Library Facilities and Equipment: The range of facilities offered by an academic library to help students, faculties and staff include computer labs, printing, photocopying, scanning, audio visual equipment, group study rooms and presentation practice rooms.

Library's Physical Environment: The physical environment of an academic library includes furniture, lighting, colour and workstations. Natural sunlight and air temperature are also a part of a library's environment.

Library Training: Free classes or workshops are held in the library campus for students, researchers, faculties and staff. Training teaches how to use the library

catalogues and borrow items, find material for essays, projects, research assignments and dissertations, reference and cite and access books or journals at other libraries.

Performance Measurement: Performance measurement evaluates how well organisations are managed and the value they deliver to customers and other stakeholders (Moullin 2007).

Perceived Personal Performance (PPP): The library users' satisfaction with the services provided by the library to support their needs, based on five variables (training, collection, information technology, facilities and library's physical environment). PPP is a new term devised by the researcher and varies in definition depending on the library user:

- Students: The students' perceptions of library services that influence their grades and educational outcomes.

- Academics: The perceptions of services academic libraries provide to improve the teaching quality of academics, such as training and electronic resources. Also, how the library improves the quality of their research.

- Administrators: The administrators' perceptions regarding library services which aid in improving their work output and efficiency, such as IT training and workshops.

1.3   Statement of the Problem

Traditionally, university libraries focus on inputs, such as funding and staffing, and measure outputs based on transactions and costs. However, the amount of usage and the costs do not necessarily provide comprehensive feedback on the benefits for users. Recent research suggests that library evaluation studies provide greater understanding of a university library's performance and should be analysing users' perceptions about services. Therefore, the primary purpose of this study is to explore the impact university libraries have on students, academics and administrators, particularly with regards to library services, staff performance, quality of Information Technology, facilities and equipment.

There are four main gaps arising from the current body of academic literature.

1. University library quantitative evaluation has been widely regarded as the primary means of library analysis. In this thesis, user perception of university libraries is developed to enrich the concepts of library evaluation studies. This study attempts to move away from traditional methods by taking a qualitative approach, supported by quantitative methods.

2. The majority of studies attempt to find a correlation between library usage and academic performance through variables such as borrowing resources and library skills (Barkey, 1965; De Jager, 2002; Hiscock, 1986; Lane, 1966; Pritchard, 1996; Schrader and Brown, 2008; Whitmire, 2001). Many studies base their findings on grade point average (GPA). In contrast, this study will examine the user's perceptions and ideas, and conclusions will be based on questionnaire results and interviews rather than statistical measurement.

3. At the present time, huge changes in university practices and resources have been brought about by the impact of major technology developments on university libraries. Even studies from a few years ago examining technological environment within the library (Barton and Weismantel 2007; Vaughan 2004) are out-dated due to rapidly changing technological circumstances.

4. Few Kuwaiti studies investigate library evaluation within the scope of variables such as technology, gender, age, educational status, type of academic institution and library skills (Al-Ansari, 1999; Rehman and Mohammad, 2002; Rehman and Ramzy, 2004; Sullivan and Brennen, 1984). Most of them focus on Kuwait University libraries as the setting for their research due to the population size of this academic institution. In contrast, this study extends this assessment by investigating the relationship between library usage and personal performance outcomes at three types of Kuwait University libraries, at both public and private higher education institutions.

This study builds on the understanding that academic libraries can play a major role in shaping the academic environment for students, faculty members and academic administrators. In addition, the missions of academic libraries attempt to provide information that supports the missions of the institution. Therefore this research investigates several factors relating to academic libraries' achievements of both library missions and university objectives. The findings show that encouraging the development of academic library services is advisable. The FALU model developed in this study uses up-to-date qualitative methods to define user impact as a construct which needs to be estimated from the collected data.

Previous studies in this field do not give a full and current explanation between library use and PPP. The vast improvements in technology over the last ten years mean that most of the studies prior to the mid-2000s are almost irrelevant. This study also covers various areas of library use and three user groups of academic libraries, which previous studies did not.

1.4   Significance of the Study

The academic library has changed rapidly in the last decade, resulting in a change in styles of library management and technology utilised within the library. This study aims to use a theoretical approach by using perception to analyse the services of Kuwait academic libraries. This type of study is one of the first in Kuwait. The main significance of this study is to investigate what value a library has in improving the perceived personal performance (PPP) of library users. PPP gauges how library users perceive any improvements in their personal performance by attending the academic library.

The analysis of the academic libraries is carried out using FALU. This model was designed to focus on key library services found in academic libraries. These factors influence user perceptions of the library. In addition, this model is used to derive outcomes for the academic library and possible improvements to be implemented.

This study supports the theory for cooperation between higher education and libraries, in particular between library and faculty, and between library and academic administrators.

1.5 Aim and Objectives of the Study

The aim of this study is to explore the relationship between library usage and perceived personal performance. The specific objectives of the study are:

- to describe the trends of academic library usage particularly, with regard to students, academics and administrators

- to determine the library satisfaction of students, academics and university administrators

- to assess the needs of university library users for better training, collections and IT

- to identify the needs of the university library in developing programs to improve academic performance of students

- to offer recommendations for how university libraries in Kuwait could become more effective in supporting library services

- to examine the objectives of both the university and the academic library.

1.6 Research Questions

This study addresses the following two research questions:

1. Is there a relationship between academic library usage and perceived personal performance? If so, what is the relationship?

2. What are the perceptions of academic library users towards library services in Kuwait?

    a) Which library services are significant to users?

    b) Which library services require improvement?

1.7 Research Outcomes

Investigating the link between PPP and academic library usage will be the primary outcome of the research, therefore promoting the value of academic libraries in Kuwait to stakeholders and university administrators'. Understanding the impact

an academic library has on users will enable improvements to be made in the key services which improve user PPP.

The results of this study will be used to determine activities that best promote libraries, activities that increase library use and patterns of usage by the various groups. It is also hoped that the results will provide an understanding of the differences and similarities between Arabic library usage theories and those of other cultures.

This study conducted at libraries of universities in Kuwait, involved students, academics and administrators from the three Kuwaiti universities. The theoretical outcomes of the research include the development of Factors for Academic Library Usage. The practical outcomes of this research will provide university libraries in Kuwait with an evaluation framework based on an integrated approach that measures the influencing factors of university library services.

1.8 Overview of Method

The primary methods used in the current study were based on perception, therefore utilising questionnaires and interviews to derive conclusions. The initial stage of the research was to produce a literature review. Based on this literature review a theoretical framework was produced from information gaps found in the literature. Using the theoretical framework, an initial model was created to carry out the study. Questionnaires were designed and randomly given to the library population when entering the academic library. Both descriptive and inferential statistics were used in this study. Data relating to the demographics of the sample group was first subjected to descriptive statistics. Inferential statistics, specifically multiple regressions were used to explore the perceived user impact of university libraries on students, academics and administrators regarding the five independent variables.

Using findings from the questionnaires, interviews aimed to clarify any areas that were lacking and build upon it. The questionnaire instruments were re-examined to make results comparable and consistent. Information technology was broken down into categories of web pages, databases, use of library IT resources, use of other technologies, as well as specific library use of IT by research librarians and other

librarians to develop collections and issue IT alerts for students and academics. The interviews were examined on various levels to show how useful the findings were and if they could be used to represent a general consensus. Based on how well the initial model performed throughout the study, a refined model was produced.

1.9   Outline of the Study

Chapter 1: Chapter one introduces the study. It outlines the background of the roles of university libraries and the research problem which concerns library evaluation. The research aims and objectives of this study are to explore the perceived personal performance of university libraries. The research questions were presented and the justification of this study was explained as a reason to assess the perceived personal performance of libraries.

Chapter 2: This chapter presents a literature review about the academic library evaluation system, from when it began during the 1970s up to current day. The reasons for academic library evaluation are covered since they relate directly to the purpose of this area of study. Library performance is important as it is vital for a library to perform all the tasks it is required to do. Service quality is covered as libraries should offer users a good service. Performance indicators are discussed and results analysed. Performance indicators are useful in assessing library performance if the results are valid. This chapter also demonstrates the link between academic libraries and educational performance. The influencing factors behind library usage are discussed and topics such as training and general library services are covered. The final section discusses several related models that measure library evaluation.

Chapter 3: This chapter describes the development of an entirely new theoretical framework created by the researcher called the Factors of Academic Library Usage model (FALU), and explores the relationship between FALU model and several external and internal factors relating to university library usage. The section on measuring input and output variables describes 18 measures covering five factors that influence the output of the model and measures (PPP) for students, academics, and administrators. Also, this chapter presents multiple regressions as a statistical technique which includes multiple regression coefficients, interpretation of the coefficients and the coefficients of the multiple determinations. The final section outlines the qualitative method and how this complements the quantitative method.

Chapter 4: This chapter details the development of questionnaires designed for the three core groups: students, academics and administrators. The results of the questionnaires led to phone interviews of library users about library services and how they use the library. Data is presented and explanations are given for the questions asked in the questionnaires, for the three core groups. The analysis of the results attained from the questionnaires and the interviews is explained, and broken down into key areas of library use. Research rigour and the way data is used and analysed in a non-bias way is covered in this chapter. This is broken down into three parts: pilot study, ethical considerations, and problems encountered in organising both the questionnaire and the interviews.

Chapter 5: This chapter describes the locations of data collection; for example, general information about Kuwait, facts about higher education and specific information about the three chosen libraries at Kuwait University, American University of Kuwait and Gulf University for Science & Technology. The libraries' aims and targets are explained, and outcomes they aim for their users to achieve. The training and information provided for library users is also outlined in this chapter, plus descriptions of what this training includes. Previous studies into academic libraries in Kuwait and the link between library usage and academic achievement are analysed. Finally, this chapter describes the situations of those libraries and the reasons for the percentage of participants in comparison to the development of academic libraries in western countries.

Chapter 6: This chapter looks at the results of the quantitative data collected and the statistical analysis of the data. The quality of the data is questioned, to see if the results can be regarded as trustworthy. This chapter covers analysis of areas such as student distribution between universities, academic year and frequency of library usage. Also, it shows the analysis of the independent variables of the three main groups. Regression is analysed and graphical representations of data collected. A number of figures and tables provide the validity of the quantitative data collected.

Chapter 7: This chapter analyses interview data with the three main participant groups at three Kuwait University libraries. Interview questions focused on the relationship between library usage and perceived personal performance. General questions asked of all three groups regarded overall library services. The

interview questions elicited a wide range of responses including student evaluations of different library services, strengths and limitations of library training availability, efficiency and effectiveness. The results from interviews with academics are included on subjects such as satisfaction with library services. University administrators were questioned regarding the roles of the library and how personal performance was affected.

Chapter 8: This chapter describes the trends of influencing factors on academic library usage, and the key areas of library usage such as collection and IT services. The library results are discussed as well as library usage and educational performance. Overviews of the data collected in the questionnaires and interviews are discussed. The relationship between data collected in interviews and questionnaires is discussed and compared. A summary of the research objectives is included in this chapter to see if the objectives of the research had been met or completed. Finally the initial model in chapter three is discussed as well as the alternative model and the reasons behind the changes made to it.

Chapter 9: The final chapter discusses research outcomes regarding factors relating to academic library usage and perceived personal performance. It discusses the contributions of the thesis and the significance of research aims and objectives. Limitations of this study are included and possible changes to the study for future purposes. This chapter outlines a new way for the generalisation of this thesis for FALU model, including its applicability for usage outside of Kuwait. Furthermore, some recommendations are presented based on the findings of the research.

Chapter 2: Literature Review

The literature used within this study covers a wide range of relevant academic library topics. The literature used in section 2.1 describes the reasons why libraries require evaluation, and what methods can be used. Section 2.2 gives an outline of the history of evaluation in academic libraries and includes studies from the last four decades. How libraries measure performance and how libraries compare their performance to others, is described in section 2.3. Section 2.4 covers library service quality, and the tools commonly used to evaluate service are explained. Performance indicators and how they work based on a library's size and attendances are explained in section 2.5. Section 2.6 covers the topic of perceived personal performance in academic libraries, and whether libraries improve user education. This is one area in which many studies consider, in proving or disproving this theory. Section 2.7 contains the independent variables of academic library usage, and why these variables are used in almost all studies into academic library usage. Section 2.8 explains the dependent variables, being the academic library users. The models used in previous studies are described in section 2.9, as they are models which can be used in any academic library.

2.1   The Reasons for Evaluation

Most academic libraries have similar reasons for evaluating their services. One reason is to assess the overall satisfaction of their users in order to improve their services. Evaluation tools provide libraries with feedback and help define the goals of the organisation.

Crawford (2000) names several reasons for undertaking evaluation. Firstly, collected information facilitates decision making and justifies changing expenditure. Secondly, the necessity for future improvements can be evaluated by either qualitative or quantitative methods. Thirdly, contradictory needs of different user categories can be specified since not all services benefit all users.

Matthews (2007) states library evaluation is conducted to improve services and provide feedback to define the goals of the organisation. Library evaluation focuses on the application of results to the real world and serving people.

Blagden and Harrington (1990) consider two reasons to monitor library management performance. Firstly, library evaluation convinces stakeholders that investments deliver the expected benefits. Secondly, it can be used as an internal control mechanism to ensure the effective and efficient usage of resources.

Wallace and Van Fleet (2001) see library evaluation as an important tool to preserve the viability and the visibility of the library since the change in user perception over the last ten years. The development from a paper-oriented to a technology-oriented society is an important consideration. Evaluation also enhances efficiency and avoidance of errors through appropriate policies, processes, tools and techniques.

Drawing on the literature mentioned above, the researcher believes that library evaluation is important to satisfy users, improve services and quality, justify decision making, provide feedback and internal control, enhance the visibility of library services and ensure the survival of the library itself in the current ever changing technological environment. Evaluation in Kuwait academic libraries is irregular and infrequent, which is one of several reasons for the current study.

2.2 Background and History of Library Evaluation

Evaluation has been used by librarians as a tool to determine the quality of their library services for several decades. The literature review begins by exploring studies from the 1970s because at this point, various new methods of evaluation were being devised. This section investigated the main developments in collection evaluation and performance management over the last decades.

The study of university library evaluation started in the 1930s with the study of Zook and Haggerty (1936), which attempted to explore the criteria and measurement needed to evaluate university libraries. The study was the first of its kind and used a new style of academic library evaluation moving away from usage and size of collections. Other studies were undertaken before 1970, but these studies were not focused on finding the value of academic libraries, but the usage of the collections

and which books were being used frequently. King and Bryant (1971) confirmed that in the 1950s and 1960s, evaluation of information services was a topic about which much was written but little actual research was conducted. Following is a chronological outline of studies from the 1970s until the current time.

2.2.1 1970s

In the 1970s, Orr's (1973) study gives a general framework of different quantitative measures, citing selected reports to illustrate significant points. Orr designed new tools for library evaluation that were divided into direct and indirect measures of quality and value. Direct measurement is when evaluation is based on ultimate criteria, for example, measuring the services of a library. Indirect measurement is when some presumably related criterion is substituted as the basis for judgment, such as measuring the number of items circulated per member of the potential user population. Also, Orr suggests that practicality is of prime importance in considering measurement intended for routine use, if it is going to be of assistance to the evaluator.

The common question of how effectively and efficiently a library is serving the needs of its users places library evaluation in an administrative context. Lancaster's (1977) study highlighted the importance of effectiveness and efficiency, and this stance is shared by authors in library administration literature. Similarly, Lynch (1979) places evaluation in the context of decision making. However, she also states that no evaluation, regardless of how well designed and well conducted it may be, can be the sole basis for decisions. Knightly (1979) also defends the administrative point of view, stating that the main purpose of evaluation is to obtain valid data to make judgment about the effectiveness of library services.

Lancaster's examination of a variety of studies to evaluate the different services provided by libraries is highly regarded in library evaluation services. His review of library evaluation studies covered numerous areas of library usage such as collection and resources used. He also stated that evaluation of library services should be regarded as a management tool, applied to determine how effectively and efficiently the library is serving the needs of its users, to identify limitations and failures of services, and to suggest ways that the services might be improved.

Performance measurement

In the early 1970s, the idea of measuring the performance of libraries was created. Several methods of evaluating academic libraries were devised by various authors. Measurements included static components such as standards, dynamic variables such as cost and time and serendipity measures. Some examples are Beeler et al. (1974), who published a handbook on the practical quality measurement of library services in special and academic libraries; and Pritchard and Auckland (1974), who calculated the data collected through a library effectiveness survey with a formula.

During the mid-seventies, Rodwell (1975) reports that the majority of library performance measurements were still based on mathematical calculations and mainly explored the correlation between effectiveness and cost. Rodwell shares this opinion with Bommer (1975) who states that the emphasis on figures is too high. In 1976, another study suggested performance measures and criteria for libraries, including the consideration of objectives, planning and performance budgeting (Noble and Ward, 1976).

In the late 1970s the development towards a more performance related measurement of libraries continued. Harter and Fields (1978) developed a model with the aim to make the performance of any given library comparable, whilst stating that future studies should focus on output measures. Moreover Burns (1978) focuses on the library user as the most important performance variable instead of monetary means and circulation statistics. Another study (Buckland, 1978) states that quantitative research and the evaluation of library objectives and user behaviour was relatively undeveloped while the progression of statistical analysis continued throughout the 1970s. Nevertheless, Buckland concluded that the progress in the consideration of quantitative approaches in performance measurement models was slowly increasing.

2.2.2 1980s

Compared to the 1970s, the field of academic library evaluation experienced increasing importance in the 1980s. In the USA, Europe and Australia, for example, authors started to explore new ways of evaluating academic libraries more effectively and efficiently. This decade saw the implementation of the first electronic

information resources as well as the development of the first quality measurement systems to achieve full user satisfaction. Parasuraman, Zeithaml and Berry (1985) first mentioned service quality measurement systems from which LibQUAL was developed.

Collection evaluation

Whitehead (1989) evaluates a list of evaluation variables and concludes that the ability to compare one library with other libraries is important in order to understand one's own collection and measure a general library standard even beyond national borders in a global context. Moreover Herubel (1989) explores library evaluation according to a wide variety of methods, for example the checklist and the self-list method, circulation statistics and on-site observation, while focusing on monographs, periodicals and references. These methods help to save time and keep service quality high.

Another study by Agnew, Meneely and Thaxton (1989) examines the use of audiovisual material with the result that most faculties of the respective university preferred books over audiovisual materials. The authors describe the findings of the survey as "very enlightening" due to the practical benefits for academic libraries. In the late 1980s, audiovisual materials were a new component of academic library collections. Therefore, this study was important for the evaluation of library collections at that time.

Performance measurement

In the 1980s, an increasing amount of literature appeared on the subject of university library evaluations. The study by Palais (1980) at Arizona State University Libraries measures the success or failure of the users of the libraries to engage with desired materials. The author mentioned five factors: acquisition performance, circulation performance, library operation performance, catalogue user performance and user performance.

Libraries are organisations that are also sociological and cultural institutions. They are value-laden institutions, in which ideas of social obligation and public good are combined with cost effectiveness and efficiency (Cameron & Whetten, 1983).

These authors explore the structure of academic libraries and find that it is the same as in other organisations, even in the private sector.

As for library services, D'Elia and Walsh (1983) evaluate the performance of different services within the library to measure the given library's overall level of performance and to compare these levels of performance with those reported for other libraries. The study discussed the relationship between the user satisfaction scale, demographic characteristics of the user and the user's evaluation of the specific services within the library.

Powell (1988) suggests that user studies and performance measures provide two major approaches for evaluating the effectiveness of library services. He explored the objectives and approaches in user studies, as well as offering an overview of the literature. Powell recommends that libraries should be most concerned with measuring their ultimate product, performance or effectiveness, based on user data. Also, he recommends that a real need exists for libraries to be accountable for measuring the performance of their services. Vickery and Vickery (1987) have provided a useful framework for assessing performance in reaching objectives. These include the effectiveness of a system, the economic efficiency of a system and the value of a system. By effectiveness these authors mean the degree to which it minimises the cost of achieving an objective. The combination of these three factors results in cost effectiveness. The value of this study is the degree to which the results are stated in monetary terms and compared with cost benefit analysis.

Moore (1989) states that are three levels at which one can evaluate a library: the measurement of efficiency, effectiveness and performance. Moore's consideration of performance focuses on how a library could utilise fewer resources to achieve the same level of service. It is therefore a measure of cost-effectiveness, which is itself an assessment of the impact that a service has on its users, or an examination of how it is fulfilling or satisfying the needs of its user community.

The quality and relevance of a collection is a useful indicator of the value of a library to its users. In a university evaluating and updating a library collection is important because courses are changing every year and academics expect students to be able to access current research materials. Collection evaluation can be the crucial

factor for attaining a well-developed collection. Most collection development activities are reviewed in some way during a collection evaluation.

2.2.3 1990s

In the 1990s, evaluation was the process of identifying and collecting data about an organisation or its specific programs and services. The data, viewed within a decision making or policy setting context, provides insights into the effectiveness, impact, efficiency and value of a program, services or operation. The data also provides a basis for making recommendations for development (Hernon and Altman 1996).

Blagden and Harrington (1990) state that this management approach sees monitoring performance as an integral part of good management that is undertaken for two reasons: firstly, to inform the clients that the library service is delivering the benefits expected when the investment was made; secondly, to provide an internal control system to ensure that resources are used effectively and efficiently. Bawden (1990) explores a different approach to evaluation, discussing various methodologies. He describes user orientation evaluation, which aims to improve services and the motivation and competence of librarians.

Saracevic and Kantor (1997a) explore the importance of studying the value of library and information services in more specific terms than ever before. Understanding the definition of library value is regarded as important as evaluating the library. If the value or definition of what users value in the library is wrong, then implementing changes will be ineffective.

In the second part of the article Saracevic and Kantor (1997b) produced a model for studying the use of information services for individuals using a service in relation to a given task or problem. To use this framework, they interviewed over 500 users of 18 services in five large research libraries.

In the early 1990s, the demand for performance evaluation by various types of libraries noticeably increased. This increased interest in performance evaluation can be attributed to some degree to the increased desire of libraries for the development and improvement of library services to current and potential users. Not only was increased demand for performance evaluation witnessed in the early 1990s, but also

seen were calls for the development and improvement of the methods and techniques used to conduct performance evaluation. These calls for improvement suggest the importance of library performance evaluation.

The increased interest in performance evaluation in the early 1990s can be attributed to the dramatic expansion of the library itself in terms of both services and facilities, and to the increased numbers of users of library services, such as students and the public. In addition, the ambitions of library management to improve the library service also contributed to the increased demand for performance evaluation.

Poll and Boekhorst (1996) note three factors that limit the effectiveness of performance indicators. The first factor for this limitation is the existence of a large number of performance indicators. There are some indicators that are related to impractical issues, therefore measurement is problematic. The second limitation of these indicators is related to the reliability of the data collection methods used. Since these indicators are based on the reliability of the data collected, the reliability of the collection method used is an issue. The third limitation of these performance indicators is related to the difficulty in establishing a set of general standards that are applicable to all types of libraries. However, this third limitation can be mitigated by setting specific standards for each type of library (Poll and Boekhorst, 1996).

Performance indicators contribute to the process of evaluation. Lancaster (1993) supported approaching evaluation from the perspective of performance measurement and used a systemic approach. It is a method which emphasises subjects relating to technical services, such as weeding of stock, and illustrates a tension between the two main types of measures user-orientated measures: and technical services. Technical services have a strong quantitative emphasis and may also impact on services to users, for example, speed of cataloguing of sought-after materials, while user-orientated measures are more qualitative and could be similar to those which users would choose themselves. Abbott (1994) suggests there is an important relationship between evaluation and performance measurement. Performance indicators are simply management tools designed to assist library managers in determining how well their service is performing. They provide evidence from which to base judgment, but are not substitutes for that judgment,

since performance data needs to be interpreted before such assessments can be made. In considering performance indicators, researchers are rarely dealing with absolutes.

Morgan (1993) discovers the nature and extent of performance assessment occurring in higher education libraries in the United Kingdom. About two-thirds of the libraries surveyed had no written policies on performance assessment, while book and periodical collections were evaluated by around half of the libraries.

Chen (1997) uses Data Envelopment Analysis (DEA) to evaluate the relative performance of 23 university libraries in Taiwan. It approximates mathematically the maximum possible aggregate efficiency score, by integrating the combination relationship of inputs and outputs of 23 non-profit comparative libraries. The author decided on four output measures (reader visits, book circulation, reference transaction and online search), and three input items (library staff, book acquisition expenditure and the area of library space and interblending services, such as facilities and equipment).

2.2.4 2000s

In the 2000s, Hernon and Whitman (2001) distinguish between the terms assessment and evaluation, explaining that assessment is the process of gathering data, while evaluation is the final stage in which the data is interpreted and "value judgments" are made. This study argued that value judgments are made throughout the entire process of needs assessment, planning, service provision, assessment and analysis, and that these judgments strongly affect the nature of the service, as well as the means of evaluating it. Like all public and private sector services, libraries are fighting for funds and are therefore called upon to justify their expenditure, and even their existence. Service efficiency and quality measurements are provided in order to petition for on-going or increased revenues, and in order to engage in dialogue with stakeholders (Sheppard, 2002).

Kyrillidou (2002) suggests that libraries are social institutions, being part of the social capital available to a community. As such their value needs to be articulated in relation to "the value they provide to the user". Therefore service quality is the extent to which a service meets the information needs of its community, not only in relation to what users say they would like when they tick boxes in a survey, but also in

relation to what benefits the whole potential user community. Quality evaluation, then, also has to consider needs assessment.

Collection evaluations are becoming necessary for improving university library access. Agee (2005) describes three major approaches to collection evaluation – user centred evaluation, physical assessment, and specific subject support. Each approach employs a variety of specialised evaluative techniques. The benefit of using any of these techniques is that a focus can be developed for any aspect, such as the subject, quality and age of the collection. Also, evaluation of the collection allows librarians to know what resources are already available, what may be needed, and whether future collection development can be filled most effectively through print or electronic resources. Agee advocates the importance of collection evaluation:

> *"Without collection evaluation that provides a clear assessment of available resources, future collection management – budgeting, format consideration, selection or deselection – may be inefficient and at risk"* (p. 95).

Libraries have to decide what types of indicators are most suitable for evaluating their particular services and products. The decision should be taken in consideration of the library's mission, goals, and objectives, and the population it is set up to serve.

The evaluation of library services is an important research area and an activity in all countries with established library services. Bawden, Petuchovaite, and Vilar (2005) compare methods for evaluating the performance of library services in three European countries – Lithuania, Slovenia and the United Kingdom. They examine a variety of approaches for measurement of the effectiveness of library services in these countries.

Likewise Satoh, Nagata, Kytomaki and Gerrard (2005) discuss evaluation of the university library service quality through focus group interviews (FGIs) conducted at four university libraries in three countries (Japan, England and Finland). They added to the 29 items used for the questionnaire survey at the four university libraries. The FGIs were carried out following a common framework at four universities in these countries. Mapping the results brought about the requirement for

additional questionnaire items to be included for the usability of the computer system, for example, OPAC outside databases and e-journals.

Measuring Library Performance

The objective behind measuring any academic library should be to evaluate performance and therefore improve or maintain its current standards. By focusing on staff and resources, an assessment can be made as to their effectiveness and whether they are working efficiently or not.

The need to measure library performance has increased since the 1990s, in part due to the increase in technology available to carry out these investigations. The use of computers in libraries has changed how libraries function, so measuring how they perform is important to management and shareholders.

As an important managerial activity, the roles of performance measurement are widely recognised as: supporting the management process; demonstrating institutional effectiveness and accountability; tracking quality achievements of an institution; supporting decision making and improving library and information services and comparing different sources of data and planning strategy

Brophy (2006) suggests that all researchers working on a performance assessment of a library should devise an evaluation plan before starting any data collection or similar activities. This is to ensure that no area or topic is omitted, resources are organised and there is a clear path for evaluation. Within his fifteen points, he suggests that before carrying out any research, a number of questions need to be posed such as, "what services are currently provided and why, what are the expected and actual outcomes of a current service, who will be affected by this assessment and what is their interest in it, how long will this assessment take, what are we going to mark performance against, what methods and resources are going to be used and who is to be the sample or whole-population study?" Whilst the details of his advisory points are aimed at large-scale research of a series of larger libraries, it is still worthwhile consideration for smaller studies.

The evaluation of performance is a comparison of what currently exists with prescribed, intended outcomes. In discussion of differing evaluation models, Matthews (2007), describes four main "levels of analysis". Initially this involves an

evaluation of an individual library user's experience, although most evaluations are carried out at a higher level where the evaluation of a library staff member is referred to as a personnel evaluation. A service evaluation, the most common focus of library research, focuses on a particular program or service and uses the experiences of a group of library users for evaluation. At an organisational level, there is a focus on all the services of one particular library which are then used to compare this library to similar libraries. The final level of analysis is societal. This focuses on the evaluation of an individual library and its impact on the wider community.

The researcher agrees that the service level of analysis is very common and many successful studies into library performance use service evaluation. The current study offers a complete evaluation of the academic libraries in three separate universities within Kuwait, examining the major services provided by each of the libraries.

The measurement section of performance research is the collection and analysis of data from which evaluations can then be drawn. The data itself simply shows what exists and how it is then interpreted and evaluated will depend on the expected outcomes of the service or program that is under research. In their description of evaluation and measurement, Van House, Weil and McClure (1990) use an adaption of the evaluation process by Suchman (1967), stating that evaluation is a "cyclical, goal based process". It begins with the "definition of effectiveness". The next step is the establishment of goals which will provide performance markers. Following these first steps, criteria are suggested as "indicators of effectiveness". Once these are in place, data can then be collected for each measure. At the final stage, performance assessment, results are measured and evaluated and the definition of effectiveness is reconsidered. Van House et al., go on to explain that "*the key point is that the measurement results are compared to the library's goals in reaching evaluation judgements*".

It is important that the data collected as a measurement in research is used appropriately. There have been instances in the past where data from library studies has been collected but not analysed correctly, or no changes have been made to services due to the findings. Researchers need to consider the wider picture and have a clear understanding of how the data is to be used in the evaluation process. The

source of data collection should also be taken into consideration. For example, Munde and Marks (2009) note the response of librarians involved in data collection who regarded it as "busy work". They then went on to conclude that, *"when that opinion becomes the prevailing view, then measurement will be flawed and assessment is doomed"*. Further to this, the personal opinions of librarians regarding the purpose of academic libraries may skew results.

The researcher observed a small change from the 1970s in comparison to the 1960s. The latter decade saw a development in new theories regarding libraries and their performance. Many academic libraries became more concerned about the evaluation of their performance than they had done previously.

Due to the increasing technological advances of the 1980s, most academic libraries began using information technology, such as computers, to evaluate the processing of services. In turn, the services began to expand and many academic libraries had to turn their focus to collections as they moved from printed to electronic resources. Studies started to focus on library environments to ensure that libraries were modernising alongside other academic institutions with regard to new technologies.

During the 1990s many new programs and assessment tools were developed, a significant tool being SERVQUAL which provides an outcome measure for academic library services. As technological advances continued, the introduction and development of the internet resulted in the expansion of library services as they introduced new tools. In particular, each library created their own website in order to promote their existing services. As a result, it became harder to determine performance indicators due to rapid and extensive changes. Most authors began to use the internet to measure their evaluation of academic libraries.

Since the turn of the millennium, the evaluation of academic libraries has become widespread due to the increase in the number of performance indicators. The great changes and expansions in technology led to several more areas in which libraries could be evaluated. In particular, researchers had to gain an understanding of the concept of digital libraries as their collections began to outgrow those of printed resources. The expansion of digital library evaluations has been so great that some authors now choose to only publish their work within these collections.

Digital libraries offer library evaluators a valuable insight into the usage patterns of library users. Transaction log analysis allows library evaluators to highlight the types of data or information which users use frequently and through doing so can suggest to the financial department to invest in further resources in the specific area. (Jones et al, 2000) explains the uses of log analysis and further ways to filter results. The study was conducted and makes use of demographic information of users and cross compares demographics with search queries on the database.

Table 2.1 represents all the literature reviews included in the current study. It offers a brief overview of each work, including the region, subject, author, methods of study and date of publication.

Table 2.1

Table of the Literature Review

No.	Authors	Year	Dependent variables			Region	Independent variables	Primary method
			St	Ac	Admin			
1	Agee	2006	✓	✓		USA	Collection	Evaluation
2	Bawden,Petuchovaite & Vilar	2005	✓	✓		UK, Lithuania, Slovenia	Library services	Evaluation and comparison
3	Bibarz, Bosch, and Sugnet,	2001			✓	UK	Collection	Research
4	Brophy	2006	✓	✓	✓	UK	Multiple factors	Research
5	Brown	1999	✓	✓		USA	Electronic Resources	Survey
6	Bruckman	2005	✓			USA	Internet	Survey
7	Burns	1978	✓		✓	USA	Library Usage	Evaluation
8	Chen	1997	✓	✓	✓	Taiwan	Multiple factors	Statistical
9	Chim	2007	✓	✓	✓	Hong Kong	Multiple factors	Survey and Observation
10	Cook and Thompson	2001				USA	Library services	Evaluation
11	Curtis and Scheschy	2005	✓	✓	✓	UK	Electronic Resources	Research
12	Gardiner, McMene, and Chowdhury	2006		✓		UK	Digital Materials	Survey
13	Futas	1995	✓	✓		USA	Electronic Resources	Research
14	Hennig, Langer, and Hansen	2001	✓			Germany	Library Skills	Survey

No.	Authors	Year	Dependent variables			Region	Independent variables	Primary method
			St	Ac	Admin			
15	Herman	2007	✓			Australia	Communication	Demographic Statistics
16	Kao and Hung	2008			✓	Taiwan	University Administrators	Group Focus
17	King and Montgomery	2002	✓	✓		USA	Electronic Resources	Survey and Observation
18	Knightly	1979	✓	✓	✓	USA	Library performance	Mixed methods
19	Korobili, Tilikidou, and Delistavrou	2006	✓	✓		Greece	Electronic Resources	Survey
20	Kyrillidou	2002	✓	✓		USA	Learning Outcomes	Evaluation
21	Lindauer	1998	✓	✓	✓	USA	IT Services	Survey
22	Mann	2001	✓			USA	Collection	Interview
23	Markless and Streatfield	2001 2006	✓	✓		UK	Multiple factors	Research
24	Marshall	2001	✓			USA	Communication	Survey and Interview
25	Meier	2008	✓	✓	✓	USA	Communication	Research
26	Morgan	1993	✓			UK	Multiple Factors	Questionnaires, Observation & interview
27	Orr	1973			✓	USA	Service quality	Qualitative
29	Payne, Crawford, and Fiander	2004	✓	✓		UK	Impact Measurement	Research
30	Phipps	2001	✓	✓	✓	USA	Library services	Survey
31	Poll	2006	✓	✓		Germany	Impact of services	Survey
32	Poll	2007	✓	✓	✓	Germany	Performance Indicators	Comparison

No.	Authors	Year	Dependent variables			Region	Independent variables	Primary method
			St	Ac	Admin			
33	Rao	2001	✓	✓		India	Communication	Observation
34	Sahu	2006	✓	✓		India	Service quality	Questionnaire
35	Saracevic and Kantor	1997a	✓			USA	Value Evaluation	Survey and Interview
36	Saracevic and Kantor	1997b	✓			USA	Value Evaluation	Survey and Interview
37	Satoh, Nagata, Kytomaki, Gerrard	2005	✓	✓		Japan, Finland, UK	Library services	Surveys
38	Schrader and Brown	2008	✓			USA	Library Skills	Survey and Interview
39	Soutter	2007	✓			Canada	Collection	Observation
40	Stein, et al.	2008	✓			USA	Multiple factors	Research, Focus Groups, Interview and Survey
41	Voorbij	2009	✓	✓	✓	The Netherlands	Benchmarking	Comparison
42	Wallis	2005	✓			UK	ICT	Research
43	Webster and Jackson	1994		✓	✓	USA	Academics and University Administrators	Case Study Design
44	Whitehead	1989			✓	Australia	Collection	Quantitative evaluation
45	Williams	1995	✓			Canada	Library Using	Survey

Note: St = Students, Ac = Academics and Admin = Administrators. Multiple factors = more than one factor used

2.3   Service Quality

Service quality is an important issue for university libraries to ensure the level of quality and to accomplish common goals. It cannot be adequately conveyed by output and performance measures and needs to be separated from internal observations of efficiency and effectiveness. It is important that librarians and library management keep in mind that service quality is especially relevant to their users. Thus, they have to see service quality from the users' point of view (Hernon and Altman, 1996).

Library service quality can be interpreted as the difference between users' service quality expectations and perception. For this reason, the quality of offered library services has to conform to users' needs and requirements. Therefore, the user decides if the quality of library services is acceptable or unacceptable (Barnard, 1993).

Sahu (2006) states that the library as a service provider is influenced by the users' demands. According to him, quality is not supposed to be a static system or procedure. Service quality means the library's first goal is to meet customers' requirements, followed by standards and specifications. Service quality is a two-way, symbiotic relationship between service provider and user while the main focus of a library should be on the users.

Following the work carried out by the ILFA section for universities and other general research libraries, a handbook was developed to guide the performance management of libraries by providing a list of indicators against which performance could be measured. *Measuring Quality: International Guidelines for Performance Measurement in Academic Libraries* (1996) provides 17 indicators and has since been translated into several other languages, demonstrating its global use. Whilst the first edition was merely for use in academic libraries, ten years later a revision of the original text by Poll and Boekhorst, (2007) which attempts to incorporate the major shifts in the technological and information world and looks to include the management of all libraries. The following subsections outline:

2.3.1 SERVQUAL

SERVQUAL is one of the most popular assessment tools of service quality, and was designed in the mid-80s by Zeithaml, Parasuraman and Berry. The tool provides managers with an outcome measure to gauge their service activities. Kumar (2010) states that SERVQUAL is based on the difference between customers' expectations and their perception of services, while scores cannot be used as a comparison tool between different institutions. The strengths of SERVQUAL lie in its high reliability, its high internal consistency as well as the scale's trait, the scale's face and the concurrent and predictive validity of the model (Parasuraman, Zeithaml and Berry 1985, 1988, 1991). Moreover, the model can be adapted to individual needs through modification of the wording and additions of context-specific items. However, many authors also discussed poor statistical properties and restricted variance in their studies (Cronin and Taylor, 1992, 1994; Van Dyke, Kappelman & Prybutok, 1997). Parasuraman, Zeithaml and Berry (1988) also use an approach containing different methods by using qualitative data collection in the first phase, and continuing with quantitative data collection in the second phase. The main purpose of using this method is to develop a multi-item scale that would measure service quality and the reliability and validity of the scaling instrument. This method of using a qualitative approach for the initial research, followed by quantitative support is the basis for the current study. A qualitative approach is used to gauge user perceptions, followed by quantitative results to determine reliability of findings.

Cook and Thompson (2001) examine the reliability and validity of scores measured through the SERVQUAL protocol and found that scores were reliable. However they didn't cover the five SERVQUAL dimensions. Therefore, the validity of the model in the context of research libraries has to be questioned. However, Cook and Thompson suggest SERVQUAL as an effective tool to evaluate library quality with the hint that librarians need to be aware of what the model actually measures and importantly what it doesn't measure.

Some authors use the SERVQUAL model to develop an instrument for measuring service quality and satisfaction in academic libraries (Hernon and Altman, 1996).

The questionnaires used in the current research use similar techniques to the SERVQUAL model, but have been modified to suit the current research.

2.3.2 LibQUAL

LibQUAL, offered by the Association of Research Libraries (ARL), is a library tool which tracks and understands users' opinions concerning service quality. The goals of this tool are to improve library services, help libraries understand their user perceptions, collect user feedback over time, provide them with comparable information from other institutions and identify best practice methods in library services.

Phipps (2001) discovers that LibQUAL is valuable for the comparison between users' expectations and their perception of library service. LibQUAL data can lead to an improvement of research libraries nationally and internationally. Moreover it provides a connection to the combined set of customers, demonstrating a caring attitude, feedback expectations, a commitment to quality improvement and a dedication to partnering in transforming the educational process.

Cook and Thompson (2001) use LibQUAL to identify areas of potential improvement and compare the data to the library services of other institutions with more favourable profiles. In their study, the Higher University Library was rated below average on all LibQUAL dimensions while participants were most homogeneous in their ratings concerning the Services and Reliability subscales.

After the researcher's investigation of the previous models, it was discovered that both systems are of high quality and relevance among academic literature. However, the researcher found the LibQUAL tool more appropriate for the evaluation of academic libraries because LibQUAL's advantage is the ability to compare services of different institutions, while SERVQUAL does not compare service actions among libraries since there is no normative data.

2.4   Performance Indicators

Many studies attempt to investigate performance indicators which affect academic libraries. However, measuring the impact of academic library services is still a problem, due to the varying sizes and systems of academic libraries. Each

academic library has its own goals and objectives depending on its budget and size, which means creating standardised indicators is not effective.

Lindauer (1998) links library performance indicators to the overall performance of the university through reviewing the accreditation standards and criteria, literature on library quality, library performance and effectiveness and higher educational outcomes assessment research. The study states university outcomes to which academic libraries contribute, mentions various progresses and the impact of oriented performance indicators, and offers a framework for a positive teaching-learning environment. One of the most significant suggestions Lindauer makes, is the need for ongoing cooperative work between university and academic libraries, not only at times of accreditation but also through permanent committee work.

Poll and de Boekhorst (1996) designed a list of performance indicators: General Library Use and Facilities, Collection Quality, Catalogue Quality, Availability of Documents in the Collection, Reference Service, Remote Use and User Satisfaction. The authors state the structure of the indicators. Every indicator has been given a specific name. The outcome explains the relation between indicator and a library's goals, and the method describes the data collection and evaluation. After the data collection has been conducted, results have to be interpreted and solutions have to be found in order to increase effectiveness.

Voorbij (2009) suggests four categories of performance indicators to compare libraries with each other. His first category, Financial and Human Resources, contains indicators such as the percentage of the Library Expenditures/University Expenditures. Secondly, he names the field of Products, Facilities and Services which includes factors like the expenditure collection per capita. The third variable focuses on the Efficiency of Internet Processes and includes for example the performance indicator: Number of Processed Books per FTE Book Processing. Finally, he takes a closer look at the Use of Products, Facilities and Services, which includes for example the Number of Loans per Year/Number of Books Acquired in the last five years. However, Voorbij questions the validity of the performance indicators. According to the author, a university with 25,000 students, in comparison to a university with 5,000 students, has to offer a larger collection but not necessarily

five times as big since economy of scale applies. This example reflects the researcher's study, since Kuwait University has 25,000 students, while only 5000 students are enrolled at AUK and 3000 students go to GUST (see chapter five).

Chim (2007) covers four dimensions in his theoretical approach to performance indicators, which in turn form the balanced scorecard. First of all, he names the customer dimension. This delves into the user satisfaction; the user satisfaction with reference services and the information desk enquiry services, as well as the response time of lending services can be measured. Secondly, the author describes the objective dimension. This dimension contains an insight into library weeding to maintain a viable collection, the financial objective, the use of the library collection and the user empowerment concerning participation rates of the library orientation and workshops. The third dimension aims to collect more information about the process itself with a focus on book processing time, IT application/digitisation and the acquisition of e-journals. Finally, the organisation and staff indicator contains insight into staff training and development.

Poll (2007) summarises the most significant performance indicators for library evaluation in eight points. According to the author, the full extent of library services and electronic as well as traditional services should be taken into consideration. Indicators should mirror the importance and impact of libraries and create the possibility of further comparison between participating libraries. Unfair treatment of individual libraries should be avoided while indicators should allow individual conditions in each organisation. Finally, they should deliver results that are easily understandable for everyone and should consist of only a few different measures.

According to the literature, the researcher used common indicators: user perception, level of user satisfaction and quality of service. This is similar to the present literature and is appropriate for the needs of students, academics and administrators for electronic as well as traditional collections, facilities and equipment of the library and the library's physical environment.

2.5   Academic Library Usage and Personal Performance

While this study attempts to investigate the relationship between library usage and personal performance at universities, a number of other studies have addressed a

similar topic in the past. Researchers have measured the correlation between library use and educational performance, mainly assessed in Australia, Great Britain, Germany and the USA. In the 1960s, the seminal study of Barkey (1965) attempts to discover the relationship between students borrowing books and their grade point average (GPA) at universities. Another study conducted around this time by Lane (1966) explores the correlation between student characteristics and borrowing books. The author found out that the number of borrowed books increased with each class year and varied strongly between the different academic disciplines. For example, while Education, English and History students used a high number of books, agriculture students demanded less of the academic library collection. In general, female students borrowed more books than male students.

Hiscock (1986) investigates the relationship between the usage of libraries and academic performances. The study aims to explore whether students who used the library frequently showed a higher academic performance than those who did not use the library. Hiscock tests her nine hypotheses in the six different faculties of a South Australian academic institution on five different campuses. Overall, the hypotheses link the usage of libraries to students' academic performance, as mentioned above. The study found that even though some hypotheses have been confirmed, the relationship between the usage of libraries and academic performance is not as strong as expected.

After the mid-1980s, the number of library and information studies increased immensely. They attempt to make a positive link between academic library usage and educational performance.

De Jager (2002) compares the overall academic performance of undergraduate students from different faculties of a South African university to their library usage De Jager finds that students with high grades tend to use the library more than those with low grades. She states that:

> *"It has yet again been confirmed that measuring the impact of library use on undergraduate performance is neither simple nor obvious, but it has also been possible to show that students who do well, tend to borrow more open shelf library materials than students who do poorly"* (p. 296).

The number of borrowed library material highly depends on the field of study: while students in the arts and humanities sector need the most books, engineering, science and economics students tend to borrow less material.

A study based on the relationship between academic library resource usage and academic performance by Jantti and Cox (2010), states that libraries need to prove their worth to users and stakeholders in improving users' educational performance. Proving this is difficult as users' perceptions of academic performance are gauged differently. The study suggests that students who do not use the academic library are at a disadvantage to library users. The study states that students who borrow library books have, on average, a 12 point positive grade difference (GPA) with students who do not borrow books.

The study of Brazier and Conroy (1996) attempted to explore the relationship between library usage and the performance of undergraduate students. They found significant differences between students in different years of their study, different genders and different regional origins. The authors found that students in their first semesters of studies tend to borrow more books than students in their last semesters. Females borrowed more books than males and the usage of library material varied among the different regions. The study also found that students in their first year performed better at their end-of-year examinations when using library material. However, the library usage rate of students in their fifth year of study didn't show a significant influence on their performance in their examination scores.

Whitmire (2002) determines the academic library performance measures and the library usage of undergraduate students and their educational outcomes at 36 colleges and universities in the United States. The author found that the age of undergraduates does not seem to be a relevant factor for the borrowing rate, while gender does; males reported a higher usage rate in almost all institutional types. Students engaging in more faculty interactions, active learning and writing activities showed a higher academic library use. Overall, the relationship between library usage and educational outcomes is weak. However, the author states that:

> *"There may be stronger links between other educational outcomes and academic library performance indicators, such as graduation rates"* (p.126).

Whitmire (2002) recommends creating new models of academic library quality. These models should use different available datasets containing information about the characteristics of academic libraries. She states the importance of using new methods to evaluate academic libraries, due to previous methods being outdated due to technological advances. Additionally, they need to examine students' demographics and experiences which might have an influence on the usage of academic libraries and educational outcomes. Moreover, focusing on other stakeholders of the academic library, for example graduate students and faculty members, is essential to draw more specific conclusions about the impact of academic library performance indicators.

In her study, Pritchard (1996) summarises the measurements and definitions of quality and effectiveness in academic libraries. The author focuses on assessment in higher education and investigates the correlation between library quality and educational outcomes. She suggests investigating how outcomes such as information literacy, success in graduate school and job seeking.

Walters (2003) critically examines the correlation between library services and student learning outcomes. The author argues that even though quality evaluation systems such as LibQUAL can measure students' perceptions of qualitative library characteristics, they do not necessarily stand in real connection to educational achievement. Another way of measuring the relationship between academic libraries and educational performance is the First Year Experience (FYE) program. The study by Schrader and Brown (2008) examines the FYE program in which the academic and social skills of first-year university students are being analysed. One variable is the ability to use the library resources and services efficiently. In general, students benefit from the FYE program which makes it easier for them to get used to the academic university environment and services such as the academic library.

2.6   Influencing Factors (Independent Variables)

This section aims to cover the variables incorporating academic library usage, which govern library perception of the three main user groups. The first is library training, which is a very important area with regards to correct library usage. Library training includes courses or workshops on how to use the library, IT skills, assignment structure and many other courses. Another area of influence is library IT

and the equipment and programs available. IT has become one of the most used resources within libraries, so providing adequate IT equipment is vital for a library to function well. Without sufficient equipment user perception of a library will be low. A library's collection is made up of physical resources as well as electronic resources. The quality of this information is an influencing factor on a user's perception, but quality is just as vital as ease of access to the material. Information must be easy to find and use in order for users to have a positive perception of the collection. A library's physical environment is another factor which governs user perception. The physical environment can change the mood of users within a library, resulting in either a positive or negative reaction to the surroundings. If any of the key factors do not meet the user's needs, this will result in a low perception of the library and could mean users will decide to go somewhere else to study.

2.6.1 Library Training

Nowadays, an important issue for academic libraries is to provide effective academic training for students, academics and university administrators in information literacy. Library training aims to improve users' skills in information literacy, which includes students ability to find information which is useful, relevant and of high quality. Library training has been covered by many previous studies, as it has an impact on the quality of work which students produce during their time in university. Traditional methods of library training are carried out by librarians or information literacy specialists, using face to face presentations or workshops. However, modern technology has advanced the field of training, leading to many university libraries offering digital training via the university network. The following studies investigate the differences in traditional and digital training, and what the future holds for library training.

Traditional library training in academic libraries is a valuable asset for students to use during their time at university. Training provides students with the skills they require to complete assignments and projects, and increases the quality of work students provide from high school quality, to university standard. Haley (2008) describes the positive reasons for attending traditional face to face training; being able to ask questions is vital as it reinforces the instructions given, working in groups also aids learning, people who lack computer skills will benefit from face to face

training. There are several reasons for libraries to offer face to face training to users, however the rise of digital training has seen a decrease in the use and need for face to face training. As time passes and a greater number of students pass through university with high levels in IT usage, this will only lead to a decrease in face-to-face training. However students still declared an interest in training during her study, with many students requesting more training should be offered. Haley states:

> *"Many participants expressed their desire for more training. Training not only increases their knowledge and skills needed for their job, but also provides opportunities to network with colleagues"* (p.38).

Digital training is used in many academic libraries around the world, and is seen as the future for academic library training. Haley (2008) describes user preference for online training compared to traditional face-to-face training. The study examines factors such as age, gender, race and prior education. She states that there are several reasons to use digital training over traditional methods which are, low cost after programmes are installed, no travel required, allows training to be undertaken anywhere, and requires no member of staff with the required knowledge.

Studies at the start of the millennium regarding digital libraries explain the implications of using digital training in the future. Hitch and Hirsch (2001) explain the use of the internet and the library training. Due to the date of the study the researchers explain the future of academic library training, and give insight into the current situation of digital training.

McHarg, Goding, Caldarone and McLachlan, (2006) support the use of traditional training methods in academic libraries, but suggest that traditional methods should be used in conjunction with digital training. The authors state the importance of well timed training in the use of electronic resources, stating that students should receive training early on in their academic lives. Poor training is described as one of the reasons students fail to use electronic resources regularly. During their investigation, students declared an interest for further library training to be provided, as training they had received was inadequate, which is also supported by Haley (2008).

According to the Association of College and Research Libraries (2008), information literacy consists of a set of abilities that require individuals to recognise when information is needed and then to have the ability to locate this information and to evaluate it and use effectively the needed information. These skills are becoming increasingly important in today's complex environment of rapid technological change and with the proliferation of information resources. Students, academics and administrators are faced with an abundance of information choices in their academic studies/workplace and personal lives. Information is not only available through libraries but also through community resources/special interest organisations/media, and the Internet with information available to individuals in unfiltered formats that raise questions about authenticity, validity, and reliability.

Grafstein (2007) further broadens the definition of information literacy as an intellectual framework that enables users to understand, find, evaluate and use information-activities. Furthermore, this may be accomplished in part by fluency with information technology but also by using sound investigative methods, but most importantly through critical discernment and reasoning. Thus it is important that the use of current technologies are taught and also used in academic and other learning settings but also teachers should enable students to develop the skills to feel confident in approaching and learning new technologies as they become available. Grafstein shows there is a historical component in the current emphasis on the importance of developing the capacity for lifelong learning. There is a lot of information available for organisations stressing the importance of learning organisations, knowledge management and other forms of organisational development through the use of knowledge workers and the capture of knowledge within institutions. Therefore, schools and tertiary institutions set the stage and make sure employers get employees that have certain skills but also have the ability to learn new skills through the education received in these settings teaching them to be active rather than passive learners.

2.6.1.1. Information Literacy

Information literacy is a key outcome of higher education. Many academic libraries focus on improving the skills of users through information literacy courses, workshops and orientations. A commonly accepted definition of information literacy

is defined by Bruce (1999) as "the ability to recognise information needs and to identify, evaluate and use information effectively". Likewise, Pawley, (2003) defines information literacy as:

> *"...the skills to use and locate information in a variety of formats, and the intellectual ability to evaluate such information, as techniques or 'tools' essential for a successful adaption to the rapid social and technical changes that we will all face, we are told, throughout our lives"* (p. 423).

Johnson and Eisenberg (1996) confirm the importance of computer literacy in their study which focused on computer skills in university that enables students to use e-mail to contact their classmates or their faculty to discuss assignments, or to prepare information for the class via presentation software.

Academic libraries have become progressively more technology intensive and this has changed both library collections and the way they deliver services. According to Sellers (2005), the future of colleges and universities is tied to technology, and decisions are tied to technology output. Decisions about incorporating alternative methods are connected to how much importance is placed upon technology to aid academic administrators toward their goals.

Information technologies help users easily move between a library collection and its information resources. Bruce (1997) comments on the role of information technology:

> *"Information technology is the focus of attention and information is viewed objectively, as something outside the individual. One of the major roles of technology is to make that information accessible, or to bring it into awareness. Technology also plays a vital role in allowing the information user to stay informed and to manipulate information that has been located"* (p. 117).

Information technology is an important subcategory of information literacy since many knowledge resources can be accessed in the media and technology environments. In order to successfully use a great variety of information, the individual has to be comfortable and keep up with new developments in the field of

technology. Information technology literacy is not only limited to the ability to use technology but also includes the desire to randomly seek information (Bruce, 1997).

There are three information standards which academic libraries around the world may incorporate in their operation. The standards of the Association of College and Research Libraries (2000) are widely used in colleges and universities in the United States and Canada. The standards were published in 2000 and many librarians now base their information literacy instruction programs and assessment instruction on the *Information Literacy and Competency Standards for Higher Education,* including Vogel Library at Wartburg College and the University of Louisville Libraries (Gullikson, 2006). Colleges and universities can use these elements to shape and assess their information literacy programs. The principles used in this standard are based around what an information literate person can achieve in the library, by using the library services correctly.

The advantage of this standard is that it makes students identify their information needs and then provides them with a framework for controlling, in advance, how to interact with information in their environment.

Other standards used outside the USA consist of the Council of Australian University Libraries CAUL (2004), and the Society of College, National and University Libraries SCONUL (1999), used in Australia and the UK respectively. CAUL first released its standards in 2001 after getting the approval from the Association of College and Research Libraries (ACRL) in early 2000. The standards have been designed to provide individuals in higher education with a set of skills, competencies and fluency which are required in order to successfully use information to complete higher education tasks and create a basis for students' working and social lives. The standards specify that a literate person should be aware of the need for information while being able to access information effectively and efficiently.

However, the CAUL is a not an accredited standard in terms of global usage. It can more specifically be called a curriculum framework document acting as a guideline for libraries and their stakeholders.

SCONUL reinforces users with the idea that quality information is of value and understanding what information is of value is a vital skill. The guidelines suggest

that there is more to gaining information literacy skills than just spending a certain amount of hours at the library. The continuous usage of IT and the Internet has a positive impact on subject-specific and generic skill learning objectives, which include information literacy skills. Therefore, the use of IT is one of the four key skill areas students should improve during their studies, along with learning to learn and numeracy as well as communication skills. The SCONUL model is currently being used in many different ways, for example in program design (Town, 2000).

The three standards discussed aim to provide a basis to develop information literacy education and improve the information literacy skills of library users.

2.6.2 Library and Information Technology

For libraries in today's climate, it is impossible for any kind of library to operate without a strong reliance on information technology (Jones, 2009). IT services in university libraries have recently witnessed significant expansion in terms of services provided to students, academics and university administrators. In fact, information technology services in academic libraries not only provide traditional services but also provide several kinds of services to end users in their own homes. As a result the services provided by library IT and the ease in obtaining them, IT services have become one of the more important functions of the library, in those students, academics and administrators no longer fully benefit from library services without using IT.

According to MacDonald, Van Duinkerken, and Stephens (2008), "the popularity of Google and the notion that all information is available on the Internet has created a very competitive service environment for academic libraries" (p. 375) and in competing effectively academic libraries have to aggressively market the variety and quality of their information resources. This concept of marketing in libraries, and specific library services in particular, has been discussed in the literature for some time. Search engines are a useful tool only if users are aware of how to find good quality information.

Information and communication technology (ICT) is described by Mlitwa (2007) as being instrumental in all social transformations going back to the industrial society of the twentieth century and culminating in the current network society of this new age of "*informationalism*" linking the world through the internet. Mlitwa

argues that "*the adoption of teaching and learning technology such as e-learning and of learning management systems (LMSs) is also on the rise among higher education institutions*" (p. 54) with no general agreement on the meaning of these concepts of adoption and use within academia.

Ravjee (2007) discusses "digital universities" and in particular the African Virtual University, consisting of more than 30 higher education institutions from 17 African countries in the context of the increased use of online learning in contact universities. The author states that libraries should start to change their styles to a "digital institution" for the future generations.

2.6.2.1. Library Web Pages

Web page servicing is an important factor of information technology that is changing the face of university libraries, their organisational structures, and the way in which they deliver services to their students, academic staff or university administrators. Heinrichs, Sook-Lim, Su-Lim, and Spangenberg (2007) find that the intention to use the university library web page had an impact on the user's satisfaction with the website, and the perceived usefulness of the website factors as one of the main information technology impacts on users.

To ensure satisfaction and increased usage by university library users and specifically students, web site evaluation should become a critical component in the overall college or University library evaluation model. With the ever-rising use of digital materials and webpage services, the evaluation of a university library's web page is important in considering the general quality of academic library services. Consequently, academic library administrators should focus more on managing and designing effective academic library web pages that fit the needs of all users of university libraries (Heinrichs et al., 2007).

Detlor and Lewis (2006) recommend that university libraries adopt the following general strategies for improving websites to positively impact on users:

a) Library administrators are encouraged to inspect and test their understanding of what users actually do with library resources and then to build the Web site around those central tasks rather than trying to base design on current administrative structures, resource formats, and interfaces.

b) Library websites should focus attention on information seeking activities rather than administrative information that relates to the library itself. Also search functions should be positioned where students, academics or library visitors will find them easily.

c) Library administrations ensure that users can perform both a direct catalogue search and a search of the library web page from the home page. Therefore, users will get easy and quick electronic access to all types of scholarly information.

2.6.2.2. Library Communication

Library communication has become a key theme for university libraries around the world. The purpose of library communication is to increase the speed in which messages can be delivered by the library and reduce time lost by library staff. Several researchers ask how tools could be used to improve the way academic libraries communicate (Marshall, 2001; Rao, 2001; Wallis, 2005). Examples of useful communication tools include library administrators informing users that the title of the new resource they have reserved is available, or informing library users that their resources are due for renewal in the next few days (Wallis, 2005).

In terms of communication, university libraries are actively engaged in incorporating electronic media on network environments (library catalogues and web pages) to provide much-needed primary research information (Rao, 2001).

2.6.2.3. Networking

Online networking at university libraries has given users many ways to communicate with their libraries. One way is by using chat widget providers, such as Meebo (Java script), Plugoo (Flash), AIM WIMZI (Java Script or Flash) and Google Talk. Devoe (2008) examines some features of chat widgets that enable quick communication between libraries and users, for example, storage and retrieval of chat transcripts, and the ability to observe the number and length of stay of visitors on a web page. Chat widgets offer libraries and library users a simple way to communicate online. Widgets also offer reference librarians a way to communicate with users about the information they need. Other features of chat widgets include confidentiality, being able to speak with more than one person at the same time, designing the screen to the user's taste and being able to receive e-mail messages

from people who access the webpage. As reference tools, chat widgets are still being improved and developed. Meier (2008) notes in relation to his research on the use of chat widgets, that:

> *"The use of chat can be as simple or confusing as the website itself, but it helps to make a choice that fits the Web design and the organisational cultures ... Libraries are already institutions grounded in helping their users, and chat widgets can be another bridge of communication"* (p. 48).

As discussed earlier, university libraries provide several kinds of services to students, faculty members and administrators. To ensure the quality provided to their end users, libraries should maintain efficient and effective communication routes. These communication routes are needed to provide information to users regarding promotions of new resources, new services or any updating of the library. In addition, university libraries can receive feedback from their users regarding how the services provided can be improved. Consequently, efficient and effective communication, library web pages and networking opportunities are essential components of an impact evaluation for university libraries.

2.6.3 Library Collection

Traditionally, university libraries have tried to build a high-quality collection of print and electronic materials that are relevant, cost effective and meet the user's needs. The quality and relevance of a collection are indicators of the impact evaluation of a library to its users. In a university, evaluating and updating library collections is important because courses are changing every year and academics expect students to be able to access current research materials. Collection evaluation can be the crucial factor for attaining a well-developed collection. Most collection development activities are, in some manner, reviewed during a collection evaluation (Baird, 2004; Soutter, 2007). Library collections are evaluated by library administration, which can sometimes lead to shortfalls in the quality of the collection. Pankake, Wittenborg and Carpenter (1995) state that a lack of specific knowledge regarding certain studies can result in a lack of quality library materials.

Digital collections within a library are considered the future for libraries, with many academic libraries heavily investing in e-materials. Bodi and O'Shea (2005) recommend that libraries invest heavily in e-materials, as this is the future of

academic libraries, but maintain a high quality printed collection. Also they suggest that departmental learning outcomes should be complimented with regards to collection by library administrators collaborating with academics. Analysis should use a variety of tools to analyse the collection using both quantitative and qualitative measures (Bodi and O'Shea, 2005).

2.6.3.1. Electronic Resources

Since the start of the millennium, electronic resources have been integrated into libraries, including academic libraries. At present almost every academic library in the world will have a collection of e-materials. Research has shown that one of the advantages of e-learning was the amount of time saved in the retrieval of information resources (Appleton, 2006). Further support for e-learning can be found within the research. The idea of students learning from e-newspapers rather than conventional handouts within class is more engaging, therefore a better learning experience.

Scoyoc and Cason (2006), investigate the use of the Internet and the role it plays in student learning. They found that the majority of students use the Internet first when it comes to research for their studies. Student questionnaires regarding study techniques suggest that using search engines is by far the most popular method, and the least favourable method is studying with librarian assistance.

Studies have suggested that students do not require high computer literacy standards due to the ease of using the internet for research, meaning students use databases less to find the information required. It is suggested there is no impetus for students to look beyond the Internet for research (Scoyoc & Cason, 2006).

Mann (2001) focuses on the comparison between print collections and electronic collections, showing that print books are an important factor still having a large impact on library users. Print books need to be the maintained in academic libraries as well as other kinds of organisations, many materials are published every year so the library must keep updating collections annually. Since 2001 there have been huge developments in e-materials and the speed and quality with which they can be used and manipulated, meaning their popularity has increased.

The study by Curtis and Scheschy (2005) outlines the scope and variations of electronic journals and how they can be placed in official bibliographic categories.

This study has a very comprehensive study on why and how to gather statistics for acquiring usage data of electronic journals and databases. The advantages and disadvantages of presenting journals in HTML and/or PDF format are also discussed as is search ability and likability. It acknowledges the difficulties inherent in this but suggests useful standards and guidelines to follow, and how to process and analyse this data once it has been collected.

The authors acknowledged that this kind of information is very useful as libraries are increasingly being asked to justify how they spend resources and set priorities. Analysing usage helps to determine which journals to keep and those that need weeding. It assists in tracking change, supporting day to day operational decision making and strategic planning. It also assists in comparing libraries and in assessing quality according to Curtis and Scheschy (2005). Therefore Return on Investment (ROI) and benchmarking is greatly assisted by having these statistics collected, processed and analysed. The authors also detailed the problems that librarians have run into in this area with publishers and vendors.

2.6.4 Library Facilities

Library facilities are important in running a successful academic library. Judging the quality of these resources and deciding when to upgrade equipment is vital in keeping library attendance high. Facilities are usually described as equipment provided for public use within the library such as computers, printers, photocopiers and meeting rooms. The quality of these will govern users' perceptions of the library, and could lead to users not using the library if resources are considered sub-standard. It is important to understand what users need, and any improvements to the facilities should be based on user feedback. One challenge for libraries is ensuring that any change to their services and facilities actually meets client need and is not merely a knee-jerk reaction to an assumed understanding of client needs.

It is suggested that computers play a large role in academic library usage; therefore it is important to determine how many computers are needed in order to meet peak capacities. Burke et al. (2008), state that one of the main aims of their study was to determine which area of the library students wished to use computers to study, as well as the quality of the computers and equipment.

Computer workstations in modern libraries need to be carefully planned in their layout. The shape and area provided for students to work can have a big impact on their work output. McMullen (2008) describes that modern arrangements of computers are often referred to as pods or clusters, and offer ample space for students to spread out materials and books. Other arrangements are serpentine rows, clover leaf, Y shape, circular or octagonal pods, curving rows, short straight and many more combinations.

2.6.5 The Library's Physical Environment

According to previous studies, the library's physical environment influences user perception. However, former researchers looked at different variables and evaluated them with varying methods. Therefore, a precise definition of the library environment is difficult to find. As for academic libraries, it is more effective to focus on the combination of variables and its opportunities and threats within the library environment, and evaluate it through an individual framework of evaluation methods (Corrall, 2000).

Clee and Maguire (1993) investigate the relationship between the library's physical environment and the usage of academic libraries. They state that the library environment consists of variables such as layout and guiding, borrowing and returning, seating areas, heating and lighting, furniture and colour schemes, and their cumulative effect. Besides interviews with students and library staff to discuss the above named factors, they used the observation method and submitted questions on future libraries to experts through the Delphi technique. The expert interviews concluded that the university status will influence funding and perception. The overall trend towards group work and research-based learning as well as the increasing demand of IT networks and equipment will require future libraries to change to meet users' changing needs.

The final results of Clee and Maguire's study state that all the variables of the library environment influence the user perception. However, the combination of all factors has the greatest effect. Although some users do not seem to notice certain environmental variables such as decoration and atmosphere, they influence the overall perception of the library environment. During the interviews, some users suggested the following improvements:

- provide a guiding and library map

- use daylight-simulation light-bulbs

- improve the regulation of the temperature and the air circulation

- increase the usage of natural decoration such as plants

- enforce quiet-study areas

- rearrange library to offer more convenience to users.

The study of Shoham and Shemer-Shalman (2005) focuses on the impact of furniture in the library environment. They observed the preferred seating areas of students and the use of furniture including chairs, armchairs, computers and the librarian station. They found that about half of the students tended to sit on reading tables, while the other half used armchairs, computers, the librarian station, seating areas next to the photocopiers and the space between the bookshelves as their study areas. Shoham and Shemer-Shalman discovered that the majority of the academic library users have a need for territorial control and personal space. It is also important to provide enough study room for quiet learning.

Denda and Smulewitz (2004) consider a different variable of the library environment in their study. According to the results of this study, an effective IT environment increases the ability to work in a team, provides the framework for individual working tasks and enhances flexibility. It also helps librarians to serve users faster and more accurately.

2.6.5.1. Library Space and Place

Since the need for information access and the number of students at most of the universities are increasing each year, academic libraries have to consider the constant change of their facilities to create a convenient and inviting environment.

Waxman, Clemons, Banning and McKelfresh (2007) declare that the library environment has changed from a pure study area into a social place where students meet and socialise. Coffee and snack shops, an academic advisory centre, a tutoring centre and a reading and writing centre equipped with comfortable seating areas help to transform the library's lobby into a meeting place for students. Within this environment, spacious square or rectangular tables have proved to be most efficient

for group and individual work. Moreover, views to the outside are preferred by the majority of the students. If outside views are impossible, views to other parts of the library are essential.

The study by Applegate (2009) considers the freedom to talk, and viewing the library as a social environment, as one of the key components of library space. For this reason, libraries should not only be a place where services such as reference, instruction and computer use are provided but a place where needs such as personal space, social activities and other requirements to the study space have to be taken into consideration. Moreover, academic libraries have to offer flexible study areas that effectively suit either individual or group work in the different work load stages of the semester. Overall, Applegate agrees with the statement that library design should go beyond basic library services but take a wide range of student needs into account.

Stein, Edge, Kelley, Hewlett and Trainer (2008) describe a multiple-methods approach to examining and enhancing the quality of walk-in service points at a major university library. Selected methods include focus groups, benchmarking, surveys, transaction analysis, activity mapping, and secret shoppers, which resulted in the consolidation of service desks. The study deals with locating precisely the various points of patron service and delving deeper into their functions. These include offering patrons a place for social networking and studious collaboration with wireless network access, 24 hour study lounge and coffee shop, group study rooms, laptop loans, and a rich complement of electronic and digital library resources in a medium-sized academic library environment.

2.6.5.2. Furniture, Lighting and Colour

Furniture, including lighting and colours, in academic libraries is essential because it creates the basis for the working environment. The research of Webb, Schaller, and Hunley (2008) describes the reasons for selecting a particular study floor. The results show that the majority of the users find furniture the most important component in their library environment, rather than window views, computer and wireless access, whether the floor has the books needed or friends studied on that floor. Moreover, they recommended implementing a group computing area with comfortable furniture for a modern and social environment

aimed at user retention and user satisfaction. Furniture that can be used for either individual study or group work adds flexibility to the overall library environment. Within this scope group study spaces have to be comfortable, facilitate interpersonal communication and integrate basic human needs and desires with learning activities.

Lighting is another important component in the academic library environment. As Houlihan (2005) states, the level of lighting is important since both a too bright or too poorly illuminated room, decreases the usage rate of the respective library area. The right type of lighting creates a comfortable zone in which students like to spend their time for either study-related or social activities.

Margeton (1995) recommends asking an architect about the lighting-type and lighting-intensity of the library. Moreover, experienced librarians should be asked for advice about lighting. Aside from different types of electric light, windows affect users' moods the most and impart a sense of direction and location. Where outside windows are impossible, windows to other areas of the building should be considered.

The study of Clee and Maguire (1993) states that the majority of their interviewees did not notice the colour scheme of the library while others strongly disliked it. While the majority did not notice the colour scheme, it could still be put forward that it is important for academic libraries to take the colour scheme into consideration when designing study and social areas.

2.7 Academic Library Users (Dependent Variables)

University libraries attract affiliated users including students, faculty, university staff and visitors. Therefore, quality services must be provided so that these groups may access the specific information needed. Information needs of users are changing. University libraries have a large electronic and online collection such as internet connection, databases, e-books and e-journals. Debowski (2000) explains that:

> *"With the increasing use of electronic resources, a change pattern of usage is evident. The ability to connect to library services through the internet and to access information services from other sources has reduced the capacity to characterise and categorise users"* (p. 175).

2.7.1 Students

There is increasing demand for students in higher education to become information literate and to improve their general skills such as critical thinking skills, technology skills and training skills. Students' increased exposure to ICT should enable them to use ICT more effectively than in the past. General articles about how this is achieved deal with specific examples, strategies and resources used. Hennig-Thurau, Langer & Hansen (2001) investigate student library skills and how the university library can be considered as one of the campus auxiliaries impacting on students' impressions of their university experience. This in turn leads to the question of how a library impacts on a student's university experience. Lawson (2004) explores how libraries can support students by providing a place for socialising and relaxation. There are other criteria used by students to measure a library's worth and these will also be discussed.

The skills of students vary with regard to how they use the university library. In general, a new student who comes from high school may or may not have the necessary study skills, such as IT skills and related skills, to have confidence in the library system (Oyston, 2002).

Bruckman (2005) suggests that universities need to teach students how to choose effective search terms, and how to use peer reviewed journal articles, eBooks, magazine articles, and websites. She describes that teaching students on-line research skills is similar to past practices of teaching students how to use the card catalogue.

Schrader and Brown (2008), find that students at tertiary institutions consider acquiring library skills as an opportunity for acquiring the knowledge and skills that will enable them to succeed in the workplace and in advancing their general knowledge and life skills. The rate of entry into institutions indicates the degree to which a country's population has acquired higher-level skills and knowledge.

2.7.1.1. Undergraduate Students

University libraries are gradually reconfiguring their services to better support undergraduate students and provide them with the opportunities to better understand their information needs. The study of Whitmire (2002) examines the library use patterns of undergraduate students and found that they used the online or card catalogue to find related resources more than any other library service in the first

year of their study. She suggests that academic library services should include teaching undergraduate students particularly first year academic students, how to use library catalogues, databases and other websites to meet their information needs. Another relevant study, Sobel (2009) discovers that the undergraduate students in their first year of university prefer library reference service promotions given in person. It is important that academic librarians make a significant effort to promote their services to undergraduate students through numerous methods. For example, distributing flyers at freshman orientation, creating links on the library home page for chatting, and reference services.

Undergraduate students have typically studied a conventionally designed course, and therefore they may often lack the basic skills to make good use of university libraries. They need to acquire a number of new skills in order to become effective library users. For example, they need to come to grips with the sheer range of resources and services at their disposal. As undergraduate students are the largest group at most universities, they will expect a range of services to be available (Brophy, 2000).

Lee (2008) discusses how undergraduate students seek information using various methods. That is, they utilise the many ways that university libraries organise information resources to assist students in evaluating and locating information. For example, to save time for undergraduate students, most academic libraries have designed areas for cartographic materials and resources. As a result, students looking for maps do not need to go through other types of resources during the search process.

2.7.1.2. Postgraduate Students

Many academic libraries are increasingly supportive of postgraduate students through formal instruction programs. This is because postgraduate students need a greater depth of information literacy specific services and materials than compared to undergraduate students (Bruce, 1992; Jacobson & Williams, 2000). Libraries support postgraduate students with services that offer personal consultations between researchers and reference librarians. They also provide individual training and research assistance as well as special courses or workshops.

2.7.1.3. Distance Students' Needs

Distance learning or off campus study allows students to study if they are unable to attend university or college. Due to technology and Internet networking, distance education has become more popular with many universities providing undergraduate and postgraduate courses. Thanks to the Internet, course materials can be uploaded from university websites, students can work from home based on instructions received from the course tutor, and video conferences can be held with tutors to discuss assignments and gain feedback (Bruce & Candy, 2000).

Distance learners also need IT support in order to complete their coursework or assignments. These information technology needs are often met by librarians who provide electronic tools and services to assist the distance education support staff and faculty (McDonald and Turnage, 2003).

2.7.2 Academics

Most academics or faculty members have both teaching and research responsibilities that academic libraries should support. University librarians usually request reading lists from faculty members well in advance of the start of the courses to support their teaching and to allow time for them to be proof read.

2.7.2.1. Faculty – Librarian Collaboration

Professional scholars and library administrators recommend the idea of collaboration between faculty members and library staff. There are several advantages to librarians working with faculty members because librarians are able to provide assistance if faculty and students have questions regarding their study. This saves time and improves research quality (McAdoo, 2010). If faculty members support and understand the library and engage in regular collaboration, the research library will survive and will have guaranteed the active and irreplaceable role of the library in higher education.

It is important to keep in mind that faculty librarians can become expert subject guides in the course of experience, collaborating and sharing knowledge with each other (Cunningham & Lanning, 2002). In addition, Rockman (2001) suggests that librarians must work closely and make good relations with faculty members to help students find, organise, evaluate and apply the content of the information they need.

Collaboration is regarded by Rockman as important for academic libraries to improve.

According to Jenkins (2005), academics can rely on librarians to teach them information literacy skills. Faculty members should never feel embarrassed if librarians are telling them how to teach or what they should teach regarding information literacy. Jenkins advised that not all faculty members are open to learning about information literacy and encouraged librarians to concentrate first on those more open to conversion. When enough faculty members are convinced of the merits of information literacy, word of mouth will spread the good news.

Breivik and Gee (2006) provide useful ideas to improve the skills of academics through training with librarians. Such lessons or workshops could increase productivity right the way through the campus, and demonstrate how library services and resources can help them perform their jobs more effectively and efficiently. The authors suggest workshops to improve how academics approach certain factors, including how they:

- schedule library information literacy workshops

- request purchase of library materials

- contact library liaison staff

- use other processes where attending a workshop can potentially save both classroom instructors and library personnel a great deal of time and frustration.

Faculty members have to consider that libraries are not only collections of books and journals, but a place for improvement of many types of skills. In university libraries, academic librarians can help students locate and evaluate information by providing appropriate information skills, programs or specific workshops. Faculty and librarian collaboration in information literacy can be more effective and can build powerful programs and courses about information literacy that serve the library and university. For example several studies demonstrate how information literacy programs have generated valuable collaborations between faculty members and academic librarians (Macklin & Fosmire, 2004; Somerville & Collins, 2008).

In order to improve library communication with academics, Yang (2000) suggests that the university library must periodically remind academics of the library services available to them and their students. Yu (2009) advises that the establishment of an active relationship and good communication with the faculty members is critical to ensuring a harmonious working relationship. Also, providing a financial reward for faculty members based on their time and effort, or extra points for their annual teaching evaluation, is probably a suitable incentive for them to collaborate with the librarians in promoting resources and services of the library.

2.7.2.2. Academics Use of Electronic Resources

Academics are often referred to as the most frequent users of electronic resources in academic libraries. Ollé and Borrego (2010) support this statement by stating that the increase in electronic resources has led to academics being the most frequent users of e-materials, although most use them remotely from their offices. Research by Meho and Haas (2001) reveals that besides using traditional methods for locating relevant information, social science scholars used the Web and email in their information seeking. Approximately 90% of the social scientists examined in the study indicated that they had used electronic resources in their research.

Smith (2003) supports the theory of academics using the libraries' electronic resources to a greater extent than the printed collection. The author states that electronic resource usage had almost doubled in three years from 1999-2002. The use of library subscriptions was high in this study, with 74% of all academics using electronic resources either personal resources or library subscribed resources. She concludes that although library attendances are falling, the use of library resources is on the increase electronically.

Shelburne (2009) investigates the users of electronic resources within academic libraries, and determines their satisfaction with the quality of the resources. Academics used electronic resources the most, with 60% stating that they used electronic books. Whilst working, 30% of academics claimed to use electronic resources daily, which gives a good indication of the value of electronic resources to academics. The author states that although academics have a preference for electronic resources, many academics like to combine this information with printed collections to complement their research.

King and Montgomery (2002) show the impact of electronic journal collections on academics. They describe the changes in the Drexel University Library that resulted from the use of electronic resources. They found that 70% of academics read electronic articles. They found that 80% of the electronic articles that were accessed were five or less years old, while electronic articles over five years old made up only 45% of those accessed. This indicates that university or college libraries need to be concerned about providing new issues of articles (published within the last five years).

Lenares (1999) finds that the percentage of use of electronic resources by academics from different faculties increased every year. Lenares presents a survey that studies the percentage of use of electronic journals by scientists from different disciplines. Also, the study found that the percentage of academics using electronic journals had increased in all disciplines. Another result of this study showed that the use of e-journals by academics in the biological sciences and physical sciences was 90%. This percentage reflects a positive impact of electronic resources on academics. According to Brown (1999), who surveys academics of the Science Faculty at the University of Oklahoma, approximately 43% of the academics of this faculty were using electronic journals for teaching and research.

Gardiner, McMenemy, and Chowdhury (2006) conduct research based on a web-based survey that sought to analyse the usage of and attitudes toward print and electronic resources of university academics in Britain from five faculties. The study found that academics from the Computer and Information Science (CIS) and Language faculties used Library OPACs more than other faculty academics. In addition, 71% of academics from the language faculty used books, printed and electronic, at the highest level, in comparison with only 45% of business and management academics using books, and 40% by CIS academics, indicating that academic libraries are more useful and important to academic users.

Several studies have suggested strong connections between academics and the use of electronic resources. The current study aims to investigate this link further and collect relevant reasons as to why academics have this preference.

2.7.3 Administrators

University administrators are aware that university libraries are the intellectual centrepiece of the university, reflecting the culture and the value system of the campus (Korobili, Tilikidou, & Delistavrou, 2006; McCabe & Person, 1995). Qualified administrators of any university are in a position of power to influence where the greatest increases can be acquired from developments in efficiency (Kao & Hung, 2008). Webster and Jackson (1994) identified that university administrators are driven by the challenge of containing the costs of higher education and that the access model is an attractive alternative to the capital and operating cost requirements of maintaining a comprehensive library record. In turn, the educational institution provides the academic library with monetary resources to fulfil their mission. Atkins (1991) describes the relationship between the university administration and the academic library as follows:

> *"Every collegiate administration has the responsibility for the successful running of its institution, and the library is considered by the administrators as only a small part of this task. On the other hand, the library consumes a significant portion of the resources of any college or university budget, and at budget time the library seems like an uncontrollable drain on the university's resources"* (p. 93).

However, individual university processes cannot be *generalised*. Goals and objectives of universities vary slightly and every institution uses its own bureaucratic behaviour.

This section will highlight how more active use of university libraries can assist academic administrators in other ways such as providing workshops, orientations and training on library databases.

Basefsky, (2000) suggests that university libraries should promote information literacy abilities among administrators. This would enable administrators to achieve goals and objectives because they have significant responsibilities for the function of the academic organisation and their positions are important to the university. In an effort to bring the library's strengths in line with the objectives of the university, administrators can be taught how to use the latest information tools, including

databases, internet services and existing print and electronic practitioner materials provided by the library. The idea behind the training sessions is to:

- increase the productivity of administrators by empowering them with the ability to use sophisticated information sources. This includes training in library research methods and multitasking (how to cut and paste from one or several sources into word processing or email programs), with emphasis put on the production of reports and memoranda

- enhance administrators' creative alternatives by acquainting them with an enlarged scope of information sources, ideas and communication processes

- demonstrate that the library can be an active player in making the university more competitive by providing training and consulting services.

Celone (1988) describes training programs as instruction sessions or orientation for faculty members, academic administrators and support staff in a university. The study is a useful source of ideas on which to base an orientation session. However, it does not account for the vast increase of computer use, information technologies and electronic resources in libraries.

Hurst (2003) designed a model orientation program for administrators and support staff to assist them with information and library services. The author believes that administrators' needs and behaviours as library users are different to the research needs of faculty members and students. Also, this user group often seeks demonstrations for ways of gaining the needed information.

This orientation program intention was to present the library and media centre's services and resources. It aimed to encourage administrators to make use of their services and resources, and offered them some basic skills to begin to address their information needs independently. Additionally, library staff wanted the academic administrators, faculty and support staff to be able to:

- locate service points in the library

- become familiar with the library's physical and virtual spaces

- be able to search the online catalogue and databases

- order resources from other branch libraries

- feel comfortable approaching library staff for help

- become aware of the ways the library can assist them with their information needs.

Bibarz, Bosch, and Sugenet (2001) discuss needs assessment in academic libraries. This is especially useful for university administrators as it goes into some detail about the enormous costs that have been placed on libraries by the use of journals in databases. But the most significant use for this document is that it sets out in exact detail how to conduct a needs assessment and how to determine the measures used. It also has extensive information on how to determine what secondary data is and how it can be used to determine needs assessment and also how user needs assessment can be most accurately determined by avoiding some common pitfalls. It also has a useful glossary and bibliography as well as World Wide Web resources.

This section of the literature review revealed that research is mainly focused on students and academics with little attention paid to administrators. This gap in the literature was addressed by the researcher by paying equal attention to all three groups of users. The administrative group is a significant part of the university community and the perceived personal performance of library services on this group is a vital aspect of library use evaluation.

2.8 Models for Academic Library and Usage Perception

Traditional measures for evaluating the quality of college and university libraries included collection size, number of staff, size of budget, number of users and number of journals. In the past decade, standards for measuring university libraries have been developed, including measures for assessing the changes brought about by new services (Hernon, 2002; Poll, 2006; Weiner, 2005). These standards provide powerful guidance on the best library performance measurement to be used and on the ways data can be collected. Measurement of perceived personal performance supports the management of change by offering a better understanding of the effect on users of the innovations and changes that are implemented (Everest & Payne, 2001; Payne, Crawford, & Fiander, 2004).

In this study, several questions in the questionnaire and the semi-structured interviews are designed to measure the correlations between academic libraries and academic performance on users.

King, Boyce, Montgomery and Tenopir (2003) present the conceptual framework for library metrics, as shown in Figure 2.1. It was designed to assess the perceptions of library administration, library users, the library funders and the higher community which serves through the library. The model has been adapted with regard to the outcomes from the original model, with new definitions defined from the original. The input of the services is the easiest to quantify and have been used by staff for a long time; these include library collection, staff, facilities and equipment, which are often measured only in dollars. Also, the outcome measures are usually used to indicate the degree of library services, which are grouped into six broad categories: amount of output, attributes of output, quality, timeliness, availability and accessibility.

Measurement Perspectives	Specific Metrics	Derived Metrics

Library

Inputs (Resources)
    Amount of resources
    Attributes of resources   **Performance**

Outputs (Products/Services)
    Amount of output   **Cost- effectiveness**
    Attributes of output
    Quality
    Timeliness   **Effectiveness**
    Availability
    Accessibility

User
(Actual and
Potential)

Usage (Use and Nonuse)   **Cost-Benefit**
    Amount of use and nonuse
    Factors affecting use and nonuse
    Ease/cost of use (price paid)
    Available alternatives
    Purpose of use
    Importance of and satisfaction with
    Attributes of use
    Awareness

Organisation

Outcomes (Consequences of Information)
    Time saved
    Improved learning
    Improved productivity
    Improved quality of work   **Impact**
    Improved timeliness of work
    Effects on Organisational goals
    Higher order effects

**Community
Served**

Domain (Environmental Characteristics)
    Target population
    User/nonuser population characteristics
    User/nonuser information needs/requirements
    Externalities

Figure 2.1 Conceptual framework for library metrics. Adapted from "Examples of the comparison of electronic and print journal collections and collection services," by D.W King and B. Boyce, 2003, *Library Trends*, 51 (3), p. 379

According to the definition of King et al., outcomes are consequences of having used the information offered through the library services; as a result outcomes indicate the effect of services on the users. The performance is defined as the relationship between the inputs/outputs and how well they perform. This model helped to define PPP for the three groups involved in the study.

The last step of King's model is the domain, which is set in a networked information economy. Domain metrics also consider characteristics of the community served through a library service, for example experience, how many users and number of users served. These characteristics consist of four categories: target population, user/nonuser population characteristics, user/nonuser information needs requirements and externalities.

Brophy (2005) provides the Level of Impact (LoI) model which is considered to be the earliest in the e-learning field and which Brophy finds helpful for evaluators of his "people's network", through its ability to analyse the data provided by staff. This model focuses on improved user perceptions, which relates to the FALU model which is entirely based on defining user satisfaction in academic libraries. Brophy reported the need for further refinement of the model:

> *"The LoI approach has not yet been tested in longitudinal studies which are designed to gauge how individuals move through different levels…the LoI model was not sufficiently developed and established to be built into that work. This would remain a possibility for the future…it is not clear whether this kind of approach works well with broad service evaluation rather than studies of individual projects and products. Again, further work is needed to establish this…for libraries; there are difficulties in isolating the impact of their services from the broader environment, since users are always engaged with a wide variety of environments and services. However, by shifting the focus to changed behaviours the LoI model may be helpful in isolating particularly significant interactions"* (p. 47).

Defining the impact or outcomes on the academic library leads to several problems. Library services have a different value for each library user, which makes finding the most important service a difficult task. The long term effects of impact cannot be gauged as students leave universities every three or four years making it difficult to prove any results that using the library improves user PPP. The final difficulty is isolating the contribution of the library from outside influence such as friends, teachers and the Internet.

Markless and Streatfield (2006) adopt the approach of developing a set of useful impact indicators to work through the steps needed by library administrators

or managers. As the model in Figure 2.2 shows, it is possible to link impact indicators with the objectives which ask what is trying to be achieved. In the end of the process, if managers want to go with it, they should choose the way to put together a workable development plan and implementation timetable. In addition, the authors recommended starting at the top of the model (with overall purpose/mission) and systemically working towards generating appropriate indicators at each of the steps: success criteria and impact indicators, output performance indicators and process/performance indicators.
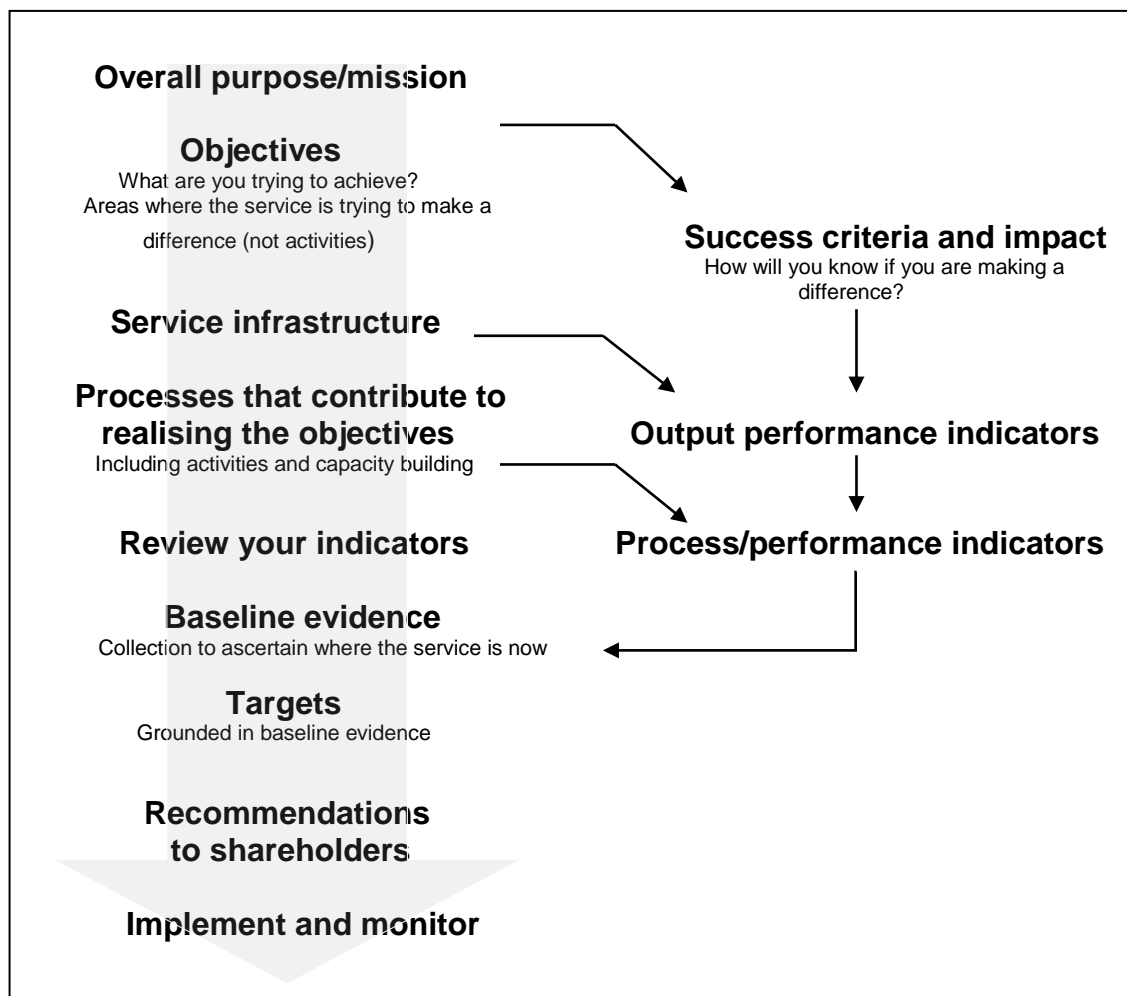
Figure 2.2. Developing performance and impact indicators. Adapted from "Evaluating the Impact of Your Library" by S. Markless and D. Streatfield, 2006, London: Faced Publishing.

There are five points to watch in this model as follows:

1. determine the objectives and translate some of them into impact indicators which will take at least about two hours

2. it is important to point out that you should spend time on the steps of the model

3. it should start with the overall purpose/mission (the top line of Figure 2.2) and work systematically down the sequence

4. for showing the evidence of progress, you need to collect baseline information through service or program which is having an impact

5. this model is useful for development planning with the collection of relevant baseline information in order to be capable of setting sensible targets.

Markless and Streatfield advise library managers to use this model; they should work as a senior management team, because they will gain more if they work all the way through the stages with colleagues than if they use this approach individually.

These models have been used for the current research based in Kuwait, and have been adapted to suit the specific requirements of the study. Kuwait university libraries use American style methods and standards, making the models suitable to use in all three of the universities in the study. Therefore the outcomes and input measures of American university libraries are aligned with those of Kuwait university libraries.

2.9   Conclusion

After studying the literature, there are similarities between previous studies and the current study. One similarity is measuring the relationship between library usage and academic performance. The link between performance and library usage is one of the priorities of the study. The current study is looking into the perceived personal performance of all academic library users, but the researcher does not use GPA as a measure of judging users' personal performance within this study.

The other main similarities with my study and the literature are the study variables used. The use of age, gender and satisfaction of library users is an area which will be covered within the study by the use of questionnaires and interviews. Also covered will be the cross analysis of factors such as gender and time spent in

the library, which enhances the background of the Kuwait academic library usage and profile.

Rehman and Mohammad (2001) investigate Kuwait University students and their information literacy skills. The study used KU as the primary location for questionnaire participants, specifically the science library branch of KU. This study demonstrated that freshman and sophomore students in Kuwait have low levels of information literacy skills, which is something the current study aimed to prove, as training is substandard in most academic libraries in Kuwait. However the 2001 study is out-dated regarding the technology involved so the current study aims to provide a current review of technology in Kuwait.

Academics within Kuwait are included in the current study, and as prior studies are out-dated, the current study aimed to describe how academics use the library. Al-Ansari (2006) describes academics' computer usage for research, teaching and general Internet usage. He also explained that library training regarding computer use is dysfunctional as most academics self-teach, which is a theory the researcher aimed to support. Electronic resources were also mentioned as was the recommendation that quality resources should be added to the collection frequently, which is also an area which the current research approves and supports in the study.

Rehman and Ramzy (2004) investigate the use of electronic resources by academics in Kuwait Universities. The study showed low levels of electronic resource use, as many academics had no understanding of how to use them or time constraints prevented them from using them correctly. The current study explains the current situation regarding electronic resources, and describes how academics perceive the electronic collection.

Watson (2001) states the importance of universities having a suitable academic library. This is a theory the researcher approves and aims to show the same support for academic libraries within Kuwait. Watson used each academic student year within his research, which is a trait the current research follows. Using each academic year highlights trends and patterns which occur in student perceptions of academic library services as they progress through university.

Another similarity is the users of the library, with many studies focusing on students and academics. Students are the primary focus of many studies, as they offer the largest demographic of library users. Moreover, showing students' improvements in performance is the focus of many studies to demonstrate the value of academic libraries. An addition to the current study was to include administrators in the current study, which is a first for this area of study in the Gulf States.

However there are limitations within the literature reviews, therefore the current study aims to offer a more comprehensive study into library usage and perceived personal performance. Previous studies (Hiscock 1986; Whitmire 2001) focus on GPA as a measure of academic performance, but this is not always a fair measure due to study resources within most households in Kuwait at present. Higher GPA is not a direct reflection on the quality of library services and this is what the current study will try to show. Previous studies have suggested that new methods of library evaluation should be adopted, as traditional methods do not give a complete and full understanding of library issues as they only use quantitative methods.

Quantitative methods use statistics regarding the number of books borrowed, and GPA differences (De Jager 2002). De Jager states that some students who borrow no books can still achieve top grades, and that students who borrow no books can fail. The researcher agreed with these statements, as reading a book does not mean you absorb the information, therefore the current study does not use books borrowed as a criteria to measure student performance. Statistics will not be relied upon when collecting data but are used to support the questionnaire results. One of the research gaps of the literature (section 1.3) was the fact GPA does not offer any user perceptions of library services, and what users deem to be useful services in improving their personal performance in using the library. As this study was completed in Kuwait, this is the first study of its kind which is offering a rich and full explanation of perceptions in Kuwait university libraries.

According to literature based on academic libraries in Kuwait, it was apparent that almost all research based in Kuwait is out-dated due to the rapid changes in technology. The researcher also understood the need for changes in academic library evaluation, which led to the idea of a perception based study in Kuwait. The FALU model was devised for use in academic libraries; the FALU model was based on

several models, such as one devised by (Markless and Streatfield, 2001). The model is used to pinpoint areas of library services which require improvement according to user perceptions. King and Boyce (2003) suggest several areas of library evaluation which are included in the FALU model. The factors of library use are one of the key principles behind the FALU model, which is one area of the author's model which FALU has incorporated. Using organisational and user outcomes provides users and library managers different ways to gauge the library's performance; one is financial and efficiency based while the other is based on satisfaction and is qualitative.

2.10 Summary

Chapter two contained the review of the relevant professional literature that formed the foundation for this study. Major issues relevant to this study were described; library evaluation study is a concept which is attracting increasing attention in the literature. Many authors of library information science articles argued that library evaluation has been used by librarians as a tool to determine the quality of their library services for several decades. Studies in this field, such as Lancaster's (1977) examination of a variety of studies to evaluate the different services provided by libraries, may be considered as milestones in the history of library evaluation. The literature review outlines chronologically the previous studies conducted on university library evaluation, as a background to the history of library evaluation.

In examining some related studies, the literature review has identified several factors that may affect user's perceived personal performance. These factors are outlined below.

A: Collection: Library collections can be more effective if they offer information related to users' needs. Most university libraries attempt to provide varied collections to support their teaching and research programs. An increasing amount of information is becoming available in both electronic and paper resource form.

B: Library teaching and training: Information literacy aims to help university library users find their resources or develop their library practices, such as information searching on websites and in electronic databases. Information literacy consists of a set of abilities that require individuals to recognise when information is

needed and then to have the ability to locate the necessary information and to evaluate it and use it effectively.

C: Library and information technology: University libraries have recently witnessed significant expansion in terms of IT services provided to users. IT services have become one of the more important functions of the library, in that students, academics and administrators no longer fully benefit from library services without using IT.

The last section of the literature review demonstrated several models of impact measuring. Most managers of university library evaluation chose evaluation models because these could assist the library with more detailed understanding of the relationships between the services provided and the outputs and outcomes achieved. This section described some important standards for measuring university libraries that have been developed, including measures for assessing the changes brought about by new services (Hernon, 2002; Poll, 2006; Weiner, 2005). These standards provide guidance for the best library performance measurements to be used and on the ways data can be collected. Having identified the key trends underlying the study in the literature review, the next chapter introduces the theoretical framework.

Chapter 3: Theoretical Framework

3.1 Introduction

Development of a theoretical framework for research is important because it guides the research and determines what will be measured and how they relate to each other. This chapter explains how a theoretical framework, called the *Factors of Academic Library Usage* (FALU), was developed for this study, based on ideas presented in the literature review. The FALU model was developed to investigate the effect of several factors related to the library on the achievement of the educational objectives of the university. The FALU model works in conjunction with developed statistical methods to define the effect independent variables have in relation to user outcomes.

The broad research aim of this study is to explore the correlation between university library usage and educational performance. This correlation has been examined many times in prior research however few studies have focused on user perceptions. This study has several objectives:

- To describe the nature of academic library usage factors particularly with regards to students, academics and administrators. This objective aims to find out exactly how library users use the library services and which areas of the library are not used to their full potential or capacity.

- To determine the library satisfaction of students, academics and administrators, using questionnaires and interviews.

- To assess the needs of library users for better training, collections and IT. This includes finding out which areas library users deem important, therefore requiring the most attention from library administration to improve user perceptions of the library services. Investment could be improved if one area was thought to be substandard compared to the others.

- To identify the needs of the university library in developing programs to improve academic performance of students. Develop programs to promote information literacy.

- To offer recommendations on how university libraries in Kuwait and elsewhere might be more effective in supporting library services. This study's findings will be analysed to find the key improvements that library users suggest during questionnaires and interviews. Future studies can be based on any topics or areas in the current study that are not fully covered.

- To examine the objectives of the university and the academic library. This study will compare the objectives of the university with the support offered by the academic library. For an academic library to be successful, their objectives must be aligned with those of the university.

3.2   The Theoretical Model

Based on the literature review, the researcher devised a model of library analysis which uses an alternative approach to library evaluation. After studying earlier models of academic library analysis, the researcher deemed some areas in the models weak, which allowed the researcher the opportunity to design a new model. The areas of library usage are a key part of the model, as they give the researcher a clear picture of exactly how users of the library use it. The model uses complementary aspects of prior studies to create a perception based model of academic library analysis. As the model takes into consideration three library user groups; students, academics and administrators, the model includes various outcomes for each of the user groups. The model is designed to give a picture of the current climate and perceptions of the library, however due to changing users each year, the long term effects of the library cannot be collected through the use of this model. The model can give administrators and management a clear picture of how the academic library is used in their institute, so changes can be made.

The FALU model offers library administrators an insight into the value of their academic library, in discovering if users consider the library to improve their perceived personal performance (PPP). PPP is governed by questions about how the

library facilities help users in their tasks within the library. PPP is a way to understand the goal of each of the library users, which varies depending on their position within the university. The outcomes of model are used to answer questions about the library, such as who uses the library, why and when, and what they think about the service. The solution may be implementing changes, or investing in physical improvements. The opposite side of who *is* using the library is who is *not* using the library, and why? This is harder to gauge as they cannot express their feelings through questionnaires unless they are carried out online using the library website.

Much remains to be learned and understood from research on educational performance. As the FALU model and PPP are new terms defined by the researcher, previous literature cannot define the meaning or usage of the terms. In addition, none of the works explicitly defines or theorizes the form of relationship between PPP and the FALU model. As a result, to evaluate FALU using quantitative methods, one needs to begin by formally defining FALU before moving on to further investigation using the FALU model.

In designing the model, it is vital that the outcomes of the model are defined and completely understood. The idea of efficiency and effectiveness can become confusing if the outcomes are not correctly defined. There needs to be a measure for how effective the model has performed, in order to refine the model for future usage. Without definite outcomes the model is redundant, so it is important to focus on the impact the model will have, rather than carrying out tasks without reason. Markless and Streatfield (2006) suggest that many people forget to focus on the impact, and tend to have 'tick off when done' indicators in order to complete their model. Researchers find it difficult to think about the aims and objectives underlying the study, but this is necessary as this tells them if they have achieved what they are trying to do.

Figure 3.1 gives a full description of the steps undertaken in producing and implementing the FALU model. Any improvements required after the study is undertaken will result in a refined version of the FALU model, targeting the specifics which may be absent from the original model.
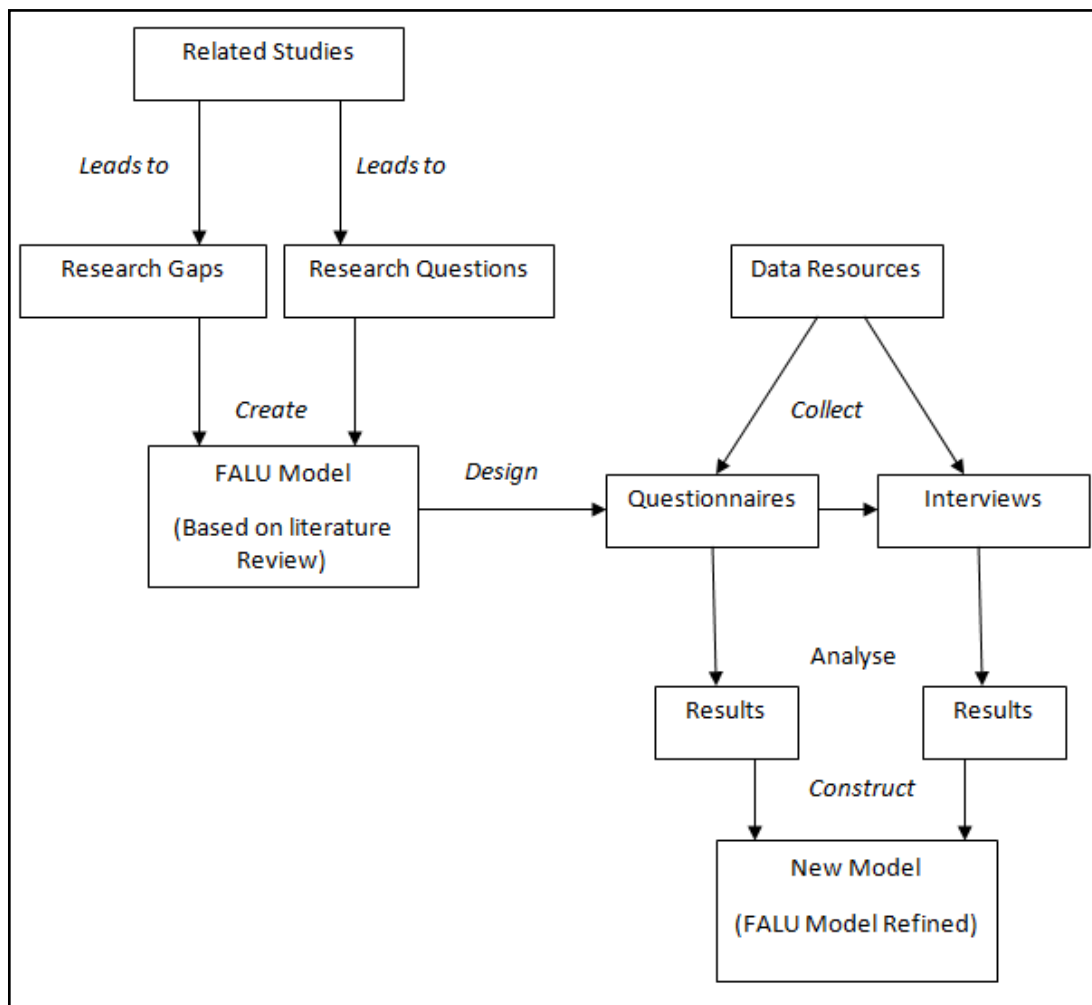
Figure 3.1 Implementation of FALU model(s)

The study was initiated by conceptualising and theorising the FALU model. The operation for this model is gauging user perceptions and satisfaction regarding the academic library. Figure 3.2 shows the basic components of the FALU model. Students are conceptualised as a transitional component entering the university at some point in time, and leaving it at another point in time. The other components are relatively stable components, and monitor the library over a longer period.
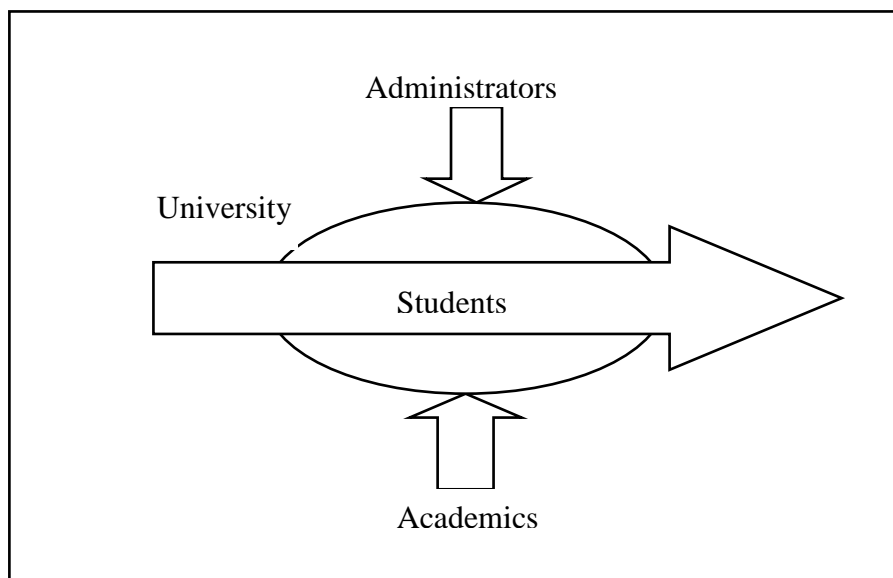
Figure 3.2. The basic components of library user perception process

The implications of the conceptualisation of the perception process are numerous, but most importantly is the interaction between the three components of this process - the students, academics and administrators. It is this interaction that determines the perception of educational performance in a university, and therefore determines to what extent a university has succeeded in achievement of a high level of educational performance.

It is assumed that a top priority and a main objective of any university is to deliver quality educational performance. This objective is articulated in the mission statements of almost all academic universities around the world, and is especially true of universities in Kuwait, since they serve mostly undergraduate students and offer mostly undergraduate programs. The graduate programs in Kuwaiti universities are limited in a number of ways, including the limited number of enrolments and number of degrees offered. Most importantly they almost exclusively offer Masters Degrees, with few Ph.D. degrees offered. It is assumed that the impacts of library use are most faithfully reflected in the educational outcomes and grades which students achieve whilst attending the university.

In the light of the preceding paragraphs the researcher can now more formally describe the FALU model. Figure 3.3 describes the FALU model as a system, with inputs being factors related to library use, and outputs being measures related to library activities. The activities and decisions made by the different components

of the university are what define the process of this system. Changes were made to the FALU model after it had been used within the study as weak areas became apparent. These changes will be described in chapter eight.
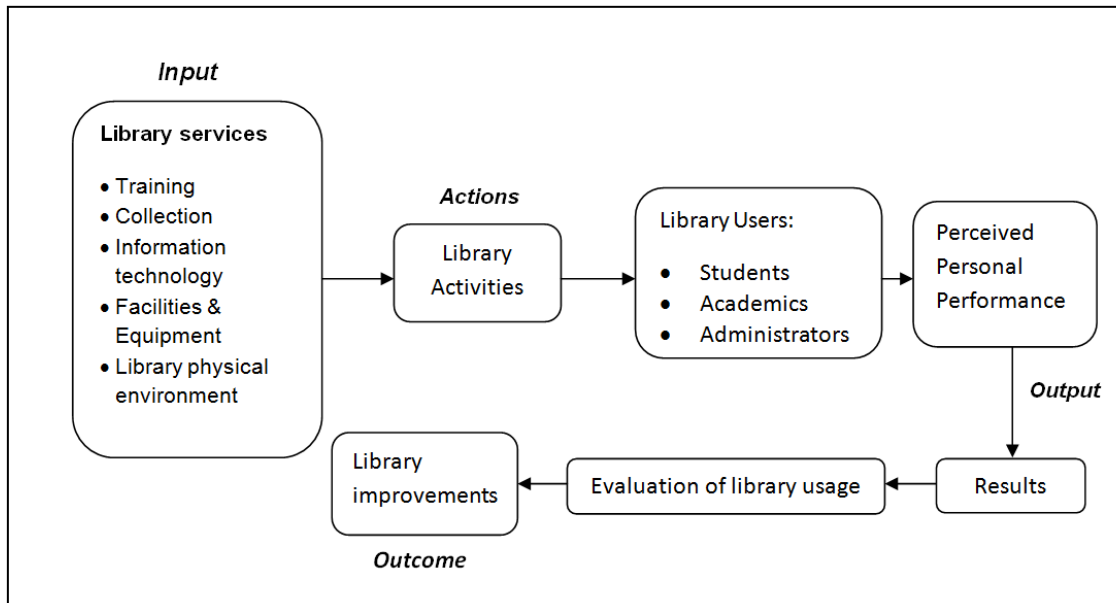
Figure 3.3. The FALU model as a system with input, output, and process

Further to Figure 3.3, the FALU model defines the terms in use throughout the study, which are:

- library services - the inputs of the model are library services in their various forms. The five factors listed have the biggest influence on user perception according to previous literature and research

- library activities - how users use services provided within the library, the time spent within the facility and the purpose of visits by users

- library users - the three main groups, which are the focus of the study. These groups will be the target groups for all investigative work into library user perceptions

- perceived personal performance - the factors which library users believe influence their learning, study behaviours and performance. PPP can also improve the students training, studies and ability to establish the goals of different educational ways. Also being able to access their account from home. The criteria on which performance is

based are personal outcomes as a result of using the library, such as higher grades and higher quality materials for class.

- results - the perceptions of users towards libraries are measured on a scale resulting in either a positive or negative outcome, although users can be entirely neutral with their opinions of the academic library. Qualitative interviews extract specific information lacking in questionnaire results

- evaluation of library usage - using the results collected from interviews and questionnaires, an evaluation process can find which areas of the library are useful and which are ineffective.

Using the FALU model, one can now speculate on the kind of relationships expected from the analysis. Firstly, the FALU model PPP variables are presumed to be influenced by library services factors such as library training, collection, information technology, facilities, equipment and library's physical environment. For example, the researcher expected to find positive association between FALU PPP variables and the level of services provided. Secondly, the researcher expected that FALU would vary across different collection categories. For example, electronic resources were expected to be associated more with academics than with the other two groups in this study, because the percentage of use of electronic resources by academics from different faculties has seen significant increase over the years (King & Montgomery, 2002; Lenares, 1999).

Prior studies (Burke et al., 2008; McMullen, 2008) have shown the importance of facilities and equipment to the users of university library services: the higher the quality of facilities and equipment, the higher the benefit to users. Therefore it was expected that FALU would have a positive relationship with the quality of facilities and equipment. Because library facilities and equipment directly reflect the library environment, it was also expected that the physical environment would have a positive association with FALU.

3.3 Model Terminology

The terms used within the model will be explained in terms of this study. The terms will be used throughout the model so defining their exact meaning is vital from the start.

Perception – the thoughts and general attitude a library user has towards an area of services.

Input – the resources and services provided to the academic library users. The five inputs are the key areas of library use, and they govern people's perception. The inputs are:

- Collection

- Training

- Information technology

- Library's physical environment

- Facilities and equipment

Output – a possible change to PPP due to library services implemented by library administrators. Areas of concern are highlighted by using user perceptions to indicate any dissatisfaction with specific library areas.

Library activities – what library users do with the services provided. How successfully users carry out these tasks depends on training provided.

Evaluation of library usage – the use of questionnaires and interview analysis strategies, such as likert scales and general opinions from interviews.

3.4 Measuring the Input and Output Variables

The previous section described the FALU model as a system with input and output variables. Since a regression model was used to underlie the structure of these two sets of variables, the input variables are the independent variables of the regression model while the output variables are the dependent variables. The independent variables are the variables related to library services, which are referred to as library factors, or factors. These factors can be divided into internal and

external factors. The purpose of this section is to identify measures that faithfully represent the input and output variables.

The study started with the input variables, and derives three or four questions, or measures, for each of the five factors of library use. These factors and their measures are listed in Table 3.1. In total, there are 18 measures covering the five factors that influence the output of the model.

The factors and their measures in Table 3.1 cover the most important aspects of the library use that relate to the fundamental role of a university - namely, teaching and research. These factors were extensively reviewed in previous chapters, particularly in the literature review, and thus they will not be discussed any further in this chapter. The actual conversion of these measures into statements is included in the next chapter. The 18 measures are also based on the researcher's personal experiences in academic libraries, and relate to what areas of libraries govern the researcher's opinions and perceptions.

Table 3.1

Measure of factors impacting library use

No.	Measures
	IT Services
1.	Quality and speed of IT devices
2.	Friendliness and accessibility of online search on-campus and off-campus
3.	Ease of use and extent of information on library web page
4.	Support of IT help desk to users
	Collection
5.	Availability of references and resources, both print and e-material
6.	Volume of references and resources
7.	Availability and adequacy of library subscriptions
8.	Library collection up-to-date
	Facilities and Equipment
9.	Coverage of facilities to all basic study needs of library users
10.	Accessibility and satisfaction of photocopying and printing services
11.	High quality multimedia and presentation rooms
12.	Accessibility and suitability of study facilities
	Training
13.	Education about library facilities and services
14.	Qualifications of library staff
15.	User information literacy skills
	Library's physical environment

16.   Quietness and comfort of library environment
17.   Sufficiency and suitability of library opening days and hours
18.   Comfort of library furniture

Note. Factors are shown in boldface

Library users generally have expectations of certain services, and these 18 measures cover these expectations. Library users will quickly realise if the facility they are using does not meet their basic expectations, and therefore have an extremely low perception of this library. Perceptions and satisfaction are closely linked, and instead of trying to find an absolute response for satisfaction, using expectation and library experience is deemed the best way to find satisfaction levels (Brophy, 2006).

3.5   Review of the Multiple Regression Model

Multiple regression is used to enable the researcher to understand why the value of dependent variables change due to the value of one of the independent variables changing, whilst the other values stay fixed. It is used to analyse which of the independent variables relate to the dependent variable. In this study multiple regression was used to see how much of an impact each of the library services have on user perceptions. This method is used as a predictor to possible outcomes, based on several independent variables, for example the student perception of library training, based on their *Gender*, *Faculty* and *Age*. The independent variables are the five main service groups, which are divided into 18 separate categories in which the library services affect user perception. The dependent variables are the three user groups of the library - students, academics and administrators.

The regression equation takes the form $Y = b_1*x_1 + \ldots + b_k*x_k + c + e$, where Y is the value of the dependent variable. The b(s) are the regression coefficients for the corresponding x (independent) terms with c a constant called the intercept. The e is the error term reflecting failure of the independent variables to perfectly predict the dependent variable. The regression coefficients, the b(s), are unknown constants, whose values are to be estimated from the data collected on the dependent and independent variables. The estimated b-values are denoted by b^s. When substituted for the b(s) in the regression equation above, we obtain a predicted value Y^ for the dependent variable. That is, $Y^\wedge = b_1^\wedge *x_1 + \ldots + b_k^{\wedge}*x_k + c$. Notice there is no error

term here, since this equation represents the predicted values Y^ of the dependent variable and not the true values of Y.

This study can predict the value of Y for any particular combination of values of x_1, x_2 … x_p by inputting those values of x_1, x_2, …, x_p into the regression equation and seeing what we get for Y^. Of course, the actual Y value wouldn't be exactly equal to our prediction, because there's some amount of variability. The prediction is the single-number best guess for a Y value at those particular values of x_1, x_2, …, x_p .

3.5.1 Multiple Regression Coefficients

Multiple regression coefficients are to be calculated using the computer software package SPSS. The calculations for multiple regressions are extremely complicated, as they predict an unknown element of an equation. Linear regression can be used to fit a predictive model, which makes it a vital tool within the current study.

3.5.2 Interpretation of the Coefficients

The regression coefficients, the b(s), are the average amount the dependent variable increases when the corresponding independent variable increases one unit and other independent variables are held constant. Put another way, the b coefficient is the slope of the regression line: the larger the b, the steeper the slope and the more the dependent changes for each unit change in the independent.

The b coefficients may be conceived as the 'potential influence' of the independent variables on the dependent variable. The idea is that the higher the b, the more y will change for each unit increase in x.

3.5.3 The Coefficient of Multiple Determinations, R2

The term R2 is the percent of the variance in the dependent variable explained uniquely or jointly by the independent variables. R-squared can also be interpreted as the proportionate reduction in error in estimating the dependent when knowing the independents. In other words, R^2 is a measure of the precision in predicting Y values, when the x values are known, from the regression equation.

3.6   Qualitative Structure

Due to the topic of the study regarding user perceptions, a qualitative approach is necessary for users to describe in full detail their opinions of library services. The use of qualitative in combination with quantitative allows questions to be built upon, with quantitative results being targeted during the interview phase of the research. Due to the topic being relatively unexplored within Kuwait, and this study being the first in Kuwait to focus on perception, the use of qualitative results aimed to give a better understanding. Strauss and Corbin (1990) support the idea that qualitative methods are best deployed when a topic is unexplored and with little information available regarding it. Interviews were analysed using content analysis, which connects any themes and trends which occurred in the questions. Qualitative results with quantitative give a complete description of satisfaction within the library, and due to the size of the sample these results are reliable. All the interview questions were designed to relate directly to the research aim and objectives, as well as the research questions. The following table 3.2 gives a representation of the reason for each interview question, and what it aims to achieve:

Table 3.2

Interview questions subject of focus

Research aim/objectives	*Related interview question(s)*
Describe the trends of academic library usage	• What type(s) of information resources would be most useful for your assignments and research? And why? • Which services in your library do you use more than others, and why?
Determine the library satisfaction of students, academics and university administrators	• Do you think that you could complete you degree without making use of any library services? • What is your opinion about the services of your library? • Are you satisfied with the IT services at your library?
Assess the needs of university library users for better training, collections and IT	• How satisfied you are with your library's training in information literacy? • How well do the library's collections help you in your study needs? • Are you satisfied with the IT services at your library?
Identify the needs of the university library in developing programs to improve academic performance of students	• Which services in your library do you use more than others, and why? • Are you satisfied with the IT services at

	your library?
offer recommendations for how university libraries in Kuwait could become more effective in supporting library services	• All questions
to examine the objectives of both the university and the academic library	• How well you feel that your university library achieves your university's objectives and goals?
Research Questions	*Related interview question*
Is there a relationship between academic library usage and perceived personal performance? If so, what is the relationship?	• Do you think that you could complete you degree without making use of any library services? • Do you feel that the library has an impact on your overall academic performance regarding your grades? • Do you think the library has an impact on your teaching; does it improve the quality of your lectures? • Is a relationship between your library and the quality of higher education produced at your university?
What are the perceptions of academic library users towards library services in Kuwait? • Which library services are significant to users? • Which library services require improvement?	• What is your opinion about the services of your library? • Which services in your library do you use more than others, and why? • Are you satisfied with the IT services at your library? • How well do the library's collections help you in your study needs? • How satisfied you are with your library's training in information literacy? • How do you find the environment of your library? • As you are an academic, what is your opinion about the services of your library?

Other interview questions not mentioned within the table aim to add to the information regarding academic libraries in Kuwait, such as library communications and the idea of library staff working closely with academics.

3.7 Summary

This chapter presented the development of the theoretical model, called the Factors of Academic Library Usage (FALU), and explored the relationships between FALU and several external and internal factors related to the use of university libraries. This chapter presented multiple regression as a statistical technique which includes multiple regression coefficients, interpretation of the coefficients and the coefficients of the multiple determinations. Qualitative structure is described within

this chapter, explaining how and why it had been used in this study. The next chapter will address the research methodology that describes the process of quantitative and qualitative methods within this study.

Chapter 4: Research Methodology

4.1 Introduction

This study examined the relationship between academic library usage and user improvements in PPP. The study made use of user perceptions as the primary method of collecting results, which were then analysed using a quantitative approach. Since university libraries affect students, academics, and administrators differently, the impact of the library on each of these three groups is studied separately. Therefore, the researcher has developed separate questionnaires for each group. The questionnaires were originally written in English and translated into Arabic to overcome the language barrier for participants whose English was not sufficient to communicate their ideas and responses. In this chapter we will describe some methodological issues related to questionnaire development, sampling design and data collection. This chapter also describes the pilot study, ethical considerations and problems found in administering the questionnaires.

4.2 Research Questions

This study derived three research questions based on areas of library usage which are relatively under-investigated. The initial question is the source of further research questions, therefore all research questions relate to question one.

1. Is there a relationship between the factors of academic library usage and perceived personal performance? If so, what is the relationship?

   The theory of library usage improving academic grades of students has been suggested for several years, but previous studies are based on GPA. This does not always give a clear picture, as these results can be manipulated to suit various outcomes. Investigating users' perceptions will find if library users personally feel an improvement in their development due to using the academic library. Question 2 is divided into parts a and b, which are based on user perceptions of library services in Kuwait.

2. What are the perceptions of academic library users towards library services in Kuwait?

a) Which library services are significant to users?

Examining user perceptions of the academic library gives the researcher a better understanding of which services are performing well, and which are not. This can lead to the production of refined models for future studies into library use. This question is aimed at producing an overview of how academic universities in Kuwait function.

b) Which library services require improvement?

This question aims to discover the services which Kuwait university libraries are providing, but are considered substandard by library users. Understanding which services require improvements is vital to improve the perceptions of library users. Kuwait libraries are continually invested in; therefore listening to the thoughts of users will enable investment to be allocated to the correct service.

4.3 The Development of the Questionnaires

Questionnaires are a typical research tool used to measure the quality of library services. They are popular due to their simplicity, and they can be completed without being overly time consuming. As mentioned, three questionnaires were developed in this study, one for each of the three groups: students, academics, and administrators. Despite this, it is emphasized that the three questionnaires were not completely separate. They shared a common part related to the assessment of library use of resources and services.

The objectives of these three separate surveys are:

1. to allow the performance of university libraries in Kuwait to be measured and monitored over time

2. to recognise and manage the key issues affecting students, academics and administrators

3. to compare the results of questionnaires with other studies of perceived personal performance evaluation of university libraries.

The common part of all three questionnaires included factors affecting library use of resources and services. Five factors were derived from the literature review: *Training, Collection, Information Technology, Facilities, Equipment* and *Library's*

Physical Environment. Having identified factors impacting library use, the next step involved deriving rating measures for these factors. The purpose of the measures is to highlight and substantiate the factors to establish the domain of impacts defined by each factor. Between three and four measures were derived for each factor, totalling 18 measures for the five factors. The factors and their measures were described in detail in chapter three and summarised in Table 3.1.

The questionnaires were used for two reasons within this study. The first was to build on prior studies in the area of academic library user perceptions, as this will test the FALU model for suitability. The second reason was to apply the FALU model to a specific situation/location, which are Kuwaiti academic libraries.

The questionnaires were specifically designed after studying the literature discussed in the literature review. The gaps in research presented questions which would be useful in understanding academic library usage. Designing a questionnaire requires a scale to judge user responses. In this study the Likert scale was chosen for its ease and affordability. The Likert scale uses a five point scale from positive to negative, which gives a good indication of each participant's general happiness with library services. The questionnaires were divided into three sections for the three user groups to complete.

Each of the three questionnaires consists of three sections:

1. The first section asked demographic questions, which seek information related to respondents' academic and personal status, including university, faculty, course/year level, gender and age. This section was common to all three questionnaires with minor changes reflecting academic status differences among students, academics, and administrators.

2. The second section describes the measures of the five factors impacting on library use as described in the previous chapter and listed in Table 3.1. There are a total of 18 questions in this section covering the five factors impacting on library use. This section is common to all the three questionnaires since they all address the same topic, which is assessing library use.

3. The third section asks questions about the role and impact of library use on students, academics, and administrators in achieving university objectives. The three groups have different involvement in achieving university objectives (Kuwait University Library Guidebook, 2006) and as a result, this section differs on the three questionnaires. The purpose of this section is to construct a scale that reflects the role of each group of respondents in achieving the university objectives and goals. Ten questions were used to construct the scale in each of the three questionnaires, although the same measurement scale was not used for the three groups. The questions were carefully selected to achieve maximum internal consistency between the questions. This is an important step to ensure a reliable scale for analysis.

The three questionnaires are listed in Appendices as A, B, and C.

4.3.1 Reliability

This study used questionnaires as a tool to gauge user opinions towards university libraries and how they use them. The results of the questionnaires were analysed and used as evidence of support or against the academic libraries.

Questionnaires must be reliable. 'A good reliability is one that is as good or better than the reliability of competing measures' (Ary, Jacobs, Razavieh & Sorensen, 2006). The main aim for the study was to achieve reliable results from the questionnaires, so if for some reason good reliability was not achieved, and then an investigation into why this had occurred would be carried out. Without reliability, questionnaire results are almost useless, as they could be manipulated to suit a particular purpose. Therefore consistent results in questionnaires are regarded as high reliability findings, when used correctly.

The questionnaires were analysed using the internal consistency method, which makes use of Cronbach's alpha. The overall reliability of the questionnaires is gauged using this alpha, with the maximum score being one for most reliable. Reliability can only be estimated, not measured. The study's aim is to be as close to one as possible, so the questionnaire had to be carefully written to make sure participants had a full understanding of the question they were answering.

4.3.2 Validity

The validity of this study can be examined in several different ways. The most basic way is to examine the questionnaires on face value, to see if the questions achieved the required answers - which were checked by a third party to prevent bias. Statistical validity was carried out on the questionnaire results, which gave an indication as to how credible a conclusion can be made based on the results. External validity could be applied in this study, such as other countries using this questionnaire in their academic libraries to gauge if the library is a positive influence or not. Keeping the questions generic and non-location specific was important for external validity.

The questionnaire was field tested before the sampling design was selected and implemented. To check the validity of the study, the questionnaires were submitted to university staff with experience in library evaluation. Being in Arabic, Kuwait university staff could read the exact document the users would receive (Appendix E).

4.4   The Development of the Interview

The second phase of the research was open ended interviews conducted with students, academics and administrators of Kuwait University (KU) Libraries, Gulf University for science and technology (GUST) Libraries and American University of Kuwait (AUK) Libraries. The purpose of these interviews was to further explain the questionnaire results and to provide insights into the user impact evaluation of academic library usage in Kuwait. It has been claimed that approximately 90% of all social science investigations use interview data (Holstien & Gubrium, 1995). The interview is useful because it allows the researcher to focus the debate directly on the research questions of immediate interest. Few other research techniques offer the opportunity to customise the material and focus on specific questions (Swann, 2006).

Interviews provide rich data, offer the opportunity to establish rapport with the interviewees, and help to explore and understand complex issues. Ideas that are ordinarily difficult to articulate can be uncovered and discussed during such interviews.

In this study, the purpose of interviews was to try to recognise primary concepts and variables of which the interviewees themselves may not be aware. In

addition, using the questionnaire during the interview helped the interviewee to reduce mistakes, keep misunderstandings to a minimum and find missing data. Interviewed students, academics and administrators were able to explain and describe more about what they feel and think is happening at the university Libraries in Kuwait.

To form proper research questions, adequate reading and a comprehensive literature review is required. Important relationships between ideas need to be established and these relationships need to be developed as the questions progress. As the main part of the proposed research is based on empirical data, as the questionnaire is quantitative, it needs to be balanced by qualitative research in the form of observations and interviews.

Permission to conduct interviews was obtained through a preliminary hardcopy letter to the directors of KU Library, GUST Library and AUK Library. Also, the researcher held a meeting with each of the three research groups shortly after arrival in Kuwait. The researcher had access and permission to enter and operate within Kuwait university libraries, as he is a member of the academic staff at Public Authority for Applied Education and Training PAAET. Written authorisation for the specific task of perceived personal performance evaluation was obtained for the purpose of ethical clearance.

Content analysis was used to examine the transcripts of the interviews. Content analysis, which is the process of identifying, coding and categorising the primary patterns in the data, is potentially one of the most important research techniques in the social sciences. This type of analysis allows the themes to emerge from the raw data (Krippendorff, 2004; Patton, 1990).

Each interview session lasted approximately one hour. Dick (1998) suggests that in convergent interviewing an opening question be asked and the interviewee be kept talking for 30 minutes to one hour. All the interviews were audio-recorded using a digital *iPod* recorder. The calls were made using the free digital calls program *Skype.* Reliability of analysis was achieved by keeping recordings of the interviews (Mays & Pope, 1996). The interviews were on three subjects of open-ended questions related to the research questions:

1. The students' interview consisted of five questions, focussing on university library use and the impact it has on their perceived personal performance.

2. The academics' interview consisted of six questions, focussing on academic response to the library and services regarding their perceived personal performance.

3. The administrators' interview consisted of five questions, focussing on administrator needs, library policy, library environment and future planning.

The first and second questions for each group were general questions, followed by related questions. The interviews were supported by the empirical data from the questionnaires. The interview questions were reviewed by Professor Yasser Abdul Motey, an academic in the Faculty of Library and Information Science at PAAET. The comprehensiveness and appropriateness of the interview questions was confirmed.

The objective of the interviews was to explore the key issues that emerged from the questionnaire pilot results. In addition, the interviews provided different information about university libraries in Kuwait, and in more depth than a questionnaire. Brog and Gell (1989) recommend that semi-structured interviews provide an attractive combination of objectivity and depth, and often permit the gathering of valuable data that could not be successfully obtained by any other approach. A small pilot study was performed with three participants; a student, an academic and an administrator. In general, the purpose of the pilot study was to pre-test the interview techniques and questionnaires.

The reason for employing the questionnaire as a tool to measure library performance was based on ideas presented by Cameron and Whetten (1983), who argue that in most organisational measures, it would be ideal if a scientific approach could be applied. It is usually easier to rely on quantitative, measurable and easily definable factors to determine effectiveness. By personally administering questionnaires to groups of individuals, the researcher can:

- establish rapport with the respondents while introducing the survey

- provide clarifications sought by respondents on the spot

- collect the questionnaires immediately after they are completed.

In that sense, there is a 100% response rate. One disadvantage of administering questionnaires personally is that it is expensive, especially if the sample is geographically dispersed. Personally administered questionnaires are best suited when data is collected from organisations located in close proximity to one another, and from groups of respondents that can be conveniently assembled (Cavana, Delahaye and Sekaran, 2001).

After the data was collected it was prepared for analysis. The data was stored in folders by type of user; which were students, academics and administrators. It was important to keep data safe and anonymous, as interviewees were told the interviews were private and confidential. Anonymous interviews allow users to openly express feelings without the concern of reprisal. The data was backed up after each interview to prevent data loss, which would be detrimental to the study.

4.4.1 Reliability and Validity

The interviews in this study were initially examined for reliability and validity using a pilot study. Pilot studies provide a good indicator of the responses you may receive for each question in the interview. They also highlight any poor questions if users fail to understand or provide answers which are unrelated. The reliability and validity is further enhanced by the amount of users interviewed. In total 42 users were interviewed overall, which is high in comparison to many studies using interviews. This enhances any findings and percentages gathered from interview data. The interview was produced in a non-location specific manner, as the libraries involved had several different locations and campuses. Moreover the interview could be used outside of Kuwait; therefore the interviews are generic in their questions regarding the user's library.

4.5 Assumptions

The assumptions derived in this study are realistic expectations which the researcher deemed out of his control. The assumptions in this study are:

- the sample population is representative of university libraries throughout Kuwait

- the three participant groups conveyed their honest opinion in questionnaire and interview questions

- the study population has enough understanding of the factors of library services including collection, facilities and equipment

- underlying the FALU model is the context of library assessment, which is the perceived personal performance process within a university. It was assumed that a top priority and main objective of any university is to improve the perceived personal performance of users. This objective is articulated in the mission statements of almost all academic universities around the world, and is especially true of universities in Kuwait, since they serve mostly undergraduate students with mostly undergraduate programs.

These assumptions were based on the researcher's experience in university library services.

4.6   Sampling Design and Data Collection

The questionnaires were undertaken by the main users of the academic library, which are the students, academics and administrators. The questionnaires were split into three sections; the first section being identical for the three groups, and the remaining two sections differing based on the user type. The questionnaires were verbally completed by volunteers from the three groups while face-to-face with the researcher. The questions were based on the following variables:

a) *IT Services:* IT services cover several areas of IT usage within the library. The quality and speed of computers is important for user perceptions of good IT services. Other areas of IT such as the programs and software installed on the computer will dictate if the computers are used frequently. The information given by the library webpage has to be informative and useful, and if needed, help should be available to users. Library webpage's should be easy to access on or off campus at any time.

b) Collection: The quality of the collection will change user perception depending on how useful the collection is with regards to their subject of study. Printed collection is only one part of the collection, as computers store many thousands of different e-books, e-journals and databases. The collection requires regular surveying in order to weed out unused or outdated material in order for the collection to be relevant to user studies. It is important to mention that the library catalogue has been clearly related to collection. However, recently it's more related to library IT as academic library uses it in its websites. For this reason, in this study, catalogue here refers to IT and not collection.

c) Facilities and equipment: The facilities and equipment are used by all users of the library, and the quality and how easy they are to access will change user's perceptions of the library. Photocopiers, printer/scanners and other digital equipment are vital in modern libraries and most also include meeting rooms and lecture theatres. The size and quality of workstations is important to students, as they are used for many hours, so comfort and personal space are paramount.

d) *Training:* Training is vital for user development and libraries are required to offer a variety of training courses. Students require training in information literacy in order to use the library correctly and efficiently, which improves the quality of work produced. The frequency of training courses offered will govern how people perceive the library training programs. Library staff are required to have a good knowledge of all aspects of library use in order to be helpful.

e) *Physical Environment:* The physical environment of a library can have a big impact on user moods and ability to study within the library. A poorly furnished library may have a low user perception. If one factor of the library's environment is uncomfortable or lacking, then users may find the library a poor place to study. The opening times of the library must suit all user groups of the library, as if not the perception will be negative.

4.6.1 Students

Students make up the majority of participants in this study and this section is concerned with student experiences during their academic life at university. Students are mainly undergraduates in this study, however some postgraduates are included. A large percentage of undergraduates are of the same age due to trends in Kuwait, as many students complete high school and enter university immediately. This trend is common throughout the three academic libraries included in the study, therefore this could lead to similar results with regards to students being similar ages and having similar perceptions. This situation is not common in western universities as age groups vary in undergraduates. The three universities included in the study are mixed gender, however females account for a larger percentage of students then males. This is a common trait of Arabian Gulf states.

Kuwait University library has eight branches which specialise in different studies. All eight were visited during the study to collect data from each library. This data was used to compare which studies have better facilities than others. Examining all eight branches allowed analysis of different disciplines. The other two university libraries have only one branch each, so student opinions are based on just one library.

4.6.2 Academics

Academics are the second group of users included in this study. The term academic is used to describe someone who is often referred to as a lecturer or professor. The academics working within Kuwait University are highly qualified in their field and are headhunted by KU because of results achieved within their bachelor/masters degree. Most have graduated from western universities, mainly the USA or UK. Therefore they have enough experience to evaluate an academic library and their feedback is highly valued within this study. The private universities do not have the financial power and influence to scout the world for academics, but do have qualified and well trained staff. Private universities within Kuwait have not been established for much longer than 10 years, so one advantage is that the libraries are relatively new.

Academics were chosen for this study due to their understanding of libraries and their experience within educational environments. Moreover they have little bias toward either positive or negative opinion, as they judge the library purely on an academic scale. If the library is poor, they will say so. This is the purpose of the questionnaires - to collect relevant and truthful responses from participants. The questionnaires were handed out face-to-face within academic offices, and the researcher attempted to include all faculties within the study at the three universities.

4.6.3 Administrators

The final group of library users with an opinion of the library are the administrators. It's argued that administrators' personal performance do not directly relate to students' and academics' performance, however in reality administrators are in a position of power with regards to library changes and improvements, and therefore it is their responsibility to improve the library when necessary. Administrators have not featured in many prior studies, so their opinions will be highly valued, and interesting to compare with those of academics. The opinions of the administrators may be slightly biased towards a positive library perception regardless of the actual library situation, but this will be an area of comparison between students and academics. This study includes administrators in the position of head of faculty, head of department and library administrators. The researcher visited administrators within their offices to distribute questionnaires, or handed copies to receptionists of administrators.

4.6.4 The Statistical Analysis of Quantitative Data

In this section, the statistical analysis procedure applied to survey data is outlined. The general purpose of statistical analysis was to gain insight into the main theme of the research, that is, the impact of library use on students, academics, and administrators. However, the detailed objectives of the statistical analysis depended on factors such as the models to be used, the hypotheses to be tested, the assumptions to be made, and so on.

Both descriptive and inferential statistics were used in this study. In order to describe the sample of the study, data related to demographic of the sample was first subjected to descriptive statistics. Inferential statistics, specifically multiple regression, were used to explore the perceived user impact of university libraries on

students, academics and administrators, particularly with regard to library services, staff performance, quality of information technology, facilities and equipment. Tabachnick and Fidell (2007) argue that multiple regression is a popular technique used in many disciplines to allow researchers to assess the relationship between one dependent variable and several independent variables. Consistent with previous studies that explore the impact of university library usage on personal performance (Jiao & Onwuegbuzie, 1997; Simmonds & Andaleeb, 2001; Whitmire, 2002) the current study will employ the multiple regression technique to investigate the data collected from the separate questionnaires developed for each of the three groups: students, academics, and administrators.

The variables were derived from the statements on the three questionnaires described earlier in this chapter. Recall that each of the three questionnaires included three sections, the first involved demographic statements, the second involved 18 library usage statements and the third involved ten statements on university educational outcomes.

During the questionnaire stage, several areas of interest were highlighted for further investigation, based on the literature review. All questionnaire data in the study was used in aggregate to prevent any negative impact being portrayed of any university involved. Library usage between genders was analysed in this study, due to the belief that female students spend less time in academic libraries than males. This was examined by using the collective questionnaire results to compare female responses regarding duration of visits against male responses. Library electronic resources are an area of interest in related studies, particularly who uses electronic resources frequently and who does not. Previous studies stated that academics were the most frequent users of electronic resources. This study questioned all user groups of the library to determine who was using resources, and from which faculty they were.

The 18 statements in the second section of the questionnaire covered the five factors impacting library usage. These statements are reproduced below in Table 4.1 for ease of reference. Similarly, the ten statements in the third section from all three questionnaires are shown in Table 4.2. Recall that while the second section was common to all three questionnaires, the third section included different statements

for the three questionnaires. Also, note that each question in Table 4.1 and Table 4.2 is given a short name to be used below to define our model variables.

Table 4.1

The Library Usage Statements Common to all Three Questionnaires

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IT Services

- The IT devices (software, internet, etc) that the library uses are of high quality and speed.
- The service of online search is friendly and can easily be accessed on-campus and off-campus.
- The library web page is friendly and includes all the information that I need to know about the services of the library.
- When I have a problem using any of the IT services, I find all the help I need from the library staff.

Collection

- The library provides all references and resources required.
- The library contains a large number of resources either as physical documents or e-material.
- The library is subscribed to major local and international journals and periodicals in my field.
- The library collection list is continuously updated to include new trends in research and learning material.

Facilities and Equipment

- The facilities and equipment (e.g. printers, photocopy machines, meeting rooms, etc.) provided by the library cover all the basic study needs of the library users.
- The photocopying and printing services are accessible and satisfactory.
- The furniture of the library including the desks, the chairs, and other supplies are fairly new and comfortable.
- The study facilities in the library including study rooms, meeting rooms, seminar rooms, etc. are accessible and suitable.

Training

- The library offers adequate learning opportunities to its users to learn about its facilities and services, e.g., via online courses, seminars, workshops, exhibitions, etc.
- The library staff are well qualified and they offer their expertise to library users whenever needed.
- The library provides training that improve users' skills

Library Physical Environment

- The library provides quiet and comfortable environment for studying.
- The library is open for sufficient days at suitable hours.
- There are suitable areas within the library for relaxing and taking a break.

Table 4.2

The Perceived Personal Performance (PPP) Statements on Students', Academics', and Administrators' Questionnaires

Students	Academics	Administrators
Academic training helps develop critical thinking and the ability to judge the worth and validity of literature (*st1*)	To gauge the opinion of library services, and if they meet academic standards. (*acad1*)	Collect opinions of administrator's thoughts on the overall satisfaction with library services. (***admin1***)
The library provides suitable training to improve student's educational skills e.g. assignment writing workshops. (***st2***)	The library collections change and improve based on the current curriculums being taught. (***acad2***)	Discover if administrators believe the academic library is helping to improve the educational performance of users. (***admin2***)
Library items provided by the library offer valuable information related to students studies.(***st3***)	The library provides quality resources for research and publishing. For example, databases and electronic resources. (***acad3***)	To gauge the opinion of the administrators with regards to the library's physical environment and if it's suitable for study.(***admin3***)
Relationship between library visits and grades. For example, measure library usage and educational performance of a student. (***st4***)	Gauge the academics value of the academic library. (***acad4***)	Technology and equipment in the library is suitable and modern, and regularly upgraded to suit users' needs. (***admin4***)
Teacher recommendations regarding library resources. Teachers advise students to locate information which helps with their studies. (***st5***)	Students should make use of the library for research on topics which will be covered in lectures. (***acad5***)	Find out if enough money is being invested into the university library based on administrator's knowledge of financial information. (***admin5***)
Assignments require library usage. Availability of different types of resources that are related to students subjects. (***st6***)	Library training improves the quality of lectures given by academics, and the quality of student assignments. (***acad6***)	Library goals which are set by administrators are met by the library regularly. (***admin6***)
The more time spent in the library is productive regarding the quality of student output. (***st7***)	Academics work output is increased by attending training workshops in the library e.g. PowerPoint workshops (***acad7***)	Student grades are improving due to library courses in plagiarism or academic writing training. (***admin7***)
Suitability of the library as a study environment, whether individually or as a group. (***st8***)	The library services are useful and suit the needs of the academics. (*acad8*)	Training provided in the library helps to increase administrators' work output e.g. Excel training (*admin8*)
Availability of facilities and equipment of the library. (Printers, photocopiers, scanners, computers etc) (***st9***)	The library databases are of use to academics for lecturing and research. (***acad9***)	The library is vital for the university to function as an academic institution. (***admin9***)

| Library environment and study. Ambience and business hours suits students' needs. (*st10*) | Faculty and library staff collaborate in improving the library experience for users, as well as personal improvement. (*acad10*) | To discover if administrators believe that library training is suitable. (*admin10*) |

Table 4.1 represents the statements which define each of the five independent variables. Table 4.2 lists the PPP statements for each of the three dependent variables. The statements are directly linked to questionnaire and interview questions, which are then linked to the researcher questions. The statements are limited to ten relevant statements. Generally, participants are reluctant to respond to questionnaires with too many statements, and they tend to become bored and less careful in their responses as they proceed. This will produce noisy data, or equivalently, less reliable data. Therefore it is important to include only those statements which are thought to add substantial amounts of information to the factors, keeping the total number of statements reasonably small.

The statements produced in table 4.2 have been based on previous studies relating to student and academics use of academic libraries. Administrators' statements were designed from conversations the researcher had with administrators prior to commencing the current research. Whitmire (2001) lists a variety of college experiences; with critical thinking (*st1*) ability being a primary skill which students must develop. Critical thinking is a skill which many universities aim to develop and encourage in students, and Kuwait universities understand the need for this skill. PPP is influenced through critical thinking as a student's ability of collect information can govern the effectiveness of their library usage, and therefore their grades. Whitmire's framework also suggests student and academic's maintain positive interactions which relates to statement (*st5*), which aimed to uncover if students had interactions with academics regarding the use of the library for resources. The study by Basefsky, (2000) suggests administrators should promote information literacy, therefore improving the academic performance of students (PPP). Therefore statements (*admin2* and *admin7*) relate to information literacy improving students' grades, and the opinions of administrators towards the libraries influence of PPP.

The research methodology used by Watson (2002) states the importance of a library environment regarding student performance within the academic library. The Library environment is an area of importance for the study and is one of the five independent variables. The Statements (*st8* and *st10*) aimed to discover the user perceptions regarding the comfort and suitability of the academic libraries. Statement (*st8*) refers to the suitability of the study areas provided by the academic library, for individual study and group study. Statement (*st10*) refers the general ambience or environment of the library, if it is a suitable atmosphere to study in. Watson states the importance of the facilities provided such as the quality of ICT and copy facilities which closely relates to statements (*st9* and ***admin4***). These statements aimed to discover the differences in perceptions between students and administrators regarding the equipment provided in the library.

PPP statements regarding academics varied from that of students as academics have different uses and perceptions of academic libraries to that of students. Jenkins (2005) states the importance of academics collaborating with library staff, for academics to improve information literacy skills, which can have an impact on the quality of materials provided for student lectures. Statement (***acad10***) aimed to discover the frequency of academics collaboration with librarians and to what extent librarians aid in academics research and study.

The statements provided in the current research are designed from a variety of factors, such as the researchers experience in the field and various researchers included in the literature. Overall all statements included in table 4.2 have literature directly influencing there usage in the current study, which were discussed in the literature review (chapter 2).

Table 4.3

The Definitions of Model Variables Using the Statements in Tables 4.1 and 4.2

Independent Variables	Statements
IT Services =	*serv1 + serv2 + serv3 + serv4*
Collection =	*col1 + col2 +col3+col4*
Facilities and Equipment =	*fac1 + fac2 + fac3 + fac4*
Training =	*tran1 + tran2*
Library's physical environment =	*env1 + env2 + env3*

Dependent Variables	Statements
Students =	*st1 + st2 + st3 + st4 + st5 +st6 + st7 + st8 + st9 + st10*
Academics =	*acad1 + acad2 + acad3 + acad4 + acad5 +acad6 + acad7+ acad8 + acad9 + acad10*
Administrators =	*admin1 + admin2 + admin3 + admin4 + admin5 +admin6+ admin7 + admin8 + admin9 + admin10*

The researcher also defined three dependent variables; students, academics, and administrators. These variables measure the performance outcomes of Kuwait universities on, respectively, students, academics, and administrators. Specifically, the role for these variables is to capture the outcomes of the university personal performance activities on the three groups of respondents in this study.

Before using the above variables, which are defined as sums of measures, it is necessary to check them for reliability to make sure that the derived scales consistently measure the underlying dimension. Therefore Table 4.4 is a classification for Cronbach's alpha values. Table 4.4 is used in the next section to interpret the results of the statistical analysis of the data. It is to be noted that the actual interpretation of the alpha values is subjective.

Table 4.4

Classification of Cronbach's Alpha Values

Value	Classification
alpha > .9	Excellent
alpha > .8	Good
alpha > .7	Acceptable
alpha > .6	Questionable
alpha > .5	Poor
alpha < .5	Unacceptable

Now this study has defined the model variables and checked their reliability, the researcher formally introduces the analysis model. The model used in this study to interpret the results of the analysis and to test the research questions is the well-known statistical technique known as multiple regression. This model involves one dependent variable and several independent variables. In this case there are three dependent variables, students, academics and administrators, so the researcher

applied the model three times, once for each dependent variable. Simply stated, in this model, each participant was represented by a point and the regression model found the best plane in the space of the points to closest fit the points. Algebraically, this means that the researcher allocated to each independent variable a value measuring the regression effect of the corresponding independent variable, where the value itself is known as the regression coefficient. In addition, a constant was also found, known as the intercept, which measures the overall mean for all the variables in the model.

It is to be emphasised that all the information about the correlations between the independent variables and the dependent variable are summarised in the regression coefficients. One objective of the regression analysis is to find tests of significance for the presence of the regression effects, estimate their values, and assess their roles in the model through various statistical techniques. Since the research questions of this study are about how the factors impacting library usage are related to the PPP variables, the answers to these research questions are tied in with the regression effects of the model. Hence, by examining these effects, the researcher gained much insight into the research questions.

The first thing to look at in the regression output is the value of R-Square and the standard errors of the estimates of the regression coefficients. These values are the main indicators of the quality of model fit to the data. R-square is the interpretation of percent of variation (or information) in the data that is explained by the model. On the other hand, the standard errors of the regression coefficients reflect the stability of the parameter estimates of the model. Last but not least, the researcher often looked at the ANOVA tables for assessing the breakdown of the total variation in the data with respect to systematic and random sources of variation.

A final note is in order about using the output of the regression model, and in fact the output of any statistical model. Before using any model and making inferences based on the model, one has to evaluate the model and check for evidence from the data to the validity of its assumptions. Various analytical and graphical techniques are available for this purpose. One of the most important assumptions about regression models is the assumption of uncorrelated error terms with zero means. This implies the absence of any systematic structure from the residuals, after

the model has been fitted to the data. The practical implication of this assumption is to ensure that inferences based on the model are not biased in any systematic way and that any differences in the observed values are due to chance alone. The easiest way to check this assumption is through plotting residuals against predicted values and looking for patterns in the points. When the model fits the data, the points in the plot are randomly scattered around a horizontal line at zero value of the residuals. Another assumption often checked is the assumption of constant error variance, which is also checked from the same plot. Finally, the normality assumption is checked when tests of significance or confidence intervals are involved.

4.6.5 Qualitative Analysis

The qualitative data taken from the interviews was analysed using content analysis, based on those steps introduced by Williamson and Bow (2002). The data was analysed using content analysis:

- The data collected within interviews was categorised to see how many positive and negatives occurred, and any words which occurred frequently, such as descriptions of temperature or services.

- The next phase was to examine patterns that occurred with frequently stated words, and how they were used. Deciding on the number of categories to use was completed after all the data was analysed, as several important words could be used frequently.

- Using the demographic questions, cross analysis was used to see if age or gender had an effect on the key points found earlier. For example, males may not like the seating in the library, or younger students may think the library is not modern and sleek enough.

Initially read through text data | Divide the text into sections of information | Devise codes for the segments of information | Reduce overlap and redundancy of codes | Reduce codes into themes

Numerous pages of text | Numerous segments of text | 30-40 codes | Codes reduced by half | Codes reduced to 5-6 themes
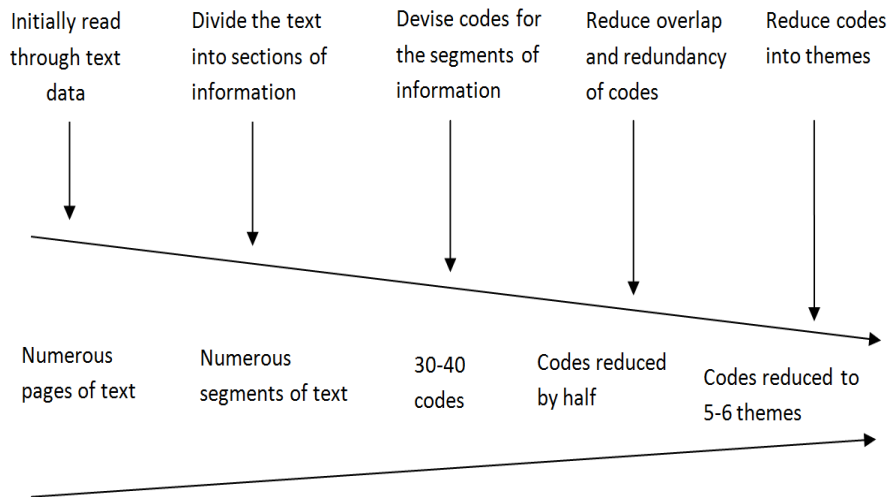
Figure 4.1Coding process for analysing qualitative data. Adapted from *"Educational research: planning, conducting and evaluating quantitative and qualitative research"*, by J. W. Creswell, 2008, Pearson: New Jersey, p. 251.

Table 4.5

Content analysis - themes and coding

Themes	1. Value of academic library to user	
Coding	*a. Users need for the academic library*	
Questions	Student response	
As a student do you think that you could complete your degree without making use of any library services?	*English:* I often need to use the library for a variety of reasons, so the thought of not having this service available would have a detrimental effect on my study. I feel there is a definite need for the library and I feel that I would not attend a university without an adequate library. I can't stress enough how vital the library is to myself and many of my study friends	
	Arabic: بالنسبه لي احتاج المكتبه لاسباب متعدده, من اهم هذه الاسباب الخدمات الموجوده في المكتبه والتي لها الاثر الفعال على تحصيلي العلمي. في الحقيقه انا اشعر بانه لا يمكن ان تستغني الجامعه عن المكتبه و خصوصا اذا كانت المكتبه تقدم خدمات جيده للطلبه. لا استطيع ان اجزم ما فيه الكفايه كم من الفائده التي أجنيها من المكتبة و كذالك العديد من اصدقائي الطلبة.	

As shown in Table 4.5 the content of each interview was analysed and conclusions were drawn from user statements. The themes and coding included in the analysis tables referred to the area of questioning and whether a positive or negative

response was expected. The coding was used to analyse responses, in a qualitative manner, to find themes and reoccurring ideas within interview data. Using the open ended interview technique allowed users to state anything they wanted to say within reason regarding the academic library.

4.7 Relationship between Questionnaire and Interview Methods

The study conducted quantitative questionnaires and qualitative interviews across all three participant groups, which were student, academics and administrators. This section attempts to find a relationship between these two research methods, to prove the relevance for the overall research question and the achievement of the study's aims and objectives. Eighteen questions in the first statement of the questionnaires outlined the user satisfaction concerning Library Collection, IL Training, Library's Physical Environment, Facilities and Equipment, and IT Services. The interviews started with two open ended questions that were similar for all three participant groups. Those general questions were asked to gain background information about the overall perception of library services.

The questionnaires aimed to collect quantitative information about usage preferences while the interviews asked for qualitative statements concerning the reasons for these usage preferences.

To cover all five independent variables, three related research questions have been conducted. They all attempted to acquire statements about the data collected through the questionnaires. This part of the interview was different for all three participant groups due to their different position within the university.

While the questionnaire aimed to attain quantitative data about the Library Services, the respective interview question "*Which services in your library do you use more than others, and why?*" focused on a qualitative approach. Through this technique, reasons and background information about the data collected in the quantitative survey could be gained.

The first variable of the questionnaire, IT Services, consisted of four items:

- S1: The IT devices (computers, internet, etc.) that the library furnishes are of high quality and speed

- S2: the service of online search is friendly and can easily be accessed on-campus and off-campus

- S3: the library web page is friendly and includes all the information that I need to know about the services of the library

- S4: when I have a problem using any of the IT services, I find all the help I need from the library staff.

The qualitative interview questions for students and academics had several differences. This is because the usage behaviour of IT Services for students focuses more on the library environment while academics also implement IT Services in their lectures and workshops. Therefore, students were asked to describe whether they were satisfied with the IT Services at their library. Academics, on the other hand, had to explain, which IT tools they use in the classroom and how those tools affect their teaching.

The next section of the questionnaire contained four items concerning the Library Collection variable:

- S5: I find all that I need of references and resources in the library

- S6: the library contains a large number of resources either as print or e-material

- S7: the library is subscribed to major local and international journals and periodicals in my field

- S8: the library collection list is continuously updated to include new trends in research and learning material.

As described in the second variable, the interview questions for students and academics were different and adjusted to their usage needs. Students were asked to explain how the library collection supports their study needs. Academics had to assess how well the library collection helps their students and their own research and teaching activities.

The third section of the questionnaire covered the variable of Facilities and Equipment with a total of four items:

- S9: The facilities and equipment (e.g. printers, photocopy machines, meeting rooms etc.) furnished by the library cover all the basic study needs of the library users

- S10: the photocopying and printing services are accessible and satisfactory

- S11: the furniture of the library including the desks, the chairs, and other supplies are fairly new and comfortable

- S12: the study facilities in the library including study rooms, meeting rooms, seminar rooms, etc. are accessible and suitable.

Interview data was collected from students and administrators about their opinion of facilities and equipment. Students explained whether the current facilities and equipment at their academic library satisfies their needs. Administrators, as the responsible institution to fund the facilities and equipment had to assess whether this area meets users' needs and expectations.

Moreover, the questionnaire included three items concerning the Training variable:

- S13: The library offers adequate learning opportunities to its users to learn about its facilities and services, e.g. via online courses, seminars, workshops, exhibitions and other facilities

- S14: the library staff are well qualified and they offer their expertise to library users whenever needed

- S15: the library provides trainings that improve my skills.

Students and academics were asked about their perception of Library Training in the interview. Once again, the questions differed in their focus due to the different role of students and academics in the academic library. Students had to evaluate their satisfaction with reference to information literacy training at their academic library. The qualitative data collection about academics' perception of the training component focused more on the collaboration between librarians and themselves, for example the knowledge transfer between academics and librarians concerning information literacy workshops.

The last part of the second section of the questionnaire, Library's Physical Environment, consisted of three items:

- S16: The library provides a quiet and comfortable environment for studying

- S17: the library is open for sufficient days at suitable hours

- S18: there are suitable areas within the library for relaxing, taking a break, and having some entertainment.

To gain more information about the library's physical environment, students and administrators were asked the same qualitative question. Interviewees had to assess how they perceive the overall Library's Physical Environment and how satisfied they were with the current situation. Academics have not been considered in this section since they neither spend a lot of time in the library, they also have no responsibility for the improvement of the Library's Physical Environment.

The third part of the questionnaire consisted of a number of perception variables, which were different for the three participant groups due to their varying roles in the academic library. Some PPP variables were also linked to qualitative interview questions.

The interview used a qualitative technique to measure user perception and gain data. Since students come to the library for various reasons, such as studying, borrowing books, using computers, attending training or socialising with friends, they were asked to explain their academic library's usage possibilities and the usual purpose of their library visits. Another question supporting the PPP variables concerned whether visiting the library influenced students' educational performance. Moreover, they were asked to describe possible reasons for their given answer.

The interview attempted to gain a deeper insight into academics' perceptions of the academic library. As faculties and library work closely together in an ideal situation, academics were asked to state and explain their opinion concerning the support their faculty's programs gain from the library. Secondly, more data about the quality and type of collaboration between the faculty and the library has been collected. Academics were asked to specify and describe the type of collaboration between librarians and academics as faculty members.

The interview questions focusing on the PPP variables extended the collected information by qualitative data. Firstly, administrators had to assess whether the current facilities and equipment at their academic library met the needs of the users. The second question focused on the performance of the university library. Administrators were asked to explain how they would improve the role of the library, for example with collection development and information technology. Finally, administrators had to state their opinion concerning the relationship between their library and the quality of higher education produced at their university. Participants therefore elaborated on the influence of the library on students' educational performance and academics' skills of teaching and research.

4.8 Research Rigour

Research rigour can be demonstrated by providing a clear picture of the link between the reliability of the instruments for data collection and analysis of research. Also, to ensure rigour or trustworthiness of this study, this section outlines the measures taken throughout its implementation. This study was carried out without bias, and all data was handled and displayed in a standard manner.

4.8.1 Pilot Study

The purpose of a pilot study is to construct test items and address construct stability of the initial questionnaire and semi-structured interview (Lancaster, Dodd, & Williamson, 2004; Ruxton & Colegrave, 2006). The questionnaire and interview structures were tested and revised. Two pilot studies were conducted prior to the final development of the questionnaires and interviews. Three types of questionnaires and three types of interviews were trialled in the pilot studies (see Appendices A, B and C).

There are several advantages to carrying out a pilot study. It provides the researcher with ideas and approaches to increase the chance of obtaining clear-cut findings in the major study. Secondly, pilot study can save the researcher major expenditures of time and money, on research that may yield nothing (Isaac and Michael 1995). That is, it may provide enough data for the researcher to make a sound decision on the advisability of going ahead with the major study. Thirdly, by

conducting several pilot studies, it is possible to get feedback from research subjects and other persons that will lead to important developments in the main study.

The researcher administered the pilot questionnaires to 50 students, 12 academics and 15 administrators in three university libraries. The procedures of the pilot study, as outlined below, were to improve the internal validity of the questionnaires, in preparation for running the study.

1. The researcher administered the questionnaire to pilot subjects in exactly the same way as it would be administered in the main questionnaire.

2. While running the pilot questionnaire, the researcher asked the participants for feedback to identify ambiguities and difficult questions. As a result, the researcher discarded all unnecessary questions, including *"How long have you been a member in your university?"* and *"What types of information resources do you need to access?"* The researcher also changed unclear questions, such as questions 1, 2, and 8, from part 1.

3. The researcher recorded the time taken to complete the questionnaire, and found that the average time needed across all three groups was about 10 to 15 minutes.

In addition, three phone interviews were conducted. The first interview was conducted with an academic who works in the Faculty of Education at Kuwait University to represents the academic category. The second interview was conducted with an academic administrator working in the Department of Administration at the Gulf University for Science and Technology to represent the administrator group. The final interview was conducted with a student from American University of Kuwait, in Faculty of Arts and Sciences, to represents the student group.

4.8.2 Ethical Considerations

In the field of library and information science, ethical considerations are very important to make participants more confident in answering survey questions (Beghtol, 2008; Miltenoff & Hauptman, 2005). The researcher completed three applications from the Human and Research Ethics Committee at Queensland University of Technology for ethical clearance, namely: (1) Human Participant, (2) Participant Information for QUT Research Project, and (3) Application for Review of

Low Risk Research Involving Human Participants. As suggested by Bouma and Ling (2004), a letter of introduction signed by the researcher was also prepared to help to identify the researcher in securing cooperation from participants.

Once the ethical clearance was attained, the information package, including information details for participants, the questionnaires and the semi-structured interviews, was ready to be distributed to students, academics and administrators from Kuwait universities, first for the pilot study and then for the main study.

The data from each study participant was collected individually by the researcher under the guidelines of the QUT Research Ethics Committee. In addition, contact details, including phone numbers, fax and email address of the researcher and the QUT Research Ethics Committee were available to the participants if they required further information about the study.

Beghtol (2008) advises that it is important to consider specific steps for ethical decisions to support the process: Is it consistent with the organisation's policies, procedures and guidelines? Is it acceptable under the applicable laws and relevant regulations? Does it conform to the universal policies/principles the organisation has adopted? Does it satisfy my personal definition of right, good and fairness? The researcher negotiated these questions with appropriate academic administrators at Kuwait universities in order to proceed with the study.

As a result of these negotiations of ethical considerations, the study included the following practices. There were no risks beyond normal day-to-day living associated with participation in these questionnaires and interviews. Those agreeing to participate could withdraw from participation at any time during the project without comment or penalty; they were also given assurance that their decision to participate could in no way impact upon their current or future relationships with Kuwait University, American University of Kuwait, Gulf University for Science and Technology or QUT. The questionnaires to be completed by students, academics and administrators took approximately 10 to 15 minutes to complete. All comments and responses are anonymous and were treated confidentially. The names of individual persons were not included in any of the responses.

The ultimate goal of this research is to be able to recommend a solution that suits perceived personal performance evaluation in university libraries in Kuwait. It is expected that this project will offer:

- benefit to Kuwait in terms of identifying the common and perceived personal performance evaluation in university libraries in Kuwait

- benefit to university libraries in terms of identifying the major and most important evaluation in their particular universities

- benefit to participants in terms of being able to see what the issues are in their library, how those issues can affect their library performance and what the solutions are for those issues at divisional level as well as at library level

- benefit to Kuwait universities/QUT collaboration in terms of future research opportunities between these universities.

4.8.3 Problems Encountered in administering the Questionnaire

During the process of data collection of questionnaires the researcher needed to resolve four major problems regarding availability and eligibility of potential participants:

- as the researcher needed to run the questionnaires in mid-December, which was during Kuwait universities' examinations and assignment submission, students and academics were somewhat hesitant to give time from their immediate needs to complete the questionnaire. To ensure that enough voluntary participants were recruited, the researcher made himself available full time on the campuses

- the researcher found that most administrators were hesitant to answer the questionnaire, even after they were provided with all the appropriate information about it. To successfully accommodate the difficulties created by their available times for appointments and the distance of their offices from each of the library campuses, the researcher found it necessary to carefully schedule the meeting with them

- the researcher was aware that more than just university students use the facilities of Kuwait's university campuses: high school students, visitors and researchers are the most common other users. It was necessary to ensure that volunteers were university students before handing them the questionnaire to complete

- according to the pilot study, the majority of participants found the questionnaire to be very clear. However, about 10 per cent of participants completing the questionnaire needed to ask for some explanation. To accommodate this need, the researcher remained available while participants completed their questionnaire, and checked when they had finished that they had understood all the questions.

The reliability coefficient alpha increases with an increasing number of variables in the analysis. Hence, the more variables included in the questionnaire, the higher the value of alpha. However, since there are five library factors to be investigated in this study, it implies that the total number of items on the questionnaire will increase by five when the number of items of each factor on the questionnaire is increased by only one additional item. On the other hand, by increasing the length of the questionnaire the risk of incomplete responses rises, as well as the risk of a decreasing rate of responses to the questionnaire. The questionnaires were derived from literature reviews, but due to the lack of closely related studies regarding perception, the questions were devised solely by the researcher.

4.8.4 Problems Encountered in Running the Interviews

For the interview component of this research, students, academics and administrators in Kuwait universities were invited to share their opinions, feelings, thoughts and ideas about perceived personal performance in academic libraries. During the process of data collection, the researcher needed to resolve several problems regarding the level of understanding of the actual interview questions:

- The main challenge of data collection was that some interviewees, particularly students, gave very short answers with little explanation, which was not enough to meet the research requirement. The researcher then needed to explain further, giving more description to get appropriate answers to cover all aspects of the questions.

- When discussing question 3 *(What type of collaboration do you find between librarians and you as a faculty member?)*, some faculty members began to speak more about their own library use rather than about faculty-librarian collaboration for supporting student needs. As this question was important for the research, the researcher gave examples of faculty-librarian collaborative activities that helped the participant focus on the question.

- Interviews required about one hour, and for administrators particularly needed to be scheduled within work hours. Because of this, administrators often needed to interrupt their interview responses to attend to work-related problems and needed reminding about what they were saying before the interruption occurred.

- Some administrators seemed tentative about the interview questions and asked for further clarification of some of the terms in the questions, which was given. In later interviews, this clarification became part of the information given in the researcher's opening question, as shown in the following example:

- University libraries are always trying to improve their services to meet user needs, in order to support students in their research and in advancing their knowledge. Library staff ensure that required materials (books, computers, etc.) are available and that students know how to access them. *"As you are an administrator, what is your opinion about the services of your library?"*

4.9 Summary

This study aimed to examine two issues that affect evaluation of university libraries, and how university library use of resources and services has an impact on

the university achieving its goals and objectives. Therefore, this chapter described the development of the questionnaire and semi-structured interview, and explained its use in refining theory. It also described some methodological issues related to questionnaire and semi-structured interview development, sampling design, and data collection. In addition, the researcher outlined the statistical analysis of the collected data, leaving the details of the analysis and the discussion of the results to the section on statistics analysis. This chapter then described pilot study as important for improving the internal validity of the questionnaires and interviews, in preparation for running the study. This included feedback from participants to identify ambiguities and difficult questions, and the average time needed.

This study was subject to the policy dictated by ethical clearance guidelines which are implemented by the Queensland University of Technology. Therefore, this chapter outlined ethical consideration. Finally, this chapter explained the problems found in running the questionnaires and interviews.

The next chapter sets the research context, by introducing the State of Kuwait and the three universities whose libraries were included in this study.

Chapter 5: Introduction to Kuwait University Libraries

This chapter covers the three academic libraries included in the study, and examines the differences between private and public university libraries in Kuwait. Facilities and general services the libraries provide are described in detail for each of the institutions. Furthermore, information literacy is examined, and comparisons made between how they are provided. Each library's collection is discussed and evaluated based on its size and quality.

The State of Kuwait is a sovereign emirate on the coast of the Arabian Gulf, enclosed by Saudi Arabia to the south and Iraq to the north and west. It has a population of 3.1 million and an area of 17,818 km² (U.S Department of State, 2011). The attendees are both local and foreign, consisting of British, American, Pakistani, and Indians as well as citizens of other Arab countries who work in the oil industry and in service jobs (Buyd, 1999). Kuwait is a constitutional monarchy with a parliamentary system of government, and Kuwait City serves as its political and economic capital (U.S Department of State). Kuwait is a small, rich, relatively open economy with proved crude oil reserves of approximately 96 billion barrels (10% of world reserves). Kuwait's economic growth has been robust in recent years, driven by strong performance in both oil and non-oil sectors. Reflecting rising oil prices and production, economic growth improved greatly in 2003. Kuwait's current account has been in substantial surplus, mainly on the back of a large surplus in its merchandise trade balance, which is led by oil exports.

Recently there have been large financial investments from the Kuwait government in public education, and from foreign investment to private institutes. Kuwait University (KU) is receiving further investment from the government, with a new 370 hectare site being built, making it the largest campus in the Middle East. Other investments are being made in education as many universities are rebuilding or relocating to larger and modern buildings.

5.1 Kuwait University Library History

During the Iraqi invasion of Kuwait in 1990, Kuwait University Library (KUL) was damaged, resulting in a large percentage of its collection being destroyed. KU has established eight libraries across its various campuses (Kuwait University Library Guidebook, 2006). The Administration (KULA) supervises the administrative and technical aspects concerning the university libraries. It is considered a basic centre for academic and research activities at KU. It seeks to promote communication and new services within the KU, and external participation in cooperative efforts, proposals, agreements and projects (Kuwait University guide, 2005).

Before the Iraqi invasion of Kuwait in 1990, KUL contained 320,000 non-Arabic titles and 135,000 Arabic titles. There were roughly 500,000 continued and discontinued periodicals. The estimated price of lost collection was 20 million US Dollars (Abdel-Motey and Al Hmood, 1992). Further losses in computer equipment were valued at 4.5 million US Dollars, and furniture destroyed was valued at 7.5 million US Dollars. The vast majority of the collection was stolen or destroyed by the Iraq army, but Kuwait has worked closely with the United Nations in trying to retrieve the stolen collections. To date approximately 120,000 publications have been returned to Kuwait. The academic libraries also lost many highly skilled personal due to the invasion. Many international staff working in Kuwait returned to their home countries and became untraceable as no contact details were stored.

5.1.1 Library Collection

The KUL Collection contains approximately 250,000 titles and 400,000 volumes of Arabic and non-Arabic monographs, 1,500 original manuscripts and 15,000 manuscripts, reference materials, dissertations and reports on microfiche. KUL subscribes to 64 databases and 2,445 scientific periodicals. There are electronic journals accessible through full text databases and through *LibriAccess*. The audio-visual collection consists of about 20,000 items (Kuwait University Guide, 2005).

KUL has uses two international classification systems through the Library of Congress and Dewey decimal classification. The library catalogue includes bibliographic records for Arabic and non-Arabic books of all disciplines. English

periodicals may also be searched by using the catalogue (Kuwait University Guide, 2005).

The library offers a high-speed central network, with download speeds ranging from 10 Mbp/s up to 150 Mbp/s. The various library branches are connected to the central network by 2Mbp/s connections. The library branches are undergoing improvements, such as installing fibre optic lines and high speed satellite download links.

5.1.2 Library Branches

There are eight library branches of the Kuwait University, as follows:

- *Jaber Al-Ahmed Central Library (JACL) –* constructed in the academic year 2001-2002. It is 18,000 square meters in size and has three floors. JACL has roughly 125,000 volume of Arabic and non-Arabic books, references, dissertations, and governmental publications. JACL is subscribed to more than 1600 periodicals from a variety of different disciplines. The JACL collection covers Administrative Sciences, Arts/Humanities, Social Sciences, Special Collections (United Nations Collection and Manuscripts Collection) and the Audiovisual Library Assorted Collection. Library manuscripts are stored in a controlled environment to persevere the 1100 originals which are stored in the building. The library study facilities are numerous, and private study rooms are available for groups. The library contains male and female private study rooms to cater for users comfort and religious needs (Jaber Al-Ahmed Central Library, 2007).

- *College for Women Library (CWL) –* the vision of the CWL is to provide and promote access to information in all formats in support of academic programs and scholarly research at the university. Also, it aims to meet the information needs of the local community (College for Women Library Guide, 2007).

- *Education Library (EL)* – was established in the academic year 1982-1983. EL contains collections including printed and non-printed resources. EL supports the academic programs of the university and provides resources for the Faculty of Education. There are vast collections relating to educational programs (Education College Library, 2005).

- *Engineering & Petroleum Library (EPL)* – provides collections related to engineering and petroleum studies, for example, Civil Engineering, Architecture, Chemical Engineering, Electrical Engineering, Mechanical Engineering, Computer and Industrial Engineering. The engineering library has separate goals and missions from those of the central library. Kuwait has a strong reliance on petroleum, therefore the goals and missions are to produce highly trained and skills petrochemical engineers for the future. This library holds over 18,000 book titles, 640 periodicals and 4 full text databases, all specialising in engineering (Kuwait University Library Guide, 2005).

- *Art Library/Women* – established in the academic year 1966-1967, this library includes content from a variety of information sources. The library houses around 50,000 English and Arabic texts in topics relating to the arts. It has up-to-date IT and is an essential academic support encouraging scientific research in the humanities (Kuwait University Library Guide, 2005).

- *Science Library* – this academic library's mission is to support the educational, research, and service programs of the College of Science, as well as the academic community through the dissemination of knowledge. The library contains diverse science collections. The library specialises in articles relating to biology, chemistry, earth and environment, mathematics, physics and statistics. The library houses over 3000 Arabic, 35000 English titles and almost 2000 periodicals (Science Library, 2009).

- *Sharea'a and Islamic Studies Library* – established in 1983, it is one of the most substantial sources of information at Kuwait University and in the community at large. The collection contains both Arabic and non-Arabic print materials from a wide range of books and periodicals. It is unique, in that, it has one of the largest Arabic collections within the Kuwait library system. The library contains over 30,000 Arabic titles, which relate to Islamic Sharea'a law. (Kuwait University Library Administration, 2006).

- *Law Library -* the KU law branch specialises in law. It has a large collection of law journals and papers. The last five years has seen a large increase in spending on law facilities at the university, and a corresponding investment in the Law Library to meet student demand.

The KULA plays an important role in the community by supplying academic and research publications and other items through the Gift and Exchange Division. The administration provides in-house training within the libraries and technical divisions.

All library materials may be checked out with the exception of references materials, theses and dissertations. Table 5.1 shows the circulation policy for KUL specifying type of users, number of item that can be borrowed, loan period allowed and library requirements.

Table 5.1

Circulation Policy of Kuwait University Libraries

Borrower	Borrowing card	Maximum number of items	Loan period	Requirements
Professor Assistant professor Visiting professor Language teachers	Issued at college library and library administration in the case of language teachers	15 items	One semester	• Application form • KU ID • Photo
Teaching assistants Lecturers Postgraduate students	College library	10 items	One month	• Application form • KU ID • Photo
KU undergraduate students and KU staff	College library	5 items	Two weeks	• Application form • KU ID

Non-KU individuals	Library administration	5 items	Two weeks	• Photo
				• Application form
				• Photo
				• Deposit 40 KD for civil servants
				• Deposit 80 KD for non-civil servants

5.1.3 Instruction and Orientation Services

General Orientation: KUL provides a general orientation service where library staff show new students how to use the electronic catalogue OPAC, facilities, collection and other services. KUL staff offers new students a foundation on library use.

Information Skills Workshops: These workshops introduce students to research process, effective internet use and databases such as EBSCO. These workshops were developed by librarians to ensure that students have the necessary skills to meet the challenges in their study.

Research Seminar: The library arranges research seminars for students to learn about important issues related to research study, such as copy-rights, ethics and research structures.

5.2 GUST Library

Gulf University for Science and Technology (GUST) has one library on campus called A.M.Al-Refai. The library provides many kinds of services to support library users. It attempts to enrich learning, teaching and research by delivering easy access to related information resources and through collection development and quality services (A. M. Al-Refai Library, 2002).

The library has approximately 75 computer workstations, all of which are connected to a wireless broadband internet connection. The library provides digital resources that give users access to research materials through links to electronic resources, for example, electronic journals. The library has access to more than 50,000 scholarly journals in digital format. The collection supports core curriculum

degree requirements, general education, and elective classes. The library houses over 11,600 printed books, classified according to the LC classification system.

It provides full-text coverage for nearly all academic areas of study including social science humanities, education, computer science, accounting and finance, business management, and economics. In addition, the library has about 50,000 electronic books (e-books). The e-books are full-text electronic versions of published books to give users the opportunity to search, read and create a personal bookshelf (A. M. Al-Refai Library, 2002).

5.2.1 Library Services

GUST Library provides an array of resources and information services for teaching and research needs and the support of faculty instructional activities. These services are as follows:

- The library online catalogue called Horizon Information Portal (HIP) provides access to all the collections in the library. HIP as a database can read both Arabic and English and offers the ability to search the library catalogue over the World Wide Web using a compatible web browser, for example, internet explorer 5+ through the library website. Users can search the catalogue on various indexes such as title, author, subject and call number.

- GUST Library provides quality access services for students, academics and other users. Registration automatically allows users borrowing privileges.

- GUST Library also provide IL programs to faculty, staff and students to improve understanding and develop a skill set that enables individuals to recognise where and when information is needed. The aim of IL is to develop GUST Library user's ability to locate and identify information effectively and to promote the library as a resource for lifelong learning.

- The GUST Interlibrary Loan (ILL) service provides books, journal articles and other information resources as loans or copies. This service allows students, academics and researchers access to specific resources which are unavailable in the GUST Library.

- GUST Library has computers available for students, academics and administrators to access library resources. Wireless internet access is available throughout the library.

5.2.2 Library Collection

The library provides resources which are available in a variety of formats as follows:

Books- the Library has over 12,000 book titles. Books are classified according to the LC classification system.

Electronic journals- Gust library is subscribed to more than 55,000 electronic journals. The journals cover all the core studies within the university, including science, arts, social sciences, business and engineering.

Electronic books- The library has subscribed to over 60,000 electronic books, which includes lecture notes and electronic reference works.

Reserve Collection- the reserve collection includes items designated by faculty for their course usage as well as highly used core texts that require limited circulation. It is located behind the circulation desk.

Reference Collection- the reference collection comprises encyclopaedias, dictionaries, thesauri, atlases, almanacs, handbooks, and manuals. Reference items are for in-house use only.

Periodicals/Journals- the library subscribes to 170 periodical/journal titles in print format, arranged alphabetically and located in the periodical area.

Audio-Visual- the audiovisual collection consists of video and audio cassettes, CDs, and DVDs. The CD and DVD collection is available for on-site viewing only.

Special Collection- the special collection comprises Arabic books, Islamic Banking and Finance, American Corner, Gulf Heritage, theses, and dissertations (A. M. Al-Refai Library, 2002).

5.2.3 Information Literacy

The library offers training and teaching sessions to improve user skills and advice about writing papers and reports. IL allows users to access, evaluate, organise

resources and use information from a selection of sources effectively. The library offers training sessions on how to locate information using databases such as EBSCO, JSTOR, elibrary and AcessScience. It offers online tutorials on programs such as Library User Guide, Library Website User Guide and HIP User Guide (Al-Refai Library, 2006). The training and teaching sessions are as follows:

- EBSCO Databases Training: is simple training that teaches library users how to create and execute a search strategy to retrieve highly related information for any GUST projects or assignments utilising this database.

- Library Orientation Tours: provide an important form of information. The library tailors the orientation tour to individual and group requirements.

- The Guides to Literature Search: explains how to conduct a literature research. For example, the Texas Information Literacy Tutorial (TILT) is a very comprehensive IL website with online modules that walk you through a range of topics and discuss the issues involved in selecting, searching and evaluating information.

To keep the users of GUST library up-to-date for any promotions about library events and news, the library issues a magazine called *Library Newsletter*. It is produced every semester and highlights some library activities (Eliot, 2009).

5.3   AUK Library

American University of Kuwait (AUK) was established in 2003, but was open to the Kuwait public in September 2004. The university is privately funded and receives no funding from the government of Kuwait. The educational system of AUK is based on an American model and all teaching is conducted in English (Mills, 2009).

According to the director's report, the missions and goals of the AUK library are to provide students with knowledge, self-awareness, and personal growth experiences, to promote critical thinking, effective communication, and respect for diversity. AUK seeks to create leaders and life-long learners who abide by their ethical responsibilities in society. AUK Library provides quality information resources to improve levels of students, academics and administrators *(*American University of Kuwait, 2006).

The university is relatively small compared to KU, but is continuing to grow and develop new faculties, and increase its undergraduate intake. The university runs Bachelor degrees in a variety of studies including business, arts and engineering. The university's sister campus in America is Dartmouth College, a highly respected institution with a long history of high academic standards. The American influence on the campus can be felt, with facilities such as American style restaurants, Starbucks coffee and American style sports facilities available.

The library operates seven days a week. The opening times are 8am-9pm Sunday-Thursday, 12pm-6pm Saturday, and 3pm-8pm on Fridays, due to Islamic religious schedules. The hours of opening are slightly reduced during the summer, and reduced further during Ramadan.

5.3.1 Overview of Library Services

AUK library and the library administration provide a wide variety of services in an attempt to meet users' needs. The AUK Circulation Policy states that every user has to own a valid AUK card when borrowing print publications or media materials. Users are responsible for returning borrowed materials before or at the due date. The university sends out notices after the due date. Users' are required to pay fines for the late return of library resources. The loan periods for students are generally shorter than the loan periods for staff and faculty members. Students have to return books after 21 days, university staff after 28 days and faculty members after 42 days. Media materials such as DVDs, audio and video tapes have to be returned after 3 days by students and after 5 days by all other AUK library members. AUK library card holders can renew their materials in person, via email or telephone before the due date. If the borrower damages or loses an item, the user pays for the replacement cost of the item, plus a processing fee (American University of Kuwait Library, 2009).

Student inquiries can be answered via the reference services provided by the library. References are provided in various forms including CD-ROM, bibliographies, printed publications, encyclopaedias and online databases. The library also offers a wide variety of online encyclopaedias, such as Britannica and the Encyclopaedia of Islam.

The AUK Library offers reserve services for required readings for students and text book copies. These materials are reference only. Students can use the photocopy

facilities to copy relevant information from books which they cannot remove from the library. Every member of the AUK Library is provided with 250 free photo copies per semester and can purchase more photo copy credit during the semester (American University of Kuwait Library, 2006).

The library is relatively new and modern, with a clean and organised feel. The library is fairly small, reflecting the size of the university population, so this is not a problem. The furniture and equipment is of high quality. There is plenty of personal space to work at workstations and computers. The staff are well trained and informed in all aspects of the library. They are able to assist in either Arabic or English language.

5.3.2 Information Literacy Instruction Program

Library catalogues and databases have a wide variety of knowledge, but many library users lack the basic skills to find this information. Libraries around the world have different ways of teaching IL skills to users, with workshops and video tutorials being the most common. AUK Library uses online videos and PowerPoint presentations to teach library users how to find the information they require. The tutorials cover the use of:

- Using the Library Catalogue: this tutorial shows how to search for library items using catalogues to find books, articles, Journals and conference or seminar papers

- Accessing Online Resources: this tutorial shows how to access online resources including databases and full-text services. Students may view, download and/or print contents from these services provided to use them for student studies or teaching for faculties

- Using EBSCO –Databases: this database provides the CDU library with more than 20 databases that cover a range of subject areas and each database indexes thousands of scholarly journals

- Searching JSTOR: it provides a full text of over 200 scholarly journals in science, humanities and social sciences

- Using Lexis-Nexis: it provides full text and citation access to information in the reference, medical, business an*d legal disciplines.* The advantage of Lexis-Nexis is that it covers general news topics and news transcripts (American University of Kuwait Library, 2006).

Video tutorials used by the AUK Library website are short at approximately three minutes long. They give a step by step guide, but do not explain why you should carry out particular steps. Users merely follow a copying process rather than developing understanding. IL should be regarded more highly by the AUK Library, and workshops should be run teaching basic IL skills. Many University libraries run extensive training in IL, which equips students and library users with the skills they require to find information and to structure assignments and papers. Investing in better training in IL may aid the students in improving their grades. Undergraduate students may lack the knowledge to find information effectively due to a lack of basic training. Investment in the library website to advertise library courses and to inform students regarding what they can learn by taking workshops on IL may be useful.

Table 5.2

Information Literacy and Resources at AUK Library

Library tutorials	Document suppliers	Resources on the Web
- Using the Library Catalogue - How to Access the Online Resources - Searching EBSCO Databases - Searching JSTOR - Using Lexis-Nexis	- Access Information - British Library - CISTI Source - Find Article - GeoRef - Haworth Press - Informaworld - Ingenta - Pubmed Central - Questia - SAGE full-text collections - Washington Document Service - Wiley InterScience	- AskZad the Arabic Digital Library - Al Babtain Encyclopaedia - CIA-The World Factbook - InfoPlease - Merriam-Webster Online - Medline Plus - The Internet Public Library - Word Reference Dictionaries

Internet Searches: the AUK librarians are able to guide users to find information on the internet. The AUK Library's webpage provides links to the electronic databases and the Library's collection.

Document Supply: library staff will obtain documents and journal articles required by AUK faculty members but not held in the library's collection, from other libraries or suppliers.

The library offers a variety of research skills which teach users how to find and analyse information resources. AUK Library offers IL and instruction programs, guided tours and in-class orientations at a range of times throughout the academic year (American University of Kuwait Library, 2006).

The mission of the library is to support the educational mission of the university, through facilitating access to relevant resources. AUK Library has goals to improve the educational performance of users. They are:

- To organise and maintain information resources and provide academic and physical access to library resources and expert assistance.

- To teach students, academics and administrators about storage and information retrieval.

- To maintain communication with all users to determine needs and to raise awareness of the expanding range of library services and resources.

- To support a functional and suitable environment for collections, study areas and services for users and staff.

5.4   Library and Information Skills – Kuwaiti University Libraries

Reman and Mohammad (2002) examine the level of library skills at KU while testing the correlation between the level of command of library skills and personal and academic factors such as gender, age, type of previously attended high school, class level, academic performance and level of English. The research problem relates to library resources and information needs at KU. Although learning content is accessible in students' native language during high school, the primary language changes to English when entering university. Reman and Mohammad report that

many students struggle with accessing databases and other library resources and approaching staff, due to the barrier created by the different language. The results suggest that students at KU lack comprehension of basic library terminology and fail to interpret catalogue entries, and the locations of library materials. A large number of students did not feel comfortable using the library's electronic resources. The study implicates that the variables of age and type of secondary school were significantly related to students' library skills. English proficiency, gender, class level and educational performance did not show a significant relationship to the usage of library resources. The researchers suggest that KU offers students very little training, and that training schemes should be designed to bring new students up to the acquired standards in using a university library.

Hamade and Al-Yousef (2010) investigate the usage of library resources in KUL, with regards to post graduate usage. The study found that printed books and journals were the most common resource used in the library by post graduate students for writing literature reviews. The findings that books are the most frequently used resource is of relevance to the current study, Hamade and Al-Yousef suggest that the more frequent use of printed collections is due to poor training in the use of electronic resources.

5.5 Information Technology- Kuwaiti University Libraries

Al-Ansari (1999) evaluated the improvement of organisational structure at KU libraries through the perspective of information technology and electronic environment. Changes arose through increasing usage of technology, trends towards access over ownership, the focus on the customers and reformation of higher education. The study also examined how the traditional structures of a library need to change to reach high efficiency and responsiveness to changes in the environment as well as problems that occur during the implementation of these changes. The author found that Kuwait libraries have to change radically in order to be ready for future challenges. Library leaders have to restructure hierarchies and build organisations, which are flexible, service-oriented and provide efficient and effective solutions for all operations. Library staff have to become aware of the importance of a user-centred vision. However, uncertainties and negative reactions from stakeholders and the need for additional resources can arise during the implementation process.

Library administrators need to be aware of these issues and critically guide all stakeholders through the process of change.

The fast changing environment of information technology is increasingly important for societies. Technological developments also tend to be in advance of learning processes in the academic environment. They offer possibilities for educators to lay a greater individual focus on each student and provide a variety of different academic teaching and learning materials. Academics have to gain IL skills in order to use information technology resources more efficiently. In turn, the academic organisation has to provide workshops and training to improve the usage skills of academics (Al-Ansari, 1999).

Rehman and Ramzy (2004) evaluate library staff's effective use of technological resources at KU. Members from three different faculties participated in a quantitative e-mail questionnaire evaluating various factors of IT library usage on the basis of Likert scale questions. Although libraries tend to provide staff and users with current information technology resources, the majority of academics are unaware or partly unaware of the effective and efficient usage of these teaching and learning possibilities. This is especially significant due to the finding that the most important reasons for library visits were the conduct of research and the preparation of lectures and other academic learning activities. The results indicate that academic staff are willing to participate in training programs and workshops in order to increase their IL skills. This would, in turn, support academic performance in the classroom environment.

University libraries play an important role in providing different types of knowledge sources, including IT. To use these resources efficiently, libraries have to ensure the education of academics in IL skills. Training of academics has to occur regularly to keep up with the enormous pace of information technology advancements (Rehman and Ramzy, 2004).

Changing information technology requires continuous enhancements in library concepts and the library environment. Concepts have to be adjusted according to new trends in organisation structure and facilities in the library environment need to make information technology resources effectively and efficiently accessible. Alqudsi-Ghabra (1999) case study explores factors and arguments for resource sharing at

three academic libraries at KU and other educational institutions in Kuwait. As libraries are one of the most important providers of information in Kuwait society, Alqudsi-Ghabra found that resource sharing is basic for the observed academic libraries, independent of whether the collection is horizontal or vertical. The author contends that along with this trend, the library environment has to adjust to the changes in information technology usage and resources to meet the general requirement of libraries as information providers. This is a dynamic process in which library stakeholders have to ensure the change of the library's physical environment with the continuously changing patterns of information technology. Libraries will improve if *"the development of the information society can be supported by government but not controlled"* (p.155).

The Al-Doub, Goodwin, Al-Hunaiyyan (2008) study investigated student attitudes towards e-learning in public and private universities in Kuwait. Their study used GUST library and the Business library of KU to determine the differences in e-learning at the two universities. The authors state that GUST students used laptop computers to a far greater extent than those at KU, due to the quality of the wireless network at GUST. Female students were asked about the possibility of using online discussions with academics. A high number of females stated they would prefer to speak with their male lecturers via the web compared to female lecturers. This is interesting due to the cultural implications of such actions within Kuwait. Language played a role in e-learning due to KU using Arabic taught instruction and GUST using English instruction. KU must use Arabic language packages for e-learning regardless of the students' preference.

5.6 Strengths and Limitations of Previous Research about Kuwaiti University Libraries

Previous studies have been conducted in Kuwait university libraries on a variety of subjects. However there are many gaps in research conducted in Kuwait due to the relatively short history of Kuwait universities compared to other countries. The Kuwait government gave permission to third party investors to construct private universities in 2002. There are no studies which have been conducted in a private university regarding academic libraries to date. KU has eight library branches which are the focus of previous studies, but Kuwait now has ten privately owned

universities. Previous studies have included questionnaires and interview data carried out in KU, but this study includes a larger number of participants. Small participant groups tend to lead to inconclusive results.

Previous studies in Kuwait focusing on IT usage and technology are outdated (Al-Ansari, 2006) and library usage has changed especially regarding the internet, computer speed and programs now available in the academic library. Studies which focused on library skills are also outdated as they refer to students being uncomfortable using IT in research and assignment writing due to students lacking IT skills in 2002 (Rehman and Mohammad, 2002).

Users satisfaction has become a topic of investigation in Kuwait recently, for example, Al-Ansari and Kulaib (2011) researched user satisfaction with library services in JACL.

After the Iraq invasion in 1991, many studies focused on the quantitative and qualitative loss to academic libraries in Kuwait. The figures and values recorded are extremely accurate, with every item within the library being accounted for. This allows estimations of the size of Kuwait's library collections to be extremely accurate.

5.7 Conclusion

This chapter presented basic information on higher education in Kuwait, an insight into the three kinds of university libraries in Kuwait, and charted the importance of functions and services that libraries can provide their users. The purpose of describing the libraries and their users within this chapter is to inform the reader regarding the role of academic libraries in Kuwait. This chapter has focussed on the KU library, the largest academic library in Kuwait, with eight branches, each containing an extensive collection. In comparison, AUK library and GUST library only have one branch which is why the majority of the data was collected from KU library users.

From this chapter, one can observe that all three university libraries in Kuwait are providing adequate services comparable to any academic library in the world with regards to computer availability, electronic resources and digital material facilities. However, there is a need to focus on informing and training people on how

to use the library services. It is recommended that programs or courses be developed and implemented on campus which introduces undergraduates, postgraduate students and staff to the following:

- the storage and retrieval of relevant information

- effective strategies for the management and seeking of information

- high quality literature review, research strategies, and the structure of theses, particularly for postgraduates

- appropriate search techniques for online search databases.

In comparing all three Kuwaiti university libraries with those of successful universities in America, Britain and Australia the researcher found that there were many similarities between the institutions, such as modern equipment and high-quality technology. The differences, however, include the specific collections in Kuwaiti libraries of Islamic texts, some of which are old and becoming irrelevant. KUL has a library solely for women as part of the separate college for women, which was established as a result of the demand by those women preferring to study separately from men, due to cultural and religious beliefs. On the back of the success of this college, the Australian Box Hill College Kuwait was also established as a private college for women.

This chapter has outlined previous research about Kuwaiti university libraries and identified the need to update and expand this research. The next chapter outlines the findings in the questionnaire phase of the thesis research.

Chapter 6: Questionnaire Findings

6.1 Introduction

This chapter will discuss the results of the statistical analysis carried out on the data collected from the questionnaires discussed in chapter 4. Three different questionnaires were used to elicit information from three groups: students, academics and administrators. The results of each questionnaire are discussed separately in the respective sections. Conclusions relating to all three questionnaires are included in a fourth section at the end of the chapter. The discussion of the results of each questionnaire includes a summary and statistics of the main results in the samples, supplemented by graphs and tables describing the characteristics of students, academics and administrators of Kuwaiti universities. The data collected was analysed using software called PASW (formerly known as SPSS, version 18), and also using Microsoft Excel.

The analysis also includes an examination of the quality of the data to ensure validity and reliability of the questionnaire instrument, and also to guarantee sample representativeness. This involves various verifications of the data. These include tests for randomness of responses in different groups of samples, patterns and sets of missing responses, different types of plots, and tables to capture the main features and characteristics of groups of respondents. There is also the issue of systematic bias in the data, which is more serious than random error. This source of error cannot be eliminated using any of the statistical analytical tools, but only through a well-planned study in the design stage and also through sound sampling practices.

6.2 The Statistical Analysis of Students' Data

A total of 792 students were sampled from all three Kuwaiti universities under the study, namely KU (578), GUST (117), and AUK (97). These sample sizes reflected the respective number of students in each university. Participant numbers were close to the optimal target sample sizes opted for by the design, as will be explained in more detail in the following subsections.

6.2.1 The Statistical Analysis of the Demographic Variables

The response rate to the questionnaire was high with little missing data. Bias was reduced by the random distribution of the questionnaires to the students in the library. To avoid the systematic bias associated with recruiting in the library, the questionnaire was also distributed to students in classes, rest areas and students coffee shops. For the student group, the majority of questionnaires were completed face to face with students, but the academics and administrators' questionnaires were collected at a later date, as they were returned to library staff for the researcher to collect. Care was taken to keep all sources of systematic variation under control in the design stage, and to eliminate all potential sources of bias, except of course random sources, which will be dealt with in the analysis.

Figure 6.1 presents demographic information regarding which university campus the questionnaire participants attend. The study target sample size was 600, 120, and 100 students respectively for KU, AUK, and GUST. The sample size was based on an overall percentage of the university population; 3% at each university. It is clear from Figure 6.1 that total responses closely met these targets. Figure 6.1 refers to the above target sample, however after the data was analysed, the final number of students for KU was 578 (73%), GUST 117 (15%) and AUK 97 (12%). The percentages show the size of each sample with regards to the overall figure.
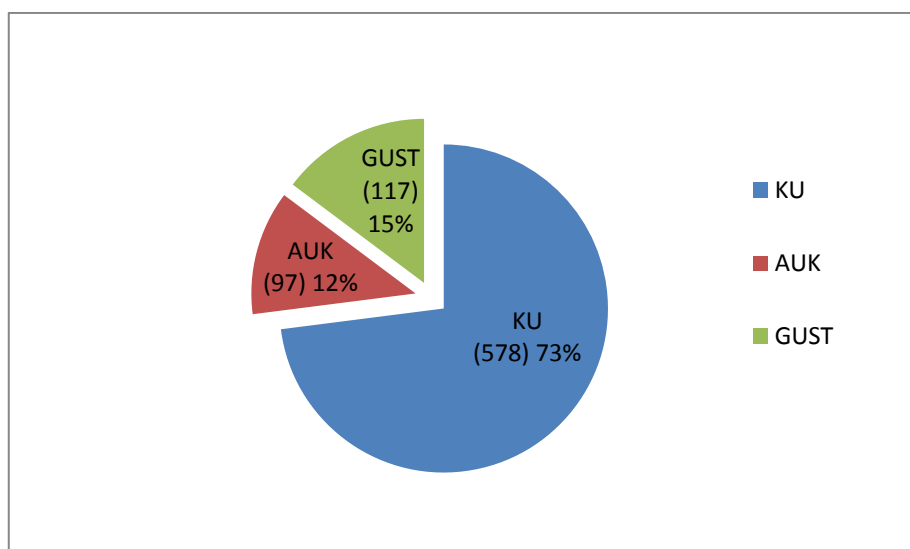
Figure 6.1 Distribution of students across the three universities

Figure 6.2 illustrates the variable faculties used in the study, at each of the three universities. The target sample sizes for the colleges were set between 15 to 50 students per college depending on the college size. It is clear that this target was satisfactorily met for all but two or three colleges, which were probably under-represented in the sample. The sample sizes for colleges of Medical Sciences were six students. Dentistry has a low number of responses at 14, but this figure is close to the target of 15 that was set for these colleges since they have small enrolments.
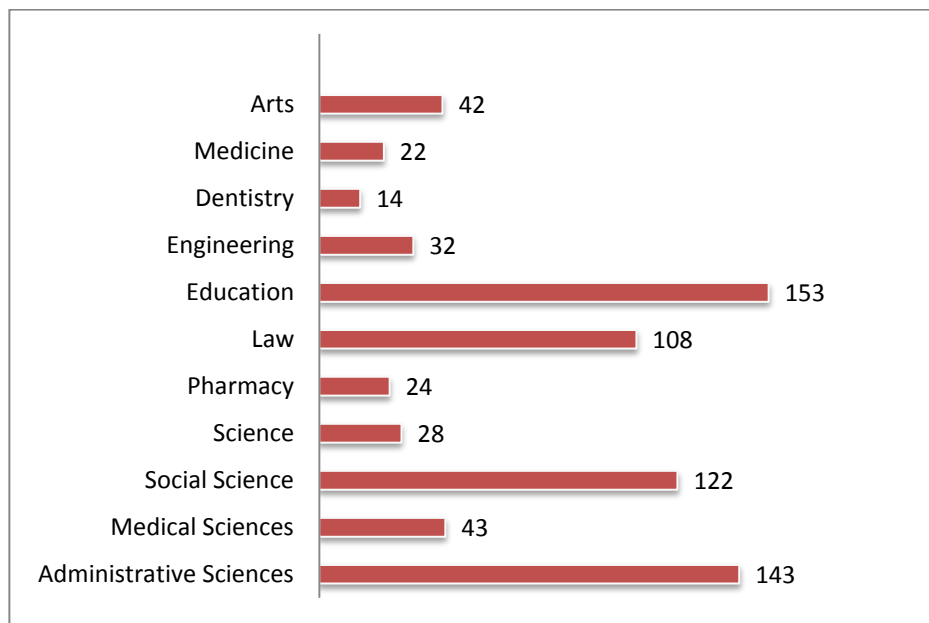
Figure 6.2 Distribution of students across the three universities

The participants were randomly picked from the library users at the three Kuwaiti universities. Students studying education, administrative sciences and social science made up the majority of library users (53%). This greatly outnumbers dentistry, pharmacy and science that make up approximately 8% of the responses. The finding that social science students used the library frequently is supported in the findings of Chrzastowski and Joseph, (2006). The researchers also found that science and medical science students were less frequent users of the academic library, which is also supported in results of the current study.
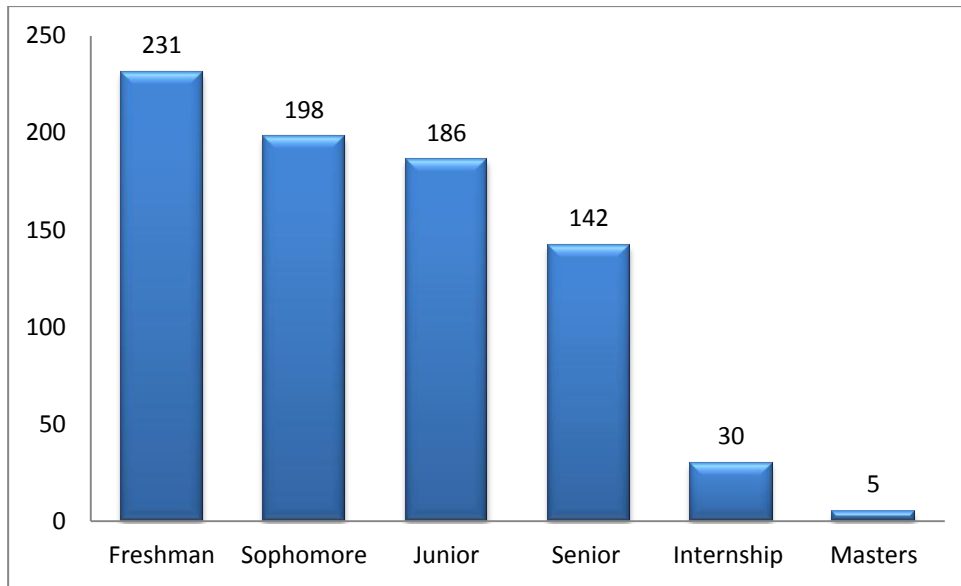
Figure 6.3 Academic year of students

Figure 6.3 shows the academic year of students and their library attendance. The majority of students attending the library were freshman (231), 198 were sophomore, 186 juniors, 142 seniors and only 30 are working in internships. The minority are the Masters students, with only five students in pursuit of their Masters degree attending the library.

It was expected that students in their final years of study (junior and senior) would use the library facilities more. However 429 out of 792 students (54%) who participated in this study were in their first two years of academic education (sophomore and freshman). This finding was unexpected due to a previous suggestion that students in the final two years of study use the library more (Bridges, 2008; Simmonds & Andaleeb, 2001). The remaining students (junior, senior, internship and masters) made up the rest of the sample (363 out of 792 students). The reasons for freshman students not using the library is thought to be that libraries can be an intimidating place for students new to university, meaning many students do not want to look out of place by asking questions and looking "lost" (Eschedor Voelker, 2006).
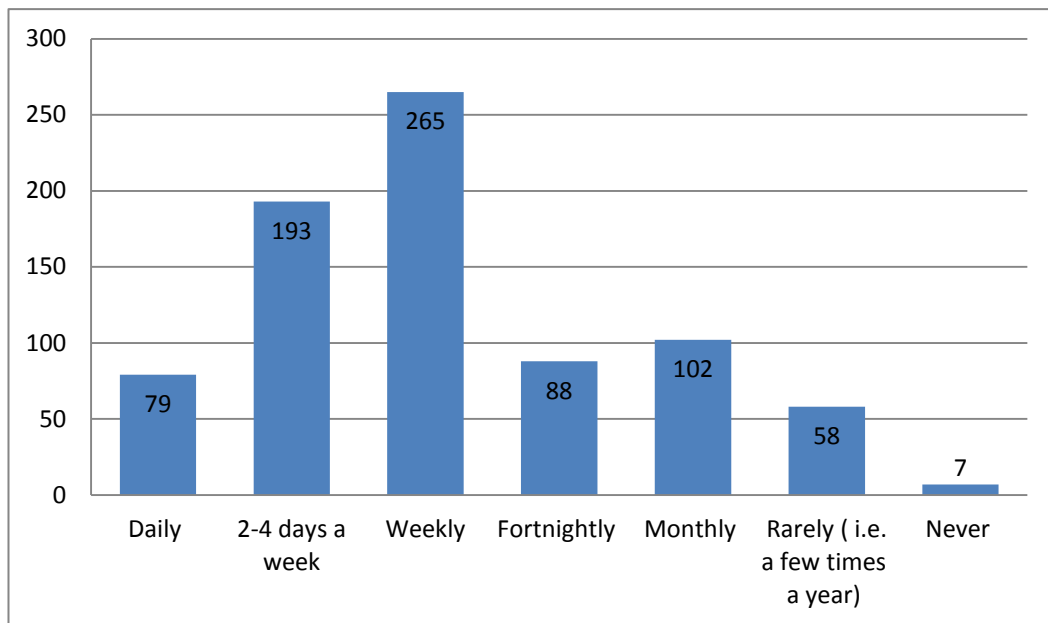
Figure 6.4 Frequency of library visits (students)

Figure 6.4 shows the frequency of library visits by students. The sample size was 792 students. 265 (33%) students visited the library every week, with 193 (24%) students visiting two to four days per week. Monthly visits were made by 102 (13%) students whereas 88 (11%) students visited fortnightly (twice per month). Daily users of the library totalled 79 (10%) students, while 58 (7%) students rarely visited; only using the library a few times per year. Only seven (1%) students had never visited the library. According to these findings, the majority of students visit the library weekly or up to four days a week (458 out of 792 or 58%). Other studies support weekly library usage as being the major category of library usage. In total the current study found that 67% of participants use the library once a week or more, which was supported by findings from Jiao and Onwuegbuzie (1997); they state that 80% of library users attend the library once per week or more.

Table 6.1

The gender distribution of students' sample

Gender	Number	Percentage
Female	463	59%
Male	328	41%
Total	792	100%

Table 6.1 illustrates student gender. In all three universities, 463 female students took part in the study, whereas only 329 male students participated. Therefore the majority of questionnaire responses are by female students. The gender gap will be noteworthy when examining study results.

Table 6.2

Time spent in the library per visit

Time	Number of students	Percentage
Up to 1 hour	**373**	**39%**
1 to 2 hours	**165**	**26%**
2 to 4 hours	**177**	**24%**
4 hours plus	**77**	**11%**
Total	**792**	**100%**

Table 6.2 describes the amount of time spent in the library per visit by students. The majority of students 373 (39%) spent up to one hour in the library, followed by 165 (26%) who visited the library on average, between one and two hours per visit. Spending two to four hours in the library were 177 students (24%). The minority students, 77 (11%) students spent four hours or more in the library. The amount of time spent in the library of less than one hour indicates that most users only attend the library briefly to return books or use copy facilities. Longer durations indicate study or perhaps social activities.

Table 6.3

Electronic resources used by students in the library

Electronic Resources	Number of Participants	Percentage
Databases	214	27%
E-journals	113	14%
Web resources	111	14%
Websites of non government institutions	96	12%
E-newspapers	76	10%

Others	55	7%
E-books	53	7%
Web sites of government institutions	43	5%
E-theses & dissertation	31	4%

Table 6.3 above illustrates the electronic resources used by students in the library and shows how information technology, as a library service, has improved. Most academic libraries provide a variety of electronic resources. The majority 214 (27%) of students utilise databases and 113 (14%) of students use e-journals, or 111 (14%) web resources. Websites of non government institutions are used by 96 (12%), while 76 (10%) read e-newspapers. Seven per cent read e-books and others, (55 or 7%) could not determine a resource used from the list provided. Only 5% (43) used websites of government institutions. The minority, (31) 4% of students accessed e-theses and dissertations. This may be due to the fact that a large part of the sample was from undergraduate students, therefore reducing the need to access theses/dissertations online.

Table 6.4

Purpose of library visits (multiple choices)

Purpose	Male	Female	Combined Total
Study alone	82%	76%	79%
Using computer for studying	61%	55%	58%
Borrowing & returning	39%	52%	45.5%
Group study	39%	44%	41.5%
Using printing and copying facilities	33%	46%	39.5%
Using internet for personal reasons	37%	29%	33%
Reading newspapers & magazines	11%	6%	8.5%
Relaxing	5%	9%	7%
Training	2%	3%	2.5%
Meeting people	2%	1%	1.5%

The findings in table 6.4 show combined totals for the various responses of students regarding the various activities or services they use in the academic library. The answers are multiple choices so the combined totals are percentages of the overall respondents of the questionnaires (792). The separation of results based on male and female aims to show cultural nuances in an Arabic country. The highest

response from users was studying alone in the library, with a combined total of 79%. Study is clearly the key use of the library for students. The second highest use was using computers for study. A noticeable difference in male and female responses supports a suggested difference in how Kuwaiti females choose to study. Kuwaiti females are believed to prefer to study at home, using books or copied material from the library. This is supported by the total of females who utilise the copy and print facilities in the library, compared to males. A large number of students sometimes use the library for social or personal reasons, such as using computers to access social networking sites, or meeting friends and socialising in the library. Study in the library is clearly the purpose for many students when visiting the library. This is supported in related studies by Gardner and Eng (2005), who found very similar figures (80.6%) with regard to studying alone in the library.

6.2.2 The Statistical Analysis of the Library Usage Variables

This study attempts to measure the correlation between independent and dependent variables. Independent variables are Information Technology, Collection, Facilities and Equipment, Training and the Library's Physical Environment, and dependent variables are students, academics and administrators.

The eighteen library usage statements were in the second section of the questionnaire. In Table 6.5, the researcher lists the counts of responses to all the eighteen statements. The high amount of responses in agreement indicates the attitude of the respondents about library usage is generally positive. About 75% to 85% of the responses were positive about library usage, and only 7% to 17% were negative. This could be taken as an indication of the high approval rate of library services although the scale of the statements is not about satisfaction with library services.

The reliability of the constructed scale for the PPP variables was investigated. The last ten statements on the questionnaire were about the level of academic performance from the students' perspective. These measurements are consistent and reflect the students' behaviours and perceptions. The extent to which the sum of these statements represents the individual statements is measured by reliability. In other words, reliability is a measure of internal consistency, and the best known method for estimating it is through a method called Cronbach's alpha.

Table 6.5

Counts of responses to library usage statements for students' data

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
IT1: IT devices are of high quality	32.65%	54.45%	8.26%	3.74%	0.90%
IT2: Online searching is easy on/off campus	26.42%	53.24%	13.34%	5.57%	1.42%
IT3: Satisfaction with library web page	24.02%	52.36%	15.92%	7.15%	0.54%
IT4: Library staff are helpful with IT	29.88%	54.08%	11.38%	4.53%	0.13%
Col1: Library resources are suitable	23.47%	53.59%	16.43%	5.74%	0.78%
Col2: Large amount of resources	23.47%	53.59%	16.43%	5.74%	0.78%
Col3: Resources are local and international	22.75%	51.50%	17.98%	7.08%	0.68%
Col4: Collection is continuously updated	23.07%	50.69%	18.37%	7.18%	0.69%
Fac1: Library facilities are suitable	27.95%	51.03%	13.33%	6.54%	1.15%
Fac2: Photocopying/ printing is satisfactory	27.03%	50.32%	13.38%	8.37%	0.90%
Fac3: Furniture is comfortable	28.23%	54.56%	10.25%	4.56%	2.41%
Fac4: Private rooms are accessible	29.57%	54.82%	10.41%	4.57%	0.63%
Tran1: adequate workshops on library use	22.51%	49.80%	15.55%	10.91%	1.23%
Tran2 :Staff are will qualified and helpful	25.94%	55.64%	14.79%	2.72%	0.91%
Tran3:Library provides suitable training	21.24%	49.68%	16.99%	9.91%	2.19%
Env1:Library is quiet and comfortable	29.57%	54.44%	11.04%	4.06%	0.89%
Env2:Opening times are suitable	29.95%	51.27%	9.52%	6.09%	3.17%
Env3:There are sufficient areas to relax	23.68%	38.16%	19.74%	12.76%	5.66%

As discussed in the previous chapter and from Table 6.5, five factors were formally defined as the sum of responses to the statement on the questionnaires corresponding to library usage factors. Because the factors are defined as sums of items on the questionnaires, it is important that we establish the reliability of the defined factors before using them in our model. Reliability of a factor depends on the number of summands involved in the sum with higher reliability for a larger number of summands. In this case, the study has used minimal or near minimal number of summands (three, or four, at most) to define the factors.

The responses in Table 6.5 demonstrate the wide opinions students have regarding all topics of library use. Many students feel the library's physical environment (*Env3*) is below standard (18.5%) when questioned about the library furniture and the library's opening times. The findings also show a large number of students are neutral to the question. The IT services (*IT1*) are regarded as the most satisfactory service within

the library and 87% of library users either agree or strongly agree with the question. The overall satisfaction is positive; with 78% of the respondents answering in agreeance range averages (51.5% agreeing, 26.5% strongly agreeing). These findings in satisfaction show that although the library is providing a good service for library users, there is still room for improvement.

Table 6.6

Reliability results for the library usage factors for students' data

Factor	Number of Variables	Number of Students	Cronbach's Alpha
IT Services	4	699	.711
Collection	4	684	.733
Facilities and Equipment	4	763	.731
Training	3	720	.69
Library's Physical Environment	3	757	.722

As Table 6.6 shows, the reliability of the defined factors ranges from questionable to good according to the classification of reliability values in Table 6.6. Notice that for the model, the regression model, the reliability of the factors is not important since they will be used only as predictors in the model, and hence their variability does not contribute to the random variation of the model.

All questions in the second part of the survey have been coded as S1 (=Question 1) to S18 (=Question 18). The scale progresses from 1=strongly agree, 2=agree, 3=neutral, 4=disagree, 5=strongly disagree and 9=no answer.

In section two of the questionnaire, statements S1 to S4 relate to the Information Technology in the library. S1 to S4 follow:

- S1: The IT devices (computers, internet, etc.) that the library furnishes are of high quality and speed

- S2: the service of online search is friendly and can easily be accessed on-campus and off-campus

- S3: the library web page is friendly and includes all the information that I need to know about the services of the library

- S4: when I have a problem using any of the IT services, I find all the help I need from the library staff.

Information Technology was significantly related ($p < 0.05$) to the PPP variables with an acceptable Cronbach's alpha of 0.711 for all four questions.

The researcher's aim was to achieve a minimum alpha of approximately 0.7 for all of the variables, and anything in excess of this would be highly regarded. Any alpha scores below this would be regarded as questionable.

A reliability analysis was applied to the student data using the statistical package PASW (formerly known as SPSS, version 18). The computer output shows that the value of Cronbach's alpha is 0.842 with only ten variables, which is considered good. The constructed scale consistently measures the outcomes of the educational performance process in a way that results in a low margin of error.

The area of the Library Collection focus on the following four statements:

- S5: I find all that I need of references and resources in the library

- S6: the library contains a large number of resources either as print or e-material

- S7: the library is subscribed to major local and international journals and periodicals in my field

- S8: the library collection list is continuously updated to include new trends in research and learning material.

As the study has shown, the library collection was significantly related ($p < 0.05$) to the PPP variables from S19 to S28 showing an acceptable Cronbach's alpha of 0.733 for all four questions.

The Library Facilities and Equipment centred on the following four statements:

- S9: the facilities and equipment (e.g. printers, photocopy machines, meeting rooms, etc.) furnished by the library cover all the basic study needs of the library users

- S10: the photocopying and printing services are accessible and satisfactory

- S11: there are enough multimedia rooms and presentation rooms

- S12: the study facilities in the library including study rooms, meeting rooms, seminar rooms, etc. are accessible and suitable.

As other variables mentioned before, there was a significant relationship ($p < 0.05$) to the PPP variables. Also, all questions about Facilities and Equipment showed an acceptable Cronbach's alpha of 0.731.

Library Training focused on the following three statements:

- S13: The library offers adequate learning opportunities to its users to learn about its facilities and services, e.g. via online courses, seminars, workshops, exhibitions, etc

- S14 the library staff are well qualified and they offer their expertise to library users whenever needed

- S15 the library provides trainings that improve my skills.

Library Training was significantly related ($p < 0.05$) to the PPP variables and had, moreover, a questionable Cronbach's alpha of 0.69 applicable to all three questions.

The Environment of the library related to the following three statements:

- S16 The library provides a quiet and comfortable environment for studying

- S17 the library is open for sufficient days at suitable hours

- S18 the furniture of the library including the desks, the chairs, and other supplies are fairly new and comfortable.

There was no significant correlation to the PPP variables with an acceptable Cronbach's alpha of 0.722 for all three questions.

In summary, only Library's Physical Environment was not significantly related to the PPP variables. The significance of the correlation could be increased through adding more items to each variable of the questionnaire. The Training section has been extended by another question (from two to three variables), which increased Cronbach's alpha from 0.65 to 0.69. This indicates that the addition of questions

generally results in another four independent variables which will increase the significance and alpha.

6.2.3 The Statistical Analysis of the Perception Variables

The last ten questions on all three questionnaires involved statements on outcomes of educational performance activities from students, academics, and administrators' perspectives. They attempt to measure the perception of personal performance. In this subsection, the researcher analyses these questions from the students' perspective.

It is clear students approve of the role universities play regarding perceived personal performance (PPP). The overwhelming majority of students approve the stated perceived personal performance of the universities based on their experiences. However, this is not the same as evaluating the actual achievement of the objectives in practice, but rather it aims to assess the attitude towards the implementation of the objectives. The former deals more with specific activities and is suitable for evaluating programs. The latter is more general and idealistic and is used whenever the questions are about objects or events that cannot easily be listed in terms of activities or specific behaviour. Therefore, the study might conclude that the students generally believe that their universities are helping them achieve their learning objectives. Table 6.7 represents the responses collected from student users of the library. The variables are PPP related and in general received positive feedback from students. St4 is aimed at student grades improving as a direct effect of visiting the academic library, which students responded with 81% positivity.

Table 6.7

Counts of responses to PPP variables for students' data

Variable	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
St1 – Training improves user critical thinking	33.76%	53.02%	8.09%	4.11%	1.03%
St2 – The library improves my studies	27.23%	61.03%	8.26%	2.97%	0.52%
St3 – I borrow items related to my study	27.58%	58.63%	11.47%	1.80%	0.52%
St4 – Visiting the library improves my grades	28.98%	52.13%	13.84%	3.88%	1.16%
St5 – I use library to find recommended books	28.81%	49.67%	16.95%	3.91%	0.65%
St6 – Most assignments require me to use library	25.77%	52.96%	15.98%	4.77%	0.52%
St7 – Training has improved my study skills	29.07%	52.88%	14.47%	3.20%	0.38%
St8 – I study in library with friends	28.09%	53.48%	14.56%	3.35%	0.52%
St9 – I use printing services in the library	30.43%	53.84%	12.28%	2.94%	0.51%
St10 – The environment is suitable for study	50.44%	34.82%	10.42%	3.68%	0.64%

Further analysis was carried out to evaluate the role of the ten variables in measuring the effect of the perceived personal performance process on the students by performing an item analysis on the ten variables. Table 6.8 lists a partial output of an item analysis performed on the ten PPP variables. The second column in the table shows that almost all ten variables have a correlation of 0.5 or above with the constructed scale. This implies that all the ten variables contribute significantly to the constructed scale. The third column gives the percent of total variation explained by each variable in the scale. Again, this implies all ten variables contribute considerable amounts of variation to the total variation in the scale. Finally, the last column shows that none of the alpha values, when the variable is deleted, are above the scale alpha value of .842. Furthermore, they are all close to the scale value .842. This implies none of the variables in the scale are poor variables and that all ten variables are equally good. As a result, the instrument for measuring the university educational performance outcomes from the students' perspective is reliable and consistent.

Table 6.8

Item analysis of the PPP variables for students' data

Statement	Corrected item – total correlation	Squared multiple correlation	Cronbach's Alpha if item deleted
St1	.481	.361	.833
St2	.606	.507	.822
St3	.628	.503	.820
St4	.579	.422	.823
St5	.556	.397	.825
St6	.512	.321	.829
St7	.577	.437	.823
St8	.544	.410	.826
St9	.513	.333	.829
St10	.403	.196	.840

6.2.4 Testing Research Questions regarding Students

This section addresses the research questions stated in Chapter 1 about presence and significance of the relationship between educational performance and factors impacting library usage. The relationship between students' academic performance and the five factors impacting library usage is investigated using the multiple regression model.

Following the strategy outlined in the previous chapter, the fit of the model was evaluated before looking at results. A partial output (using the statistical package PASW 18) is shown in Tables 6.6 and 6.8.

Table 6.9

ANOVA[a] table using multiple regression model for students' data

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2352.089	6	392.015	20.236	.000[b]
Residual	8949.727	462	19.372		
Total	11301.817	468			

[a]Dependent variable: Students. [b]Predictors (Constant): Collection, Training, IT Services. Facilities and Equipment, Library's Physical Environment

Table 6.9 presents results of ANOVA. The regression model is highly significant since the value in the last column is smaller than .05. This means that the

five factors collectively impact the dependent variable, students, which is the impact variable for students' data.

Table 6.10

Coefficientsa of multiple regression model for students' data

Factors	Unstandardised coefficients		t	Sig.	Collinearity statistics	
	B	Std. Error			Tolerance	VIF
(Constant)	9.441	.905	10.427	.000		
IT Services	.218	.104	2.093	.037	.622	1.608
Collection	.327	.095	3.457	.001	.651	1.536
Facilities and Equipment	.200	.097	2.059	.040	.672	1.488
Training	.452	.179	2.523	.012	.653	1.532
Library's Physical Environment	.097	.124	.782	.434	.701	1.426

[a]Dependent variable: Students.

Assumptions of the model, particularly the random error assumption were tested. Figure 6.5 shows the plot of the residuals against the predicted values after fitting the regression model. The points seem to be randomly scattered along a horizontal line at zero residuals, and therefore there is no systematic pattern in the data. There is some indication of non-constant variance of the data values. Figure 6.6 shows that the residuals fit the normal distribution curve reasonably; this is a basic assumption of the model. The best case scenario is therefore to accept the model fit even though the overall fit level, as measured by the R-Square value, is rather small.
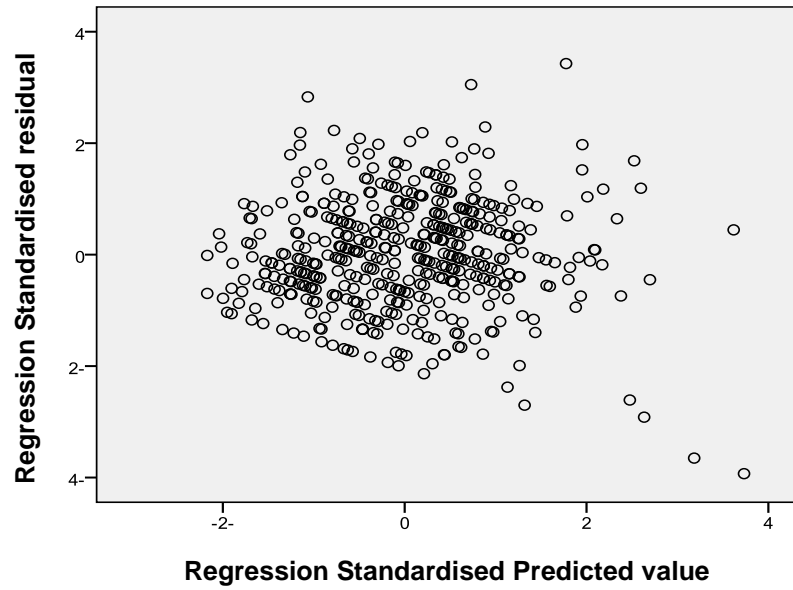
Figure 6.5 Plot of residuals vs. predicted values of the regression model
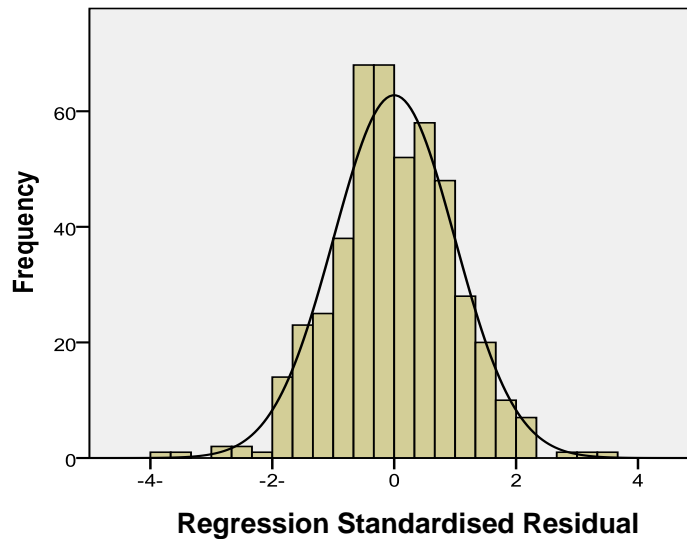
Figure 6.6 Histogram of residuals from fitting regression model with normal curve imposed

Table 6.6 contains research questions about the students relating to their library usage and educational performance. The presence and significance of relationships between the five factors and the educational performance impact for Students are shown in the fifth column of the table (under the heading sig.). Values in this column are below the 5% level. This indicates the corresponding factor has a significant relationship with the educational performance variables, and values above the 5% level indicate no such relationship. It can be concluded that all factors, except

Library's Physical Environment, have significant relationships with the impact variable of the students.

If a factor has a significant relationship with the PPP variable, then the corresponding value in the second column (values of B) is an estimate of its effect on the PPP variable. Therefore, the factor of training has the largest effect on the PPP variable (value .452), and the factor Facilities and Equipment has the smallest effect on the PPP variable (value .2).

6.3 The Statistical Analysis of the Academics' Data

Similar to the previous case, distribution of the sample with respect to several demographic variables is described. Demographic variables are reflected in the graphs for the sample with respect to five variables which follow:

- Distribution of academics from Kuwait Universities
- respondents by age group
- gender distribution of the academics′ sample
- frequency of library visits
- use of library resources.

The target sample sizes of academics from the three universities were 100, 25 and 25 for KU, AUK, and GUST respectively. Clearly, the sample sizes in Figure 6.7 come close to these figures with 92, 29, and 22 for KU, AUK and GUST respectively. The number of academics in these samples was selected proportional to the total number of academics in all the three universities. The number of academics in the college samples range from three, in some small colleges, to 34, for the college of Arts. There is also one college with only one academic. The reason for these large differences in the college samples was argued before, namely that the Administrative Sciences and Arts colleges are the two main colleges of AUK and GUST and that most of the academics sampled from these universities belonged to these colleges. Figure 6.7 gives a visual representation of the sizes of each of the samples from the three universities.
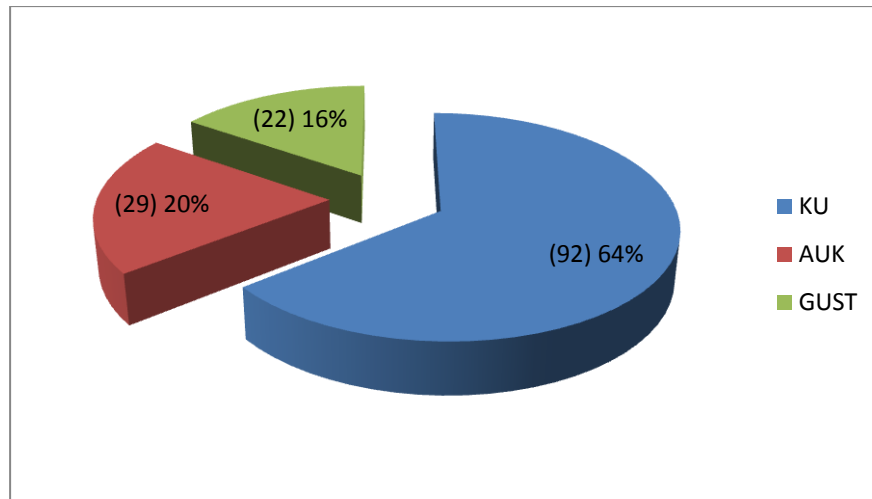
Figure 6.7 Distribution of academics from Kuwait Universities

6.3.1 The Statistical Analysis of the Demographic Variables

Table 6.11 describes the age range of the academic respondents. The majority, 47 respondents (33%) were between the ages of 41-50, 43 (30%) were between 31 and 40 years of age, 29 (20%) academics were between 50-60 years old, while just 24 (17%) academics were between 20 and 30 years of age. There are no academic respondents over the age of 61. Therefore, the majority of academics are between 31 and 50 years old.

Table 6.11

Respondents by age group

Age	Number of academics	Percentage
20 - 30	24	17%
31 - 40	43	30%
41 - 50	47	33%
50 - 60	29	20%
Over 61	0	0%
Total	**143**	**100%**

With regard to gender distribution of academics, table 6.12 shows that there are similar numbers of academics for both genders in the three universities with male academics slightly exceeding the female academics in number. The distribution of

the frequency of library visits shows that academics usually use the library when needed and not on a regular basis as one might expect from students.

Table 6.12

The gender distribution of academics' sample

Gender	Number	Percentage
Female	68	48%
Male	75	52%
Total	143	100%
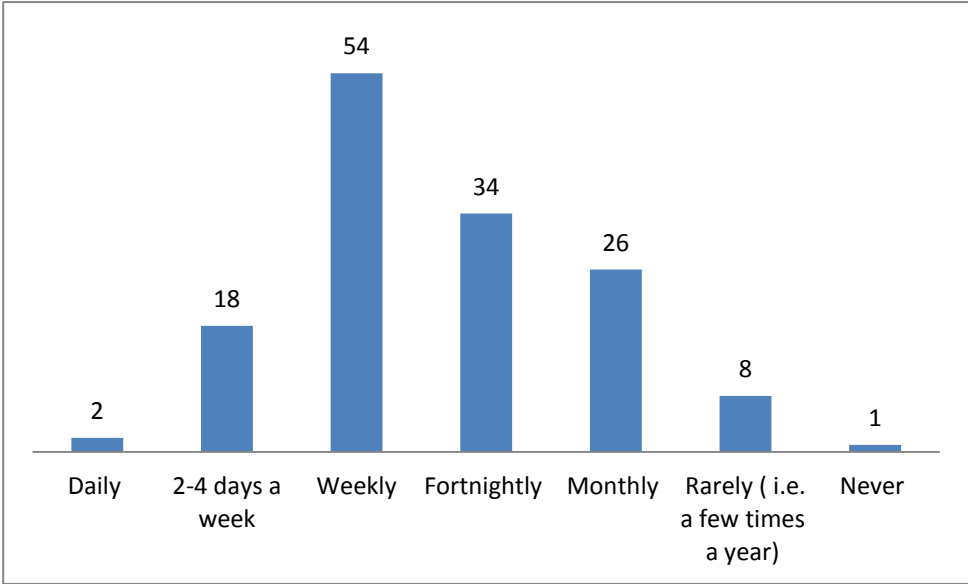
Figure 6.8 Frequency of library visits

Previous studies use frequency of library visits as an indicator to reflect the quality of library services. This study focuses on the variable of users; figure 6.8 shows the frequency of library visits by academics. The majority (54) visited the library weekly, while 34 visited fortnightly. Twenty-six academics visited the library monthly, whereas 18 were at the library two to four days per week. Eight academics rarely visited the library, using it only a few times per year. Two went to the library daily and one academic had never visited the library.

The majority of academics (114 out of 143) visited the library weekly to monthly. Therefore, their library visits are overall less frequent than the library visits

of the student sample (see Figure 6.4). This can be explained through their different position within the institution: academics can access some of the electronic resources from their offices (e.g. through their personal computers).

Table 6.13

Use of library resources (by Academics)

Library Resources	Participants' Number	Percentage
Journals	56	41%
Textbooks	30	22%
Databases	26	19%
Newspapers	6	4.50%
Government documents	6	4%
Dissertations	4	3.50%
Audio-visual materials	4	3.50%
CDs	3	2.40%
Other	2	1.60%
Reports	1	0.50%

The variable of 'use of library resources' by academics was chosen to depict how the library time was of value for academics as it differs from the student usage.

Table 6.13 shows that the majority of academics' usage was to read Journals (56 or 41%) and Textbooks (30 or 22%). Databases were also used frequently (26 or 19%), while Government Documents (six or 4%) and Newspapers (four or 4.5%) were used less frequently. Dissertations (four) and Audio-Visual materials (four) were similar in amount of academic usage (3.5%). Two academics, 1.6%, used 'other' library resources. The minority of academics used library resources such as CDs (three or 2.4%) and only one academic (0.5%) used Reports as a library resource. According to these findings, 82% of the academics prefer to use only three different types of resources: textbooks, journals and databases. Print publications such as textbooks and journals already make up 63% of this majority. Therefore most academics still prefer printed library material over electronic resources. Other resources, such as government documents, dissertations and newspapers, are less popular among the academics' sample.

Next, the reliability of our model variables was examined. As stated, the independent variables in this section are the same as those of the previous section, namely: Communication, IT Services, Collection, Facilities and Equipment, Training, and Library's Physical Environment. The dependent variable is different, focusing on a measure of the outcomes of the educational performance process from the academics' perspective. The sum (or average) of the ten PPP variables defining the educational performance process is defined as our dependent variable, which is called academics as opposed to students for the dependent variable of the previous section.

6.3.2 The Statistical Analysis of the Library Usage Variables

The questionnaire handed out to the sample of academics was identical to the students' questionnaire for the first two sections. It contained eighteen questions that were coded S1 (=Question 1) to S21 (=Question 18) on a Likert scale of 1=strongly agree to 5=strongly disagree and 9=no answer.

S1, S2, S3 and S4 are related to the IT Services of the Library. The results showed no significance to the PPP variables. A questionable Cronbach's alpha of 0.640 resulted across all four items.

The questions concerning the Library Collection (S5, S6, S7 and S8) had the lowest significance level to the PPP variables. For all four items, the Cronbach's alpha was acceptable (0.796) but close to a good level according to the classification of the table of alpha (see Table 4.4).

The items concerning Library Facilities and Equipment (S9, S10, S11 and S12) showed no significant correlation to the PPP variables. S9 was even less significant than the other three variables, which were similar. Moreover, the Cronbach's alpha of 0.688 was questionable for all four items.

S13, S14 and S15 looked at the Training component within the library. With a questionable Cronbach's alpha of 0.685, the independent variable was not significantly related to the PPP variables.

The Library's Physical Environment was tested through the questions S16, S17 and S18. The items showed the highest significance ($p < 0.05$) to the PPP variables.

The Cronbach's alpha was, however, the lowest result for this sample and with a value of 0.604, was close to a poor classification.

In conclusion, only one variable, Library's Physical Environment, was significantly related to the PPP variables. Collection was classified as acceptable on the Cronbach's alpha classification scale and reached values close to the good level. The remaining variables all attained questionable values.

Table 6.14

Reliability results for library usage factors for academics' data

Factor	Number of Variables	Number of academics	Cronbach's Alpha
IT Services	4	140	.640
Collection	4	143	.796
Facilities and Equipment	4	138	.688
Training	3	137	.685
Library's Physical Environment	3	140	.604

In Table 6.14 a number of results from the reliability analysis carried out on the five library usage factors have been listed. The table gives the values of the Cronbach's alpha, which is a measure of the internal consistency. They range from questionable to acceptable for the five factors, and this is expected in the light of the small numbers of items used to define the factors. The poor reliability of some of these factors would not affect our statistical analysis results in any significant way since the factors are only used as predictors in our model.

Reliability analysis was also carried out on the ten PPP variables of the academics' data. The value of Cronbach's alpha was found equal to 0.819 with only ten items. This value is considered good according to the classification in Table 6.16. The implication is that this variable in our regression model indicates that the outcomes of the educational performance process are being used confidently. Furthermore, the study ran an item analysis on the individual PPP variables in Table 6.15 to make sure they all contributed significantly to the definition of the dependent variable. Following the same guidelines as in the previous section, the conclusion

can be drawn that all the PPP variables are good and do not need to be modified or deleted.

Table 6.15

Item analysis results of the PPP variables for academics' data

Statement	Corrected item – total correlation	Squared multiple correlation	Cronbach's Alpha if item deleted
Acad1	.610	.514	.792
Acad2	.556	.550	.797
Acad3	.482	.401	.805
Acad4	.370	.204	.815
Acad5	.449	.271	.808
Acad6	.529	.385	.800
Acad7	.484	.366	.805
Acad8	.409	.223	.812
Acad9	.560	.391	.797
Acad10	.551	.371	.798

The data collected from the survey was analysed. In the study, a total of 143 academics were surveyed from all three Kuwaiti universities and from the different colleges. The response count for academics on the eighteen questions in the second section, and the correlation and Cronbach alpha results, are displayed in Tables 6.15 and 6.16. The impact of this variation in the views of academics on the use of the library services will be captured in the regression analysis.

Table 6.15 displays the correlations found within the third section of the questionnaires, and this correlation is relatively weak. The total correlation range was 0.5 which suggests there is some correlation, but is not conclusive. The squared multiple correlation range is 0.368, which suggests there is almost no correlation.

Table 6.16

Counts of responses to library usage statements for academics' data

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
IT1 – *IT devices are of high quality*	23.08%	56.64%	14.69%	3.50%	2.10%
IT2 – *Online searching is easy on/off campus*	14.69%	54.55%	19.58%	8.39%	2.80%
IT3 – *Satisfaction with library web page*	11.27%	59.15%	17.61%	9.86%	2.11%
IT4 – *Library staff are helpful with IT*	24.82%	54.61%	16.31%	3.55%	0.71%
Col1 – *Library resources are suitable*	15.38%	57.34%	16.08%	8.39%	2.80%
Col2 – *Large amount of resources*	16.08%	58.74%	15.38%	7.69%	2.10%
Col3 – *Resources are local and international*	13.99%	55.94%	17.48%	9.79%	2.80%
Col4 – *Collection is continuously updated*	12.59%	38.46%	14.69%	25.17%	9.09%
Fac1 – *Library facilities are suitable*	15.49%	46.48%	26.76%	9.15%	2.11%
Fac2 – *Photocopying/ printing is satisfactory*	18.57%	53.57%	20.00%	5.71%	2.14%
Fac3 – *Furniture is comfortable*	13.29%	62.24%	16.78%	6.99%	0.70%
Fac4 – *Private rooms are accessible*	22.54%	56.34%	11.97%	7.75%	1.41%
Tran1 – *adequate workshops on library use*	18.12%	48.55%	15.22%	15.22%	2.90%
Tran2 – *Staff are will qualified and helpful*	13.38%	64.79%	15.49%	3.52%	2.82%
Tran3 – *Library provides suitable training*	11.56%	67.35%	15.65%	3.40%	2.04%
Env1 – *Library is quiet and comfortable*	16.08%	66.43%	11.89%	4.20%	1.40%
Env2 – *Opening times are suitable*	18.31%	63.38%	13.38%	4.23%	0.70%
Env3 – *There are sufficient areas to relax*	11.35%	62.41%	14.89%	10.64%	0.71%

The findings in table 6.16 show the general responses to the questionnaires from the university academics. The overall satisfaction with the library facilities shows that 74% of respondents agree positively regarding services. This is 4% lower than the students' overall responses. This could possibly be because of the wider experience of academics who have studied in other institutions around the world. Academics regard IT services (*IT1*) highest with 80% positively agreeing. The lowest satisfaction (34%) regarding service was with the Library Collection (*Col4*) which is based on the frequent updating of the library collection.

Table 6.17

Counts of responses to PPP variables for academics' data

Variable	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Ac1:Library services are satisfactory	52.82%	21.83%	7.75%	11.27%	6.34%
Ac2:Library supports the curriculum	48.59%	29.58%	5.63%	8.45%	7.75%
Ac3:Library supports our research	45.45%	31.47%	8.39%	4.20%	10.49%
Ac4:University cannot function without library	25.17%	49.65%	9.09%	7.69%	8.39%
Ac5:I recommend students should use library	36.62%	36.62%	6.34%	13.38%	7.04%
Ac6:Library training has improved my classes	42.96%	28.17%	10.56%	9.15%	9.15%
Ac7:Training increases work quality/output	37.06%	34.97%	6.99%	11.89%	9.09%
Ac8:I visit the library for various reasons	34.51%	35.92%	4.23%	16.90%	8.45%
Ac9:The library database is a useful tool	41.96%	30.77%	5.59%	14.69%	6.99%
Ac10:The library and faculty collaborate	44.37%	27.46%	7.04%	10.56%	10.56%

Generally, the responses indicated positive perceptions on the part of academics to the personal performance.

Finally, the study investigates the research questions of this study stated in Chapter one regarding the relationship between academics' performance and the five library usage factors by means of the multiple regression model. With this model the study tests whether or not academics' performance depends on library usage factors, and if so, the study assesses quantitatively the extent of such dependency. Before using the model however, it is important to evaluate the fit of the model. The study applied the multiple regression model using the statistical package PASW 18. A partial output from fitting the model is shown in Tables 6.18 and 6.19.

Table 6.18

ANOVA [a] table using multiple regression model for academics' data

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	475.339	6	79.223	2.385	.033[b]
Residual	3754.128	113	33.222		
Total	4229.467	119			

[a]Dependent variable: academics. [b]Predictors (Constant):, Collection, Training, IT Services, Facilities and Equipment, Library's Physical Environment,

Table 6.19

Coefficients[a] of multiple regression model for academics' data

Factors	Unstandardised Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error			Tolerance	VIF
(Constant)	19.702	3.568	5.522	.000		
IT Services	.328	.273	1.200	.233	.742	1.347
Collection	.080	.253	.314	.754	.794	1.259
Facilities and Equipment	.200	.284	.705	.482	.897	1.115
Training	.226	.395	.573	.568	.875	1.143
Library's Physical Environment	.996	.383	2.603	.010	.807	1.239

[a]Dependent variable: Academics.

The ANOVA in Table 6.18 shows that the regression model is significant as the value in the last column is smaller than .05. This means that the five factors collectively impact the dependent variable, academics. However, the analysis of Table 6.19 reveals that only the Library's Physical Environment significantly contributes to the variation in the dependent variable due to it indicating a coefficient of 0.996. This implies that, of all the research questions about academics' interaction with library usage factors, the Library's Physical Environment interacts more strongly with academics' performance than other library usage factors.

In short, although there is a significant relationship between academic performance of academics and the five library usage factors, the relationship requires more attention and is only significantly strong with the factor Library's Physical Environment. In fact, the multiple correlations between academic performance in the university and the library usage factors are only .335. The low figure of .335 indicates that the university library does not have a significant role in impacting the educational performance as measured by academics' activities and performance. This is explained in further detail in the discussion chapter (section 8.3).

6.4 The Statistical Analysis of the Administrators Data

In this section, the study analyses the data contained in the 126 questionnaires completed by the administrators at the three Kuwaiti universities. Following the

same strategy as the previous two sections, the sample with respect to several demographic variables has been described, followed by a check of the reliability of the model variables. Afterwards, the results from the statistical analysis of the data have been summarised. Finally, the multiple regression model has been used to address the research questions about the correlation between library usage and perceived personal performance (PPP). Figure 6.9 shows the distribution of administrators included in the questionnaires. The majority of administrators (65%) were from KU, with AUK (19%) and GUST (16%) making up the rest of the sample.

Unlike the samples of students and academics, the administrators from the three universities are not fairly represented in this sample. The sample is predominantly made up of KU administrators and only includes a few AUK administrators and GUST administrators. The study intended to include administrators from the three universities proportional to their numbers in the three universities.

The under-representation and over-representation of certain sectors of university administrators also reveals itself at the departmental and divisional levels. For example, the deanship of colleges in the universities is the largest sector of all the administrators in all three universities. In conclusion, although the sample seems to lack fair representation of the administrators with respect to some demographics, the overall composition of the sample seems to have covered all the sectors of administrators in the Kuwaiti universities.
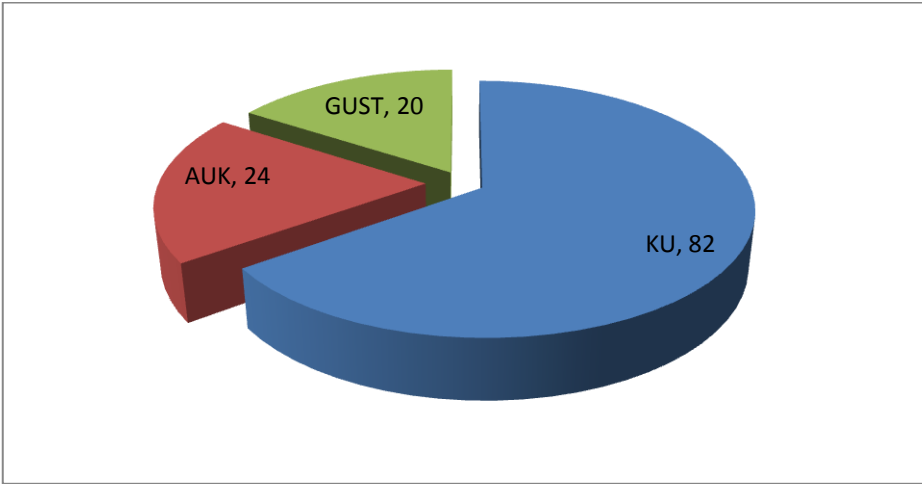
Figure 6.9 Distribution of administrators from Kuwait Universities

6.4.1 The Statistical Analysis of Demographic Variables

Figure 6.10 shows the nine departments that employ 126 administrator respondents from the three universities. The majority (26) of respondents were from the Administration and Registration Department, 18 were from the *S*tudents Activities Division, 17 respondents were from the Faculty Office, while 16 came from the Computer Centre. Fourteen administrators worked in Student Affairs, while eleven were from the Department of Libraries and ten came from the Cultural Department. Eight administrators worked in the Measurement and Teaching division and the minority of six respondents were from the Community Service Centre.
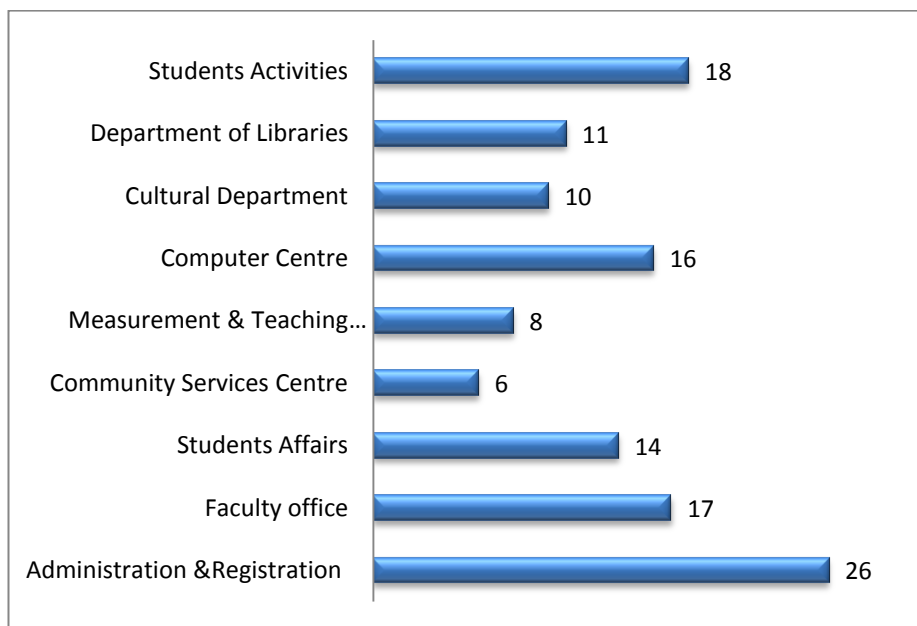
Figure 6.10 Distribution of responses across the departments and divisions

The study focused on any department that was related to PPP for students and faculty, especially those which invested more in the library due to their department's nature.

Table 6.20

Respondents by age group (Administrators)

Age	Number of administrators	Percentage
18 - 30	48	38%
31 - 40	32	26%
41 - 50	28	22%
50 - 60	18	14%
Over 61	0	0%
Total	**126**	**100%**

Table 6.20 shows the age group of administrators, which is one of the demographic variables. The majority of administrators (48 or 38%) were aged 18-30, 32 (26%) were 31-40 years old and 28 (22%) were between the ages of 41 and 50. Eighteen respondents (14%) formed the minority aged between 50-60 years old. Most administrators were relatively young (18-30) and no administrators were over 61 years of age.

Frequency of library visits/age

	18 - 30	31 - 40	41 - 50	50 - 60
Rarely/never	3	4	4	1
Monthly	8	11	8	8
fortnightly	13	6	5	5
Weekly	16	8	6	3
2-4 Per week	7	3	1	1
Daily	1	0	0	0
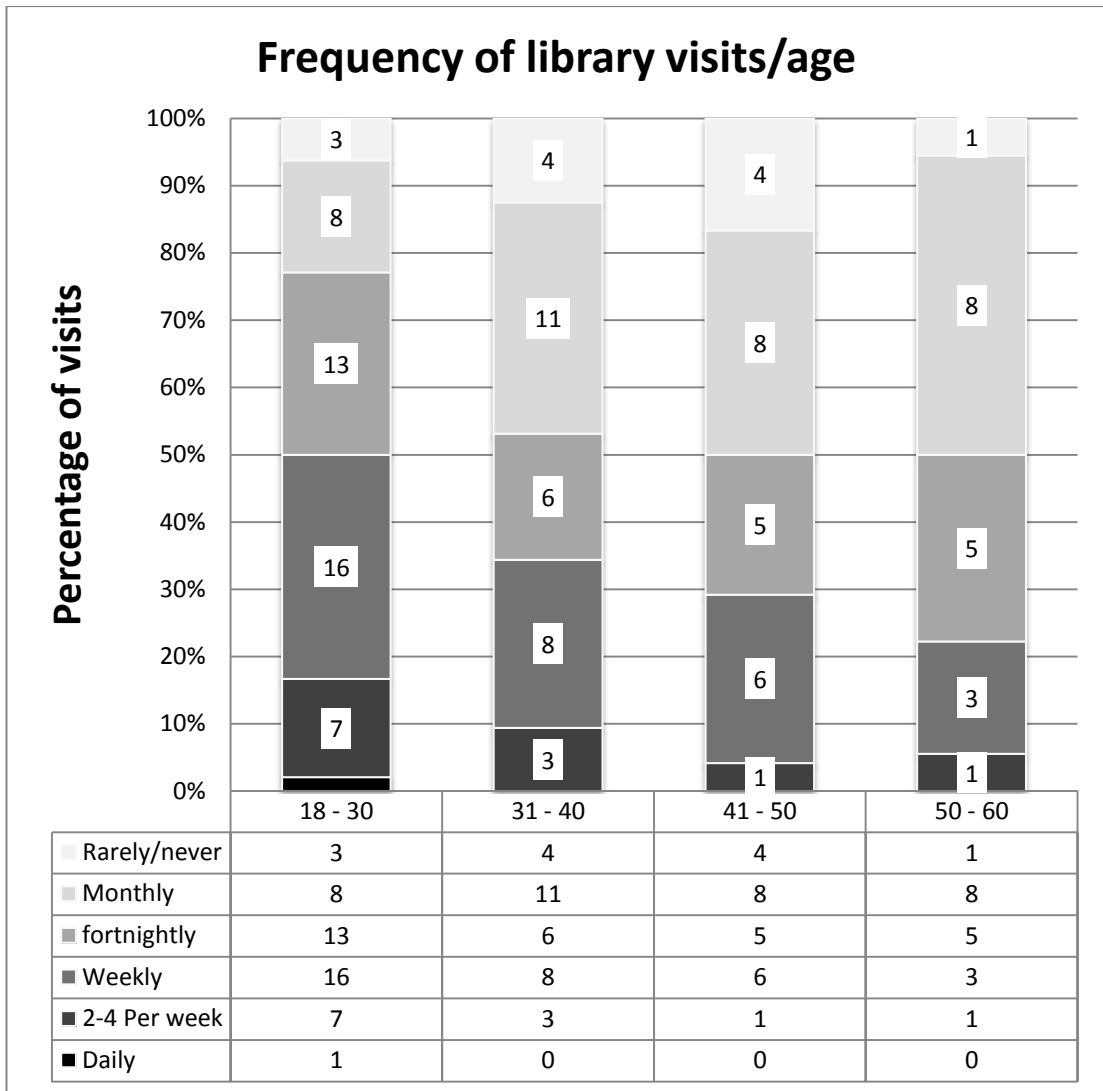
Figure 6.11 Frequency of library visits/age

Figure 6.11 shows the frequency of library visits made by administrators compared to the age of respondents. The majority of weekly users were between 18-30 and the only daily user was within the 18-30 age group. Age group 31-40 showed less usage of the physical library, however there was still a large group that visited the library weekly. Age groups 41-50 and 50-60 were the least frequent users of the library, with many stating they only used the library approximately once per month.

The independent variables used are identical to those mentioned previously, namely: IT services, Collection, Facilities and Equipment, Training, and Library's Physical Environment. The dependent variable, however, is the variable

administrators defined in Table 6.22, which measures the outcomes of the PPP process from the administrators' perspective.

6.4.2 The Statistical Analysis of the Library Usage Variables

The second part of the questionnaire for administrators was identical to the one conducted for students and academics. It contained 18 questions on a scale from 1=strongly agree to 5=strongly disagree and 9=no answer.

The IT Services items S1, S2, S3 and S4 showed significant correlation ($p < 0.05$) to the PPP variables. Nevertheless, the Cronbach's alpha reached an acceptable value of 0.752 across all four questions.

In contrast, the questions S5, S6, S7 and S8 about the Library Collection did not indicate significance to the PPP variables. The Cronbach's alpha was, however, questionable (0.687).

The Facilities and Equipment variables S9, S10, S11 and S12 were not significantly related to the PPP variables with an acceptable Cronbach's alpha of 0.667.

S13, S14 and S15, which concerned the Library Training, were not significantly related to the PPP variables. The Cronbach's alpha was on the acceptable level across all three questions.

The last items of the questionnaire, S16, S17 and S18, broached the issue of the Library's Physical Environment. With no significant relationship to the PPP variables, the Cronbach's alpha indicated an acceptable value of 0.685 for all three items.

In summary, only IT Services were significantly related to the PPP variables; this variable showed an acceptable Cronbach's alpha. The remaining variables were classified as questionable and non-significant.

Table 6.21

Reliability results for library usage factors for administrators' data

Factor	Number of Variables	Number of administrators	Cronbach's Alpha
IT Services	4	125	.752
Collection	4	126	.687
Facilities and Equipment	4	126	.667
Training	3	124	.663
Library's Physical Environment	3	125	.685

Table 6.21 lists the reliability results for the independent factors. It is noted that the reliabilities are different from those in Tables 6.6 and 6.15 for the students and academics although the factors here are identical to those before. There are several reasons why the reliabilities are different from those for students and academics. The reasons include different numbers of subjects in the samples, different characteristics of the three populations of students, academics, and administrators as well as the sample's representativeness of their respective populations. One suggestion was to use the pooled sample from all three samples of students, academics, and administrators to estimate reliability. However, this approach ignores the sample size effect on reliability for which reason it has been excluded.

The reliability value of the independent variables was computed from the ten PPP variables in table 6.21. The range value of Cronbach alpha was found to be .691. This value is considered close to acceptable according to the classification in Table 6.22, but due to the results being aggregated, the figure is acceptable. A reliability analysis by item analysis of the ten PPP variables to evaluate their role in defining the dependent variable followed. The results of this analysis are included in Table 6.23.

The interpretation of the results of the item analysis follows the same guidelines used for the interpretation of the item analysis results for student and academic data in the previous sections. Therefore, this section will not repeat them. The analysis indicates that only one variable out of the ten PPP variables that enter the definition of the dependent variable is significant. The fourth variable, library equipment is

valuable, modern and useful for students and academics - is questionable according to the three criteria described before and reflected in the last three columns of the table. These results suggest that this variable should be excluded from the defining equation of the dependent variable.

Table 6.22

Item analysis results of PPP variables for administrators' data

Statement	Corrected item – total correlation	Squared multiple correlation	Cronbach's Alpha if item deleted
Admin1	.714	.583	.729
Admin2	.383	.221	.772
Admin3	.462	.359	.763
Admin4	.094	.198	.801
Admin5	.307	.214	.781
Admin6	.499	.371	.758
Admin7	.410	.309	.770
Admin8	.551	.512	.751
Admin9	.450	.357	.765
Admin10	.613	.534	.742

Here, the responses of the administrators' sample over the 18 questions on library usage factors as well as the ten questions on the PPP activities are summarised. Similar to the previous cases of students and academics, the general attitudes on both the library usage and educational performance are positive.

Table 6.23

Counts of responses to PPP variables for administrators' data

Variable	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
***Admin1** – Library services meet user needs*	39.66%	28.45%	7.76%	12.93%	11.21%
***Admin2** –Library improves user PPP*	41.18%	25.21%	14.29%	10.08%	9.24%
***Admin3** – Facilities are useful*	49.11%	35.71%	5.36%	5.36%	4.46%
***Admin4** – Library equipment is modern*	40.00%	33.91%	6.96%	8.70%	10.43%
***Admin5** –The library requires more funding*	17.54%	19.30%	16.67%	25.44%	21.05%
***Admin6** – Library aids university goals*	43.97%	35.34%	6.90%	7.76%	6.03%
***Admin7** – Grades improve because of library*	38.28%	32.81%	7.81%	10.94%	10.16%
***Admin8** – Training improves staff efficiency*	34.13%	32.54%	11.90%	9.52%	11.90%
***Admin9** – Library is vital for the university*	34.40%	36.00%	12.80%	8.80%	8.00%
***Admin10** – Training provided is sufficient*	40.17%	35.90%	6.84%	9.40%	7.69%

Table 6.23 shows the responses of administrators with regards to the 18 questions within the questionnaire. The data is divided into five sections using the Likert scale. The most obvious result from this table is **Admin5** which has a fairly undecided response from participants. The question aims to determine if administrators feel the library needs more financial investment to make improvements, which some administrators agreed with and also a high number disagreed with or were undecided. **Admin3** (Facilities are useful) had the highest amount of positive feedback, as the question was very generic and easily adaptable to suit many scenarios.

Table 6.24

Counts of responses to library usage statements for administrators' data

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
IT1 – *IT devices are of high quality*	7.09%	72.44%	14.96%	4.72%	0.79%
IT2 – *Online searching is easy on/off campus*	9.52%	84.92%	3.97%	0.79%	0.79%
IT3 – *Satisfaction with library web page*	12.60%	70.87%	15.75%	0.79%	0.00%
IT4 – *Library staff are helpful with IT*	9.38%	78.13%	10.94%	0.00%	1.56%
Col1 – *Library resources are suitable*	9.30%	70.54%	13.18%	6.20%	0.78%
Col2 – *Large amount of resources*	7.75%	73.64%	9.30%	8.53%	0.78%
Col3 – *Resources are local and international*	7.09%	74.80%	10.24%	5.51%	2.36%
Col4 – *Collection is continuously updated*	4.65%	71.32%	16.28%	6.20%	1.55%
Fac1 – *Library facilities are suitable*	10.08%	72.09%	7.75%	10.08%	0.00%
Fac2 – *Photocopying/ printing is satisfactory*	10.08%	72.87%	11.63%	3.88%	1.55%
Fac3 – *Furniture is comfortable*	12.40%	74.42%	10.85%	2.33%	0.00%
Fac4 – *Private rooms are accessible*	11.54%	73.08%	13.08%	2.31%	0.00%
Tran1 – *Adequate workshops on library use*	6.40%	64.80%	16.80%	8.00%	4.00%
Tran2 – *Staff are well qualified and helpful*	9.38%	73.44%	12.50%	3.91%	0.78%
Tran3 – *Library provides suitable training*	10.16%	67.97%	14.84%	5.47%	1.56%
Env1 – *Library is quiet and comfortable*	12.40%	75.19%	6.20%	2.33%	3.88%
Env2 – *Opening times are suitable*	9.38%	80.47%	6.25%	2.34%	1.56%
Env3 – *There are sufficient areas to relax*	10.18%	75.19%	5.43%	7.75%	1.55%

The responses in table 6.24 are administrators' responses to the 18 general questions. Administrators agree positively with 80% of the questions regarding library services. This is the highest of the three groups and was expected due to administration's position within a university. The reason administrators agreed positively is because their jobs have a direct effect on the library facilities and the finance involved. Therefore it was expected administrators would answer positively

regardless of the library performance. The service with the highest level of satisfaction (95%) is (***IT2***) which is related to IT services which can be used outside of the library, such as databases and E-resources. The lowest area of satisfaction is library training (***Tran1***) which showed 12% of respondents disagreeing with the question. The general findings from administration are positive; however the results seem overly positive when compared with students and academics.

Finally, the research questions stated in Chapter one concerning the library usage interaction with the measurement of PPP from the administrators' perspective are analysed. As before, the multiple regression model has been utilised with independent variables and the library usage factors with dependent variables.

The ANOVA table in Table 6.25 shows that the model does not explain much of the variability in the administrators' ratings on the PPP objectives. In fact, the value for R-Square is only 0.164 which means that the library usage factors collectively explain only 16.4% of the total variability in the administrators' ratings on the PPP variables. The ANOVA table shows that this percentage of explained variability is barely significant at the 5% level. Another way to look at this result is through computing the multiple correlation coefficient between the dependent variable, on the one hand, and all the independent variables, on the other hand. The value of this correlation is .405, which clearly indicated poor relationship between the variables.

Table 6.25

ANOVA[a] table using multiple regression model for administrators' data

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	895.667	6	149.278	2.350	.040[b]
Residual	4573.042	72	63.514		
Total	5468.709	78			

[a]Dependent variable: administrators. [b]Predictors (Constant): Collection, Training, IT Services, Library's Physical Environment, Facilities and Equipment.

Table 6.26

Coefficients [a] of multiple regression model for administrators' data

Factors	Unstandardised Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error			Tolerance	VIF
(Constant)	18.110	7.571	2.392	.019		
IT Services	−1.766	.687	−2.571	.012	.588	1.701
Collection	−.033	.480	−.070	.945	.889	1.125
Facilities and Equipment	.587	.560	1.049	.298	.743	1.345
Training	−.178	.764	−.234	.816	.863	1.159
Library's Physical Environment	.090	.567	.159	.874	.893	1.120

[a]Dependent variable: administrators

By looking at table 6.26, it is noteworthy that only IT services contributed significantly to the dependent variables. This means that those administrators who tend to agree on the PPP also disagree on the adequacy of IT services in the library. In conclusion, it does not seem that library usage factors have much impact on the administrators' views towards achieving university objectives, such as improving PPP of students and academics. However, they do have different views on library IT services.

6.5   Summary of Findings

This chapter established several findings about library perceptions in Kuwait and the three academic libraries included in the study. The findings relate to each of the user groups of the academic library. Some findings were predicted and some were unexpected. An initial demographic finding from the analysis of the questionnaires was that a larger amount of females took the questionnaire than males. The questionnaires were handed out at random at the entrance of the academic library, to any student who entered the academic library. Of the respondents, 59% were female and 41% male, which could be explained by KU having a larger population of female students than male.

The primary finding from the questionnaires relates to PPP, how students perceive the library improves their personal performance. Table 6.7 indicates the

positive responses received regarding PPP and library usage, with the vast majority of students responding in a positive manner. *St4* (Does visiting the library improves your grades) had an 81% positive response from the 773 respondents to the question. This is supported by responses from question *St2* (The library has a strong impact on my studies), as users clearly feel the library has an overall positive effect on student study and grades. Academics felt the library had an impact on their PPP, with training provided improving the quality of their classes. Academics also felt their research improved due to using the library for material as seen in *Ac3* (Library supports our research) and *Ac6* (Library training has improved my classes)*.* Administrators' personal performance is measured on their ability to perform tasks efficiently and use their time effectively. Therefore *Admin2* (Library improves user PPP) and *Admin8* (Training improves staff efficiency) refer to PPP improvements from library training courses which help improve computer skills and teach users about new computer software.

The independent variables stated in the study are the five key services provided by the library which were believed to have an impact on user perceptions. Out of the five variables, four had a positive impact on user perceptions according to findings using multi regression. Library Physical Environment has no significance to user PPP, but students gave positive responses regarding the physical environment in their libraries.

The most common user of the academic library was found to be students studying social science, education or business (administrative science). These three groups made up a 54% majority of library users. One explanation for this would be the amount of books and reading involved in these types of studies, compared to design or practical based study.

A surprising finding of the study regarded the academic year of students who attended the library. In related literature it was stated that the main users of academic libraries were junior and senior year students, who on average attended in larger numbers than freshman and sophomore (Bridges, 2008; Simmonds & Andaleeb, 2001). However the questionnaire data revealed that freshman and sophomore students attended the library in greater numbers according to the 792 responses collected.

Findings regarding library use gave expected results, with most library users attending the library at least once per week. Previous studies have shown that once per week is the typical usage by university students (Jiao and Onwuegbuzie, 1997). Combined results collected for library visits of once or more per week was 68%. Academics' usage patterns were similar to those of students, with the majority of academics visiting the library once per week. Administrators were by far the least active users of the library, with the majority saying they visited roughly once per month, with many preferring the online library.

Library usage also revealed the duration of typical library visits. The largest response to duration of library visits was one hour or less. This indicates that many students make short trips to the library for collecting or returning books or using copy and print facilities.

The questionnaires revealed that the majority of library users attend the library for study, either alone or using computers for study. Studying represents the biggest majorities respectively (79% studying alone and 56% using computers for study). Several differences in results occurred between male and female responses, but the biggest difference was the pattern in study, with males utilising the library for study to a greater extent than females. Females however use print and copy facilities to a far greater extent than males, which supports the theory of Kuwaiti females preferring to study at home. A large percentage of users of the library used it for personal and social reasons, with 33% saying they used computers for social networking or personal reasons. Library use by academics was primarily to use journals for research or for lecture notes. Related studies suggest the positive impact e-material has on academics' research, with Meho and Haas (2001) stating that 90% of academics interviewed had used e-materials in writing research papers. In relation to this, it was found that academics have the lowest satisfaction of users regarding the collection. Academics were not entirely positive regarding the relevance of some collections and the frequency with which collections are updated (see table 6.16).

Funding is a key topic regarding academic libraries, so during the questionnaire stage, administrators were asked their opinion on the funding the library receives. There was no general consensus. Almost half agreed the library should receive more funding and the other half believed the library had enough. This could be due to

administrators having different positions in the university, some with inside financial knowledge regarding the library and some without this information.

6.6   Conclusion

This chapter has analysed the data collected through questionnaires which were completed by the three user groups of Kuwaiti academic libraries. The results of these open ended questions were analysed to support the research questions and objectives, and also to uncover the true perceptions of the services provided in Kuwait. The questionnaire data was displayed in a variety of tables and graphs to depict the findings. The data has uncovered various findings on how users perceive the library and its services, as well as how male and female users differ in their library usage.

The following chapter analyses interview data which was collected from the three user groups via phone interviews. The results of the interviews are explained and used to support the research questions.

Chapter 7: Interview Findings

7.1 Introduction

The aim of this chapter is to describe and analyse the qualitative data of the study. The qualitative data relates to the responses to the interview questions asked of the students, academics and administrators. The purpose of this interview information is to validate and further elaborate on responses received from the questionnaires. Interview questions focused on the correlation between library usage and personal performance. General questions asked of all three groups were regarding overall library services, following this; specific questions were then asked regarding each of the groups separately. The interview questions elicited a wide range of responses including student evaluations of different library services, strengths and limitations of library training availability, efficiency and effectiveness. Faculty responses focused on library services in relation to students and the collaboration between academics and librarians. Administrators were questioned regarding the roles of the library and how educational performance was affected.

The interviews resulted in a more thorough understanding from each group's responses, and also filled in gaps left from the questionnaires. The interviews were designed after the questionnaires specifically to help support the questionnaire findings. The interviews are used later to further support the questionnaire data gathered, and also to refine the FALU model.

7.2 Description of Data

The data was gathered between April 11th, 2010 and June 22nd, 2010. The research data combines the results of 42 interviews with students, academics, and administrators from three universities. The following table gives an overview of the participants involved in the interview stage of the study. Table 7.1 shows factors such as gender, group, university, faculty and duration of interview. Interviews were conducted in Arabic, over the phone and results were translated into English afterwards.

Table 7.1

Interview participants overview

No.	Date	Participant	Gender	University	Faculty/School	Time
1	11-April-10	Student	Male	KU	Education	35 Min
2	11-April-10	Student	Female	KU	Education	28 Min
3	13-April-10	Student	Female	KU	Law	42 Min
4	13-April-10	Student	Female	KU	Law	26 Min
5	14-April-10	Student	Male	AUK	Arts & Sciences	33 Min
6	15-April-10	Student	Female	KU	Science	40 Min
7	18-April-10	Student	Female	GUST	Business & Admin	38 Min
8	18-April-10	Student	Male	GUST	Business & Admin	41 Min
9	19-April-10	Student	Female	KU	Medicine	26 Min
10	21-April-10	Student	Female	KU	Engineering	33 Min
12	25-April-10	Student	Male	KU	Engineering	40 Min
13	25-April-10	Student	Male	AUK	Arts & Sciences	35 Min
14	26-April-10	Student	Female	AUK	Business & Economics	43 Min
15	26-April-10	Student	Female	GUST	Business & Admin	28 Min
16	29-April-10	Student	Male	GUST	Arts & Sciences	43 Min
17	02-May-10	Student	Female	KU	Pharmacy	30 Min
18	12-May-10	Student	Female	GUST	Arts & Sciences	33 Min
19	12-May-10	Student	Male	KU	Pharmacy	42 Min
20	14-May-10	Student	Male	AUK	Social Science	29 Min
21	17-May-10	Academic	Female	KU	Pharmacy	32 Min
22	17-May-10	Academic	Female	KU	Women	35 Min
23	19-May-10	Academic		GUST	Arts & Sciences	41 Min
24	20-May-10	Academic	Female	KU	Women	28 Min
25	25-May-10	Academic	Male	GUST	Business & Admin	34 Min
26	25-May-10	Academic	Male	KU	Admin Science	38 Min
27	26-May-10	Academic	Male	GUST	Arts & Sciences	37 Min
28	28-May-10	Academic	Female	KU	Education	42 Min
29	29-May-10	Academic	Female	KU	Medical Sciences	39 Min
30	29-May-10	Academic	Male	KU	Law	25 Min
31	30-May-10	Academic	Female	KU	Arts	33 Min
32	05-June-10	Academic	Male	KU	Arts	37 Min
33	07-June-10	Administrator	Female	KU	Engineering	27 Min
34	07-June-10	Administrator	Female	KU	Admin Sciences	42 Min
35	10-June-10	Administrator	Female	GUST	Arts & Sciences	40 Min
36	11-June-10	Administrator	Male	KU	Admin Sciences	34 Min
37	15-June-10	Administrator	Male	GUST	Business & Admin	29 Min
38	16-June-10	Administrator	Female	AUK	Social Science	33 Min
39	18-June-10	Administrator	Male	AUK	Social Science	28 Min
40	18-June-10	Administrator	Male	KU	Science	44 Min
41	20-June-10	Administrator	Female	KU	Admin Science	42 Min
42	22-June-10	Administrator	Male	AUK	Social Sciences	39 Min

Note: Admin refers to administration

The collected data includes 132 textual comments alongside responses to demographic questioning. Comments range from broad answers of around 110 words to more general, average length comments of about 70 words, through to shorter text fragments of around 30 words. The more extensive comments make up 30% of the total, with 40% of the total consisting of average length comments. Between two and eight comments were taken from each participant's interview. The emphasis of each individual comment, and the length of the response, highlighted the aspects of importance to the participants and their level of feeling toward the matter.

As would be expected, the majority of participants commented on their immediate role within the libraries. The students focused on an evaluation of how the library services helped with their own studies. Academics commented on how the university services aided their teaching and publishing, as well as their collaboration between faculty members and librarians. Administrators tended to talk about the relationship between the university and the library to support the university in achieving academic objectives.

The majority of comments focused on participants' perception of, and the response to, the five independent variables. Student comments identified how the independent variables helped them in their studies, which were most effective for their particular area of study, and how they rated the quality of the services. Academics argued their opinions on how the library services assisted their students, as well as how the library helped their own needs in implementing and running their programs. The main concern for administrators was their vision for the libraries - their current effectiveness - and how this could be improved to ensure that the library contributed to achieve the university's goals.

The largest number of comments focused on the student evaluation of the different library services based on several independent variables in the FALU model. For example, the first question asked participants to consider the strengths and limitations of library training, including the information literacy programs. They were also asked to focus on the availability, efficiency and effectiveness of the library's communication and information technology.

The second largest number of comments was received from academics and focused on library services in relation to their students, then moved to their concern over the collaboration between faculty members and librarians.

Most comments regarding library services were positive from the students, faculty members and administrators. Since the completed questionnaires already indicated these positive feelings, the participant groups were expected to show the same attitude in the interviews. Although administrators were concerned about the collaboration between administrators and librarians, they provided positive feedback regarding library services in their interviews.

7.3   Analysis of Data

This section describes and analyses the qualitative data of the study including transcripts from interviews with students, academics and administrators of KU, GUST and AUK Libraries, which have been translated to English. The interviews provide an additional source of data that might not necessarily be determined through the questionnaire. Open ended questions in a semi-structured interview allowed participants to talk freely about their library services and university. This technique is therefore used to collect qualitative data in order to complement and enrich the quantitative data. Interview transcripts highlighted that most interviewees spoke candidly and openly about user perception of university library services and the relationship between library and educational performance. The various aspects raised through the research will be analysed under different themes in the discussion chapter. These are also used to refine the FALU model.

The interviews for all participant groups followed the same structure, with small variations in the wording of questions. Each interview began with two common questions about the participant's overall perception of their university library. The five or six further questions were more specific and focused on the independent variables, which were vital in the measurement of library performance, as identified by the FALU model.

7.3.1 Value of Academic Library to Users

Academic libraries have high maintenance costs and the library's value is often questioned regarding its use within the university leading to the question: *as a*

student do you think that you could complete your degree without making use of any library services?

The majority of students stated that the library is a vital service provided by the university and they would have a great deal of difficulty in completing their degree without it. Some stated they would not attend a university without a physical library.

> *"I often need to use the library for a variety of reasons, so the thought of not having this service available would have a detrimental effect on my study. I feel there is a definite need for the library and I feel that I would not attend a university without an adequate library. I can't stress enough how vital the library is to myself and many of my study friends."* (St5G1)

> *"I have spent many hours in the library during my degree; it feels like a second home to me. Not only do I use the computers for study and relaxing, but the library is a great place to revise for my examinations as it's far quieter than my home. I really do not think I could have got this far with my degree without making use of the library. It is by far the best facility the university has to offer."* (St7G1)

> *"I attend the library fairly frequently, but the main purpose of my visits is to make use of the collection. I have attempted to study by using just internet resources and I found it extremely difficult. That is why I feel the library is vital as the collection is far superior to anything I can find online. I do not think I could pass my units without the quality information that I can get from the library. Without these resources I think it would be impossible for many students studying technical qualifications to pass their degree. "* (St15G1)

Of the 20 students interviewed, only three gave negative feedback regarding the library value. The respondents stated that technology within the home met all their educational needs.

> *"I have not been to the library since the first few weeks of my degree two years ago. I feel that the library offers me nothing that I cannot access from home. The library material is difficult to access and*

normally out-dated or irrelevant. The internet is the main source of all my study and I find my home is far more comfortable and better suited for study than my academic library. The library is of little use to me." (St11G1)

"My specific library branch is out-dated and offers me nothing with regards to my study. I have been here a few times and have left disappointed each time. After today I do not think I will be returning for some time as I have found no books which I felt I could use for my study. The internet is by far a better way to complete my assignments; I do not even have to leave my home which is the best part. I feel that the library is a drain of resources for the university if I am being honest." (St8G1)

"I do not come to the library very often but when I do I normally just use the copy facilities. I copy some pages from the physical collection which are related to my study and return home. I can find this information on the internet normally but I do not have a printer at home and I like to have hard copies of material to make notes on. I could complete my studies without coming to the library, it's really not an important service for me, and other than the printers and copiers I do not see what value it adds to my study." (St2G1)

Academics were asked a similar question regarding the value the academic library has to the university. The question asked was: *As an academic could you imagine a university functioning without an academic library?*

The majority of academics stated that the library is a vital service for any university to have. Eleven of 12 academics responded in a positive manner to the role the library plays.

"The academic library is an important piece of the educational puzzle, without it many students would struggle tremendously to pass their degree. I personally use the library a great deal so to me it is of importance too. The databases are comprehensive and help me with my writing and research I

carry out. The idea of a university having no library is ridiculous and I support the academic library 100%."(Acad7G1)

"I use the academic library now and again, I know a great deal of my students study there. The academic library and the quality of the collection makes my life much easier when it comes to lectures as my students can grasp any theories I'm teaching easier as the library supports my teachings. I can't imagine many of my students would pass their assignments without the academic library." (Acad5G1)

"I do not use the library often, but the idea of no university library is ridiculous. The library is used by a wide variety of users, and the community. A university without a library would not be able to attract as many new students and highly qualified academics would not want to teach in an institution without a library. The library may have high running costs, but the library is priceless for what it gives to the users." (Acad10G1)

The one negative response was:

"Academic libraries are an expensive commodity for universities to have. Digital collections are clearly the way forward, and the sooner people realise this, the better. I use many of the digital resources the library provides from my office and don't visit the library. The money spent on maintaining a huge building like a library could be used on improvements to various faculties within the university which require investment." (Acad10G1)

Administrators responded positively, with many stating similar ideas such as:

"I feel the library is a valuable asset to the university, which is why it is constantly receiving funds to improve the collection and services provided. Personally I don't attend the library frequently, but I like to relax in the library sometimes with a magazine or to read the international newspapers." (Admin7G1)

7.3.2 Library Impact on User Performance

Discovering what impact academic libraries have on student performance is of vital importance to many universities, additionally it is of vital importance to the current study. The following question aims to answer what impact the library has on

students' grades: *Do you feel that the library has an impact on your overall academic performance regarding your grades?*

The majority of responses were positive, with 14 of 20 students replying in a positive manner. Most of the responses were based on the library being a suitable environment compared to the home, and therefore making study easier.

> *"The library is a good place to study and it gives me satisfaction in coming here and studying for several hours as I feel it helps gain a better understanding of my subject. I come here to revise for examinations as there is no temptation to do other things here like watch television, so this is the only place I don't feel distracted when revising. As far as improving my grades I don't know, but it has a positive impact on my confidence before an exam which is vital as going into an exam worried is a terrible feeling to have."* (St13, G2)

> *"I used to have some trouble with studying at my home in the past as I have a big family. This year I decided to spend my study time at the library rather than at home, and it is having a positive effect on my class performance. Before I used to feel like the teachings were going over my head, but now I have a better understanding of what I am learning as I re-read class notes after the lesson in the library. This is helping me improve my assignment grades, before I was getting D at best, now I am pushing for C and some B's so I'm delighted with the impact it's having."* (St14, G2)

> *"I think the library has an effect on my grades yes. I cannot complete my assignments without coming here so the impact would be if I did not come here I would fail. I think that is quite a considerable impact as I really do feel the library is vital for me to complete my degree. I revised at home for a few of my first exams and found it difficult to study for any period of time as I became bored or confused. I now revise as a group with my friends and some of my grades have improved this year in my exam results."* (St19, G2)

There were six negative responses to whether libraries have an impact on grades, with the responses being focused on students seeing no difference in their performance studying at home or the library.

"The library is a nice place to study, but I feel it has no impact on my overall grades. I use the library now just to use the computers and print facilities when I am printing my assignments, but I used to study here often. I have read almost all the books on my study, and the collection has not changed since I first came here. I see no difference in my grades from studying at home or in the library, so I choose to study at home now." (St6, G2)

"I would like to think the library improves my grades, but when I visit the library it is impossible to find a computer to use. So there is no improvement in my performance as I can't use the one service I need when I attend the library. Personally I feel the library would not improve my grades if I studied there or if I studied at home. The environment does not change the person, I'm not a smarter person if I'm sitting in a library rather than sitting in my home." (St9, G2)

Academics were given a similar question regarding how the library improves their personal performance or knowledge. The question was: *Do you think the library has an impact on your teaching; does it improve the quality of your lectures?*

The majority of academics were positive regarding the personal impact the library has in relation to their performance. Most of the responses were based on how the library helps them with research and paper writing which they partake in.

"I use the library from time to time when I am writing a research paper or book. The library databases are a good way to find historical information which is difficult to find on the internet. I feel I am still learning even at my age so the library is one way I learn a new fact or two when I'm reading historical documents." (Acad2, G2)

"The library training courses have helped me within the classroom; therefore it has improved my lecture quality. I feel I am not always up to date with the latest technological advances, so the PowerPoint training helped me come into the 21st century with regards to teaching methods. I think my students appreciate the use of the occasional slideshow as I imagine listening to someone for any period of time is boring." (Acad4, G2)

The negative responses towards the library improving personal performance were based on collection and training.

"The library offers me personally very little with regards to my performance. The collection is very limited in my field and I have purchased many of the books I require out of my own money. The library gives enough information to students, but when it comes to writing papers and PhD level students I feel it offers them very little." (Acad6, G2)

"I have inquired within the library about training in various computer courses which I have difficulty with, but the training on offer is very basic or not the type I require. This training would improve my class quality as I feel I am out of touch with some of the computer programs used by the students. And the collection offers me no instruction in using these programs so to be honest the library has no impact on my performance." (Acad10, G2)

7.3.3 User Satisfaction of Library Services

User satisfaction is high within the current study and this section covers the research question: *What are the perceptions of academic library users towards library services in Kuwait?* In addition to this it covers the objective: *To determine the library satisfaction of students, academics and administrators.* All areas of the independent variables are covered under satisfaction of library services.

The majority of students reported they were satisfied with the services their university library provided. Overall, students felt that the collections and information and communication technology of their library were sufficient in helping them to complete their research and studies.

"I come to the library about twice a week, sometimes more. The opening times are good for me as I have free time during the day meaning I could come here every day if I wanted. As far as I'm concerned my university library always provides the latest technology to support students in their studies. The resources and tools help to extend our knowledge and understanding which satisfies our academic needs. I'm quite happy with its services as they support us in achieving our goals." (St13, G3)

"I pop in the library almost every day. It is very organised and quiet and that helps me to concentrate whilst also allowing me to enjoy studying at the same time. The furniture is pretty new and comfortable, and the staff are helpful. I particularly like the fact that there are specific signs for every section so we can access specific resources quickly and efficiently. It also means that we don't get lost!"(St15, G3)

Two out of 20 students found a problem with some service aspect of their university library although this was usually considered alongside some positive contributions.

"The services of my branch library (Education library) are rather good as there is a sufficient number of staff to handle the amount of people entering it. One problem I may have with the layout or design of the library is that they don't have specific signs up for certain categories of books which make it more difficult to locate the resources you are looking for. Our branch library is smaller than the central library which has better signs and it's far easier to find specific information in the central library." (St14, G3)

"I would say that our library has several types of information resources available which is quite good but the one problem I have faced is that the layout is a bit messy and crowded. It takes a long time to find the resource you need and so you end up wasting time. The library feels too small for the amount of books and furniture which it houses. I prefer more personal space when it comes to study, but personal space seems to be a premium in our library. If the library considers this point, then it will be a far better place to study." (St3, G1)

Academics were used as participants in the collection of the research data as their role in universities suggests they should have a strong link with their library. They are responsible for organising and supporting students in their studies, for whom the main source of information needed to study, will be found in the university library. Additionally, the academics tend to stay at a university for long periods of

time, certainly in comparison to students, and therefore have a wider view of the library and its services. As a result, the opinions of faculty members and academics are very important in library performance research.

In terms of university library services, two out of 12 academics responded positively in terms of student satisfaction, excellent collections in differing formats, and the provision of computers and internet access.

"I think the library services meet our needs. In general, the library services provide suitable resources for the college of administrative sciences. The librarians understand what faculty members require from the library, the library provides a range of services, the policy of borrowing items is easy to follow, there is an online catalogue available, and there are facilities for printing and photocopying." (Acad1, G1)

"I think the library services provide an attractive study environment with specified study areas for all users and high quality resources which provide most students with what they need. In particular, there is access to a large collection of print and digital materials which is useful for my lectures, and I can present digital material on the projector for my lectures." (Acad6, G1)

"The library provides an array of information and services in a variety of formats. I particularly like the digital collections as they are easily accessed and can be saved to my desktop computer. One of the most important services of our library is the provision of online access to the library catalogue for the library collection and database, and the staff are very helpful when I'm having difficulty finding resources." (Acad9, G1)

However, the five negative responses focused on the need for a general improvement in libraries, demanding regular updating of resources and collections, and increased support from university leaders.

"I can see that the university library services need more improvement because the last changes were made about five years ago. In

particular, the library requires an updating of digital materials and online services to match the developments made in recent technology, and for training to be provided for the use of the new technology. I think we are behind with regards to new technologies compared to western universities, and this needs to be addressed in order to increase our reputation worldwide." (Acad3, G1)

"Our library (Medicine Library) is too small, when I compare it to the library at the university where I studied my degree in America. Also, as we are teaching medicine, we require new resources all the time as new discoveries and developments are made every day and it is very important that we have the latest, most up-to-date resources, as the medical world is changing at a rate which the library is failing to keep up with. Digital resources are the fastest way to keep up to date with medical developments, so this is one area which should be invested in." (Acad5, G1)

Administrators were interviewed as one of the three participant groups as they tend to have a powerful influence over the provision of library services and it was interesting to hear their personal opinions regarding their libraries. Their comments, from different departments at three different Universities, illustrated positive views of each library.

"I think the library provides high quality services with access to large collections of both print and electronic resources. The university encourages the library in the development of its services as it recognises the importance the library holds in supporting students. Many students use the library as their primary place of study." (Admin10, G1)

"The library services meet the needs of the users, especially the students. *I believe that the university* administrators *do their best to make the library services as efficient and effective as possible. They do this through dedicating a specific budget to the library, which is increased each year, with the sole purpose to improve services. This*

investment can be seen throughout the library, with new technologies implemented and modern furniture." (Admin1, G1)

"According to the yearly report of the university, it appears that the library services are meeting the information needs. I see that the library also provides users with the opportunity to study alone or in groups thanks to the separate meeting rooms and designated study areas. In addition, the large and varied collections provide students and staff with an array of resources. The digital collection is vast and many users are benefiting from the digital collections." (Admin2, G1)

"GUST library is considered a new library, having only been open for around six or seven years. The collections are quite small, but more than enough to cover the resources required by the courses of the university. In my opinion, the library provides good services for all users. Due to the library being relatively new, the design and furniture make a pleasant environment to study in." (Admin8, G1)

Only one administrator's comment was negative:

"When you compare our library with those, say in America, our collections are much smaller and we have fewer computers. Also, libraries in some other countries tend to up-date their collections and services far more regularly than we do, which could have a negative effect with regards to foreign students coming to Kuwait to study. The digital collections need to be expanded and kept updated in order to be relevant with all current studies." (Admin4, G1)

7.3.4 Preferred Use of Information Resources

This section aimed to find out the preferences of library users with regard to information resources. Information resources are a learning aid; therefore this section helps support the research questions: *What type(s) of information resources would be most useful for your assignments and research? Which factors of library use are significant for users, and which areas/services require improvement?*

Students made up the majority of participants in this study and the research investigated the preferred use of information resources of this group, undertaking

interviews with undergraduates, post-graduates and students following online courses.

Over half of the students (11 out of 20) stated that their preferred source of information was books. Participants suggest that they found books easier to use and more applicable to their university studies.

"Books are my favourite as they are a sustainable resource of information and I enjoy reading as well. I trust the information of books because they contain the valuable experiences of the writer. Books are quick and easy to access and I can keep it in my bag, and use it whenever. The library has relevant and new studies which are relevant to my course. Books give a better description of subjects compared to journals, and this is useful for self-learning as the descriptions books give are far clearer and easier to follow." (St13, G2)

"Books are much more helpful compared to other resources, such as electronic resources. I like to rely on books because most of the time they refer to the correct and right information. The books I have used are all fairly new and relevant which is good as my topics require modern data and studies. I always take several books for a topic of study, and read several different authors' opinions on a subject. Also, my teacher tends to give us books on our suggested reading lists." (St1, G2)

"Many of the texts I usually look at when in the library are newspapers and books – in particular, biographies and autobiographies. Biographies and autobiographies are of great interest to me as I like to read about other people's lives and how they overcome obstacles in life. The books are up to date and there are many new biographies which arrive in the library. The main reason I look at these selected types of books is because they are the most useful in finding information quickly and effectively for my research-based assignments." (St14, G2)

Eight of the 20 participants identified that they used their library website, and five used this exclusively their only information source, while the other three also used books.

> *"I start with the library's website to search for, and link me to, resources relevant to my assignments. After that, I will then use the books or journals suggested. What I use the most will depend on the subject of my assignment and what resources are available in connection to that subject."* (St17, G1)

> *"I use the library's website because it keeps a regular update of journals so I search it every week to see what new resources are available. Although I also use the printed collection, this is not updated as frequently and so I often find digital resources more useful. The website is well designed and is the fastest and easiest way to find what I am looking for."* (St2, G2)

One student expressed their preference for the use of government documents. This was due to the nature of their master's degree (Public Relations) which required them to view statistics and up-to-date information regarding government issues.

> *"My teacher recommends that I read government documents, firstly because they provide certain evidences related to my studies that cannot be found from other sources and secondly because we use them as a basis for discussion in our classes. The documents are easy to browse, and have been useful for my study."* (St15, G1)

Most faculty members preferred to use the electronic resources of computers and databases to access digital resources which are conveniently available throughout their university networks. As scholars and teachers, they focused on the quality of references and so researched many resources to find the best literature for their own work and the teaching of their students.

> *"It depends on where I am seeking information from, whether it is books, journals or electronic resources. Personally, I prefer citing information from electronic resources because it is easy to store on*

my own computer from where I can then access it more conveniently than printed resources. I think that there is little need for printed versions of resources if they are available in an electronic format." (Acad10, G2)

"I always prefer to use electronic resources as they are often faster than consulting print resources and are updated far more frequently. Also, it is possible to access them outside of the library and items can be saved and stored meaning they can be retrieved anytime, anywhere." (Acad1, G2)

"I have internet access in my office at the university. When I log on to the library website it allows me to access online databases such as EBSCO, JSTOR and Lexis-Nexis. I think that these are very useful as they have many quality resources which they are continually updating." (Acad7, G2)

Other faculty members though prefer to use books as their main source of information. Some felt they were a more detailed resource than articles and journals. Others expressed a greater knowledge of printed texts with regard to relevancy to their subject and they had their own personal collections of preferred texts that they used regularly.

"I prefer to use books as, through my eight years experience, I have gained an understanding of relevant and irrelevant texts. Also, I find that books provide better explanations of issues than journals. Books are always at hand and don't require the internet or a computer to use them." (Acad2, G2)

"It depends on the information I need. I think books are probably more useful as they are more detailed resources in comparison to articles, for example. I use my own, personal collection of books that I keep in my office as points of reference for my work." (Acad8, G2)

One unique response was a preference for newspapers. This faculty member worked within the business department and gleaned information from business newspapers saying he would rather read these than books or digital resources.

"I tend to use more than one type of information resource. For example, I use books to search for theories about marketing and business. I am also interested in reading business newspapers and magazines to gain more knowledge and understanding of my major. Business newspapers keep me updated with events around the world, which are relevant in my field." (Acad9, G2)

Administrators identified computers and the internet as the most useful or preferred method, due to the nature of their work.

"As I work in the department of Student Activities, my main concern is simply that of the university students. Our role includes creating activities and planning and preparing trips, plays and parties so I use the internet a lot to search for new ideas for student experiences." (Admin10, G2)

"The databases in my library are my favourite resource for getting information related to my major. I use that on my own computer in my own office. I also use Google as a useful search engine which I find particularly easy to use." (Admin5, G2)

"As I am in the resource centre, I tend to use the internet and databases most frequently to collect the information I require. I always use the library database as I find it to be rich in varied sources of information." (Admin9, G2)

The data shows that two out of ten comments conveyed a preference for books as an information resource usually because of a dislike of technology and a view that printed books were more convenient and accessible.

"I may use all of these resources at some time but I prefer to use books for my work. I'm not particularly good at using computers and I cannot spend a long time reading from a screen. With books, I can read anywhere at any time that is convenient to me and, for me, it is more accessible." (Admin3, G2)

"I am not good with technological resources and so I prefer to use books, newspapers and magazines. Sometimes I borrow these from

our library. I only use a computer for communication, i.e. e-mail and
for work." (Admin8, G2)

The interviews identified a preference for the use of newspapers and magazines as preferred information sources, over books and articles.

"I tend to use newspapers and magazines more than any other
information resource to support my work. The reason for this is simply
that I feel these to be the most up-to-date source of information that I
can check on a daily basis." (Admin2, G2)

This trend is contrary to the common belief that books and articles were a more popular academic resource and therefore required further investigation.

7.3.5 Students' Preferred Use of Library Services

Following the general questions of the interview, the student group were then asked more specifically to describe which of their university library's services they used most often and why. Understanding which service is used frequently can help to make recommendations on improvements within the library. The study's objectives include developing an understanding of how users use library services.

Overall, 12 of the 20 participants used the internet access provided by their library most frequently.

"Most of the time I use the library when I need to access the internet
so I can research via search engines such as Google and Bing which
offer me an easier way of researching the facts I need faster. Search
engines are such a fast and useful tool, that spending time looking for
books in the library seems pointless." (St14, R1)

"I use the internet at the library to find and read websites that are
related to my studies, using Google as a search engine. Sometimes I
also use it for personal use, such as checking e-mails and social
websites." (St20, R1)

Five participants further stated that they used the library's own website. For some this was for internet access and links, for others it was a way of keeping up to date with university events.

"I'm not keen on using the library catalogues as they are not always available when I need them. I mostly use the library for its website because I don't have access to the internet at home. Much of my internet use in the library is social and entertainment due to the situation at home." (St11, R1)

"Using the library's website is the most useful service for me. I can find out everything about the university and so be aware of any events around me as well. In addition, I can link with other students to share and discuss our opinions together." (St13, R1)

Two contributors identified their library use as being primarily for printers and photocopiers.

"I mostly go to the library to use their printer because most of the time my printer is out of ink or there is no paper or some other such problem so I find it much simpler to walk down to the library and use the printer provided." (St12, R2)

"The photocopier is the service I use the most as we can't find a photocopier anywhere else and it is not easy to have one at home, so I use it in the library to photocopy all the documents and books I need. It's very cheap and good of good quality, so it makes copying many documents easy and fast." (St4, R2)

7.3.6 Library Support of Faculty Programs and Student Studies

The current section focuses on the role of faculty programs in supporting student study. One PPP variable is the target for this interview question (see section 4.5.4).

The first of five questions posed to the academic and administrator groups, asked them to consider how well their university library supports their faculty programs. Positive responses praised the work of the library staff including their experience and knowledge and support of students, the extensive resource collections and their relevancy to courses, the technology and equipment provided, and the running of various training programs.

"In general, the library staff are extremely helpful to us and the students. Every semester the library aims to provide appropriate collections and when we ask the library about resources, they do their utmost to find it and if they cannot find a specific text, they will provide a suitable replacement." (Acad2, R1)

"The library currently supports my faculty's programs by providing training for my students and an extensive resource collection that allows them to source all the information they require to support them in writing assignments and preparing for exams." (Acad10, R1)

The negative responses focused on the perception that more detailed and specific training and courses needed to be provided by the library, for the students.

"The library provides some resources that are related to my programs but, in my opinion, there is not enough. Students need opportunities to improve and develop information and IT skills to help them use the library effectively and efficiently. I believe that this is the librarian's responsibility to provide such services. Courses and training should be provided more frequently and organised better." (Acad3, R1)

"That is a good question. I think faculty members need assistance with teaching their programs, from the library. However, there is a limit to how librarians currently support academics. I believe they can do more for us. For example, they could provide a service that teaches our students about citations, copyright and assignment structure. These types of courses would be good for bachelors due to the detail required in writing assignments." (Acad6, R1)

7.3.7 Perception of Library Collections

The value of the libraries' collection was determined via a specific set of questions for both the student and academic participant groups. Despite contemporary emphasis on access, the quality of a library's collection remains an important aspect of assessment. The students were asked in the interviews to explain how they considered their library's collection supports their individual study needs,

with regards to the independent variable measures. The majority of responses made positive comments, stating that they supported the student's studies well.

> *"The library is great for research especially with the array of books to choose from. Whatever assignments I am given I know I can go to the library and find out whatever I need in order to complete my work to a high standard. I know that I can find information quickly, which is good as my time is precious to me when it comes to study."* (St14, R4)

> *"I would say that we have a high quality collection of electronic materials because I used a lot of these materials last term and they were really useful which was great. I used lots of E-journals and documents, which are quick and easy to reference as they are digital."* (St2, R4)

> *"The best function of the library is that they offer a high quality of collections such as books and government documents which motivates me into using the library for my work. The collections are easy to access and it is easy to find the relevant details I require using the directory system."* (St3, R4)

However, five responses were negative, suggesting that the library collection was not good enough to fully support their studies. This was usually due to the appropriateness and relevancy of materials within the collections.

> *"I use the internet rather than relying on the physical collections available because it can be hard to find the information I need, there aren't many materials relevant to my work and they are not up-to-date. This is the main area of improvement I would recommend to the library, improve the collection."* (St8, R4)

The faculty members were also asked for their views and revealed mixed feedback on how well the library collections support their students' studies. Seven out of 12 participants provided positive answers whereas five gave more negative responses.

The positive responses identified library collections that provided all the information and resources required by students. Some explained they had never

received complaints from their students regarding the collections and others praised the availability of resources in a variety of formats.

> *"This is an important issue. When GUST was established in 2003, students struggled with the library collection as it was new and many services required improvements. Now it is completely different and the library provides an excellent collection in all formats."* (acad9, R2)

> *"The size of the library collection is sufficient for our program's needs. I am not aware of any complaints from the students against the library and so I am content that the collection meets the needs of our students."* (Acad11, R2)

Faculty members with a more negative view focused on the need to improve the size and breadth of their library's collection.

> *"This is a very important issue. It is essential that a library provides a collection that helps students in their studies. I have noticed that students make more use of online databases than printed resources as electronic sources are updated more often. This is one of the disadvantages of the collections of all branches of the KU libraries."* (Acad1, R2)

> *"The library does not provide all the resources required for my program. Sometimes, I have to recommend specific resources to my students that they have to find from somewhere else. In addition, I also give them related websites where they can find new resources."* (acad3, R2)

7.3.8 Collaboration between Librarians and Academics

The next interview question asked academics about the collaboration between academics and library staff. The majority stated they had little or no communication with the librarians.

> *"We have much respect for the librarians but I have worked at KU since 1998 and, personally, I have had little interaction with the library staff during that time. There is little need for collaboration*

between my department and the library administration but sometimes the librarians are called on to help our students." (Acad10, R3)

"The only time that the faculty and library collaborate is when the library sends lists of new resources to our department office from which we choose items that are relevant to us. Unfortunately this is the only collaboration with the library. If there are items we require that are not on the list, we have to obtain these from elsewhere." (Acad2, R3)

Many who said there was limited cooperation between their faculty and the library admitted they would like to see a change in this as it would be more beneficial to their department and students.

"Good point. At the moment, there is no collaboration between us and the librarians. I think the main reason for this is due to the policy of our university in that it does not provide opportunities for faculty members and librarians to work together. However, if this were to change, I think it would improve the quality of the education system." (Acad4, R3)

Only three participants said that they collaborated with library staff on a regular basis. This collaboration revolved around the provision of training and programs to improve the information literacy skills of students and academics.

"I feel that both the library and the faculty team support and advance the education of our students. I can definitely say that there is collaboration between us and the librarians with regard to information literacy programs and in-class orientation." (Acad8, R3)

7.3.9 Student Satisfaction of IT Services

This study explores Information Technology as one independent variable regarding the performance of university library services. Therefore, it was important to identify the opinion of the student group regarding the university library IT services.

A large majority of the student group (16 out of 20) provided positive feedback in terms of the IT services of their library. A more even response, in terms of

negative and positive comments, was expected as in the case of the questionnaire results.

> *"I think our library provides an array of Information technology services. I always use the library computers to browse through related resources and digital materials."* (St8, R3)

> *"I can't deny the value of the services available in the library especially with regard to the networks. In particular, I am always impressed with the way the IT is kept up-to-date."* (St11, R3)

> *"There are a lot of changes happening in the IT world every day and the best feature of the IT services in our library is that they keep updating the tools and programs in correlation with these changes."* (St6, R3)

Four comments, however were negative responses and linked to student perception that the quality of the IT services provided by their library was not as good as it could be and that there was room for improvement.

> *"The IT services are still of a low standard in comparison with other universities. The computers, in particular, have not been updated for quite some time. The university needs to invest in modern and faster computers as the library computers are not fast enough."* (St5, R3)

> *"The IT services are not maintained well enough at the university. For example, if there is a problem with a computer, it can take weeks for it to be repaired and often the scanner is not working either. As a student, these services are very important and so there should be more effort to maintain the services to a high level."* (St20, R3)

7.3.10 Student Perception of Training

Training is one of the five independent variables; therefore user's perceptions on this subject are valuable in library evaluation. A key library performance indicator for university teaching and learning objectives is to train students and academics in the skills to effectively use a library and all its resources and facilities. Training is included within several areas of the study objectives regarding satisfaction and improvements in training.

The majority of responses, particularly from KU students, were negative with regard to this area due to the lack or limited availability of information literacy in the university libraries.

> *"I am not satisfied with the training courses because our university doesn't seem to care about information literacy programs. I am not too familiar with the use of databases and other software, and it almost impossible to get training for this. Workshops for training are very rare, and I often cannot attend due to the times they run. When I started here, there was no introduction or training on how to use the library. Training should be given to new university starters in assignment structure and information literacy."* (St8, R5)

> *"Literacy training sessions would help me to further my knowledge and lead me to success in my studies. However, my library doesn't provide training and workshops other than some guidance on how to research books. I would like some training in assignment structures, as I don't feel I fully understand this topic, and I'm sure that other students feel the same way."* (St1, R5)

> *"Training courses in information literacy are a bright idea to help students to further their learning. To be honest though, there are limited amounts of courses run here. I had to seek training courses from an outside source in computer skills, as the library doesn't provide this training."* (St5, R5)

7.3.11 Communication with the Library

In the questionnaires, the researcher asked participants how they communicated with their university library. The researcher wanted to explore the nature of communication and the effectiveness of communication tools further and so included the same questions in the interviews. It was hoped that this would enable the researcher to evaluate the effectiveness of the link between faculties and their libraries.

Communication between the student group and the library is very important as they utilise the library services for their research and studies. The questionnaire

results showed that the students communicated a great deal with their individual libraries and the point of repeating this question in the interviews was to probe further and discover which forms of communication were the most popular and most effective.

The interview results for student-library communication illustrated that 14 out of the 20 students spoke to the library staff face-to-face and/or used the telephone to make contact. This tended to be a result of personal preference with many feeling more comfortable making contact this way or because they saw less need for the use of other forms of communication such as e-mail.

> *"I'm not up dated with the modern devices of communication so I prefer to just use the traditional methods of speaking in person face to face or over the phone. I see no need for the use of e-mail."* (St1, R2)

> *"I would rather use the phone. I find it more reliable and I am more comfortable using the telephone compared to other forms of communication."* (St15, R2)

However, three students said that they regularly used e-mail to contact their library. This again appeared to be due to personal preference as the participants in question found it a more convenient or easier mode of communication.

> *"E-mail is always my preferred choice especially as I can use it to contact the library from home. I can ask for book suggestions and the library staff can send me lists in their own time which is far easier than over the phone."* (St5, R2)

> *"I mainly use email as it's faster to get the messages across and isn't time consuming like other methods of communication can be."* (St14, R2)

One student who currently uses the phone and e-mail to contact their library, made the interesting suggestion that if the library were to introduce the use of SMS in their communication, in particular, free of charge, then the participant would favour this method as it would be far quicker and easier.

> *"At the moment, I'm using phone and email. I think SMS is not available right now but if the library provided this service, I would*

use this instead of phone and email (especially if it is free) because it's easier and faster." (St8, R2)

Most faculty members used the telephone in order to contact their library with two participants also visiting the library in person to speak to a member of staff face-to-face and a further three also using e-mail in addition to the telephone.

"I always use the phone if I am away from my department but otherwise, I go to the library in person as my department is so close to the building. If I have a list of required resources I send it by e-mail." (Acad1, R5)

"I usually use the library network, phoning the librarians if I need their assistance. They are always helpful and are able to deal with my request or enquiry immediately. As a result, I tend not to use e-mail or any other form of communication." (Acad, 4R5)

"During a course I will contact the library by phone when there is information that I need. I rarely visit the library in person as I don't use books very much." (Acad6, R5)

Three out of the 12 interviewees remarked that they have no communication with library staff at all, primarily because they have no direct dealings with their library.

"We don't really have communication with the library staff as we work independently and our department provides everything for us that we need such as computers, copiers and printers. I rarely visit the library because as a faculty member, we do not have the same need for communication as the students. In turn, the library focuses its communication services on the students rather than the faculties." (Acad11, R5)

Regarding the issue of cooperation between administrators and librarians, the level of collaboration depended upon the department of the administrator and whether or not their role necessitated communication with the library. The majority had little direct contact with the library staff with the research data showing six out

of ten interviewees noting that they rarely needed to cooperate with their library directly.

> *"As administrators, we encourage that students and academics use electronic communication tools such as e-mail, chat and the library website. Although both our department and the library serve to provide the best support for the students, the individual work we carry out is completely different and so there is no need for any collaboration between our department and the library."* (Admin10, R2)

> *"At the moment there is no collaboration between my department and the library but I would like to see more communication between the two. In the other countries, such as the USA, the cooperation between faculty and library results in the library promoting different departments as the majority of students utilise the library regularly."* (Admin2, R2)

> *"At the moment I don't see any kind of direct cooperation between us and the librarians. It might happen with other departments but the concern of our department is the educational exchange between Kuwait and other countries and therefore we don't have any reason to build a relationship with the library."* (Admin5, R2)

However, some comments proved that there was collaboration between some university departments and the library, although the type of cooperation varied from interviewee to interviewee.

> *"I cooperate with the librarians for many reasons. For example, if our department needs some resources, we contact the library and they find it for us as soon as possible. This is far more convenient for us as we simply contact the staff and they sort everything else."* (Admin9, R2)

> *"Sometimes I have to collaborate with the library staff as we may need to use the library's facilities, such as a meeting room. Other than that we have very little dealing with the library as it does not have a direct impact on our work."* (Admin6, R2)

7.3.12 Overall Perception of Library's Physical Environment

Physical environment is regarded as an independent variable within the study which demonstrates how highly regarded the physical environment is for library users. In order for users to work and study successfully, the library's physical environment must be conducive to learning, providing an easily accessible, comfortable, quiet and supportive place for users to complete their study.

The student participant group provided a mixed response when asked to discuss the overall environment of the library. Some were very positive about their place of study, some had concerns with the provisions made while others could think of both pros and cons to their library surroundings.

Positive comments appeared to focus on the clear layout and quiet, studious atmosphere of libraries that made them a more inviting place to work and study.

> *"The layout and design, visually, is great. It's nicely spaced so you feel like you can sit wherever you want and still have personal space. The environment is nice and quiet which helps people to find what they need and research in peace which is good."* (St14, R6)

> *"The surroundings of the library play a major role in our study habits. As the place is cosy and comfortable this allows the students to unwind and feel relaxed. This atmosphere encourages students to visit the library more frequently."* (St15, R6)

Those students who had negative views of their libraries identified noise level and overcrowding as some of the reasons why they were discouraged from using it for regular study.

> *"Unfortunately, at peak times the library can be very noisy and it can be hard to get on a computer as they are all being used. As a result, I am put off going to the library to study."* (St8, R6)

> *"I agree that libraries can influence people to study so that if the place provides a satisfactory learning environment, a person will be interested in coming back again. However, the library is old fashioned and boring and does not inspire me to study there. The library could really do with being refurnished as it looks very dated now."* (St2, R6)

Other students provided a less one-sided view by describing aspects of their library's physical environments that were good and others that could be improved.

> *"As a student who often stays in the library for several hours, I find that the furniture is not very comfortable. However, the space for users is good as they provide separate rooms for complete privacy. The furniture should really be taken into consideration if the library wishes for people to spend much time studying here."* (St1, R6)

> *"I think library's physical environment is very important for users especially students. Unfortunately, the decoration of the library doesn't appeal to me at all or attract me to use the library but overall I think the place is ok and quite colourful."* (St, 3R6)

When asking administrators' opinions of their university libraries, the researcher was particularly interested in their responses as they form part of the university leaders, responsible for organising the budget of their library. The researcher wanted to find out whether the interviewees felt that the libraries created a positive and effective working environment, employed professional and experienced staff and provided appropriate and useful facilities.

The data illustrates that most of the administrators were satisfied with the performance of their library and the level of the services they provide.

> *"I see that all branches of KU libraries offer a variety of services designed to support the* students, *faculty members and visitors. There are plenty of meeting rooms and study areas are available for work. The furniture is clean and new, and the overall quality of the libraries is extremely high."* (Admin10, R3)

> *"The library seems a suitable environment for research and study. The buildings are big and open which make for a more comfortable learning environment whilst also being centrally placed within the university campus making it easily accessible for all students. The furniture inside is comfortable with plenty of space for working, it's an excellent environment to relax and study.*" (Admin2, R3)

"Our library is small when compared to other Kuwait University libraries but it is modern with new furniture and equipment. It looks good and provides a comfortable environment for students and others to study in. It also provides excellent collections that are relevant to the programs offered by the university." (Admin, 7R3)

Despite the majority of comments presenting a completely positive view of the university libraries in question, one administrator admitted that there were some areas in which the library could improve.

"At this point, I can't say that the physical environment is bad, however it is not attractive to me and is not particularly comfortable. The library is too small and crowded, and there is very little personal space when students are trying to study. There is too much furniture and not enough open space, leaving the library feeling very small and claustrophobic." (Admin4, R3)

7.3.13 Library Use and Academic Achievement

Suggestions were sought from the administrators on how they felt the role of their university library could be improved and how they considered this could be achieved. The question asked was: *Do you think there is a relationship between your library and the quality of higher education produced at your university?*

The majority of administrators held the view that the role of the library was vital to their university's success and that in order to improve on their performance they must have support from the university and must ensure that they continually update and modernise their collections and technology in order to achieve their performance goals.

"The library plays a vital role in supporting student study, moreover supports our academics. The training in the library helps students with writing assignments, and I think this training has an impact on the grades students achieve overall. A high quality library is what we are aiming to provide and I think the results the university produce are in part from the service the library provides to all users." (Admin6, R4)

"I agree that the library can play an effective role and believe that any university cannot achieve its mission and vision without the high quality services that the library provides to assist students and staff in their work and study. I think it is important that university leaders support and fund their library." (Admin1, R4)

"If the library continues to make itself attractive to its users, it will have a positive impact on the role the library plays in the students' and university's overall success. In my opinion, our library is an excellent place for study and research and so needs to maintain this through regular development and modernising of all its services." (Admin9, R4)

According to administrators' comments, concern for the library usage was evident and academics held the belief that the library played an important role for students and academics in the community.

7.4 Summary of Findings

The quantitative data collected in the students' questionnaire showed that their main reason for low library usage is the lack of knowledge about the existence and usage of provided library services. Moreover, a great proportion of students solely visit the library for individual and group study reasons without using actual library services. Finally, a significant number of participants stated that they would only use the library for socialising activities such as the usage of social networks. The data collected through the qualitative interviews showed similar results but provided more reasons and details about students' usage behaviour patterns. The interview data found that the majority of students show a variety of different library usages depending on their individual preferences and the period of the semester. The questionnaire data showed that most students come from the social sciences faculties rather than the applied sciences faculties. The interview data outlined that this result is due to the high number of reading lists social sciences students get from their lecturers and due to the academics overall recommendation to search for respective study-related information in the library.

While the questionnaire found that students use primarily books and electronic resources, the interview data showed a partly different result. According to the interview, students mostly used books or library websites rather than electronic resources. Students explained that using the website is easier than accessing other electronic resources. Moreover, the questionnaire found that female students were visiting the library regularly, but only for short periods of time. The interview found the same result, that more females use the library than males but only for short visits and gives reasons for this phenomenon. Student female interviewees stated that they use the library primarily for printing and copying resources as well as borrowing books for studying at home. Therefore, they did not prefer to spend their main study time at the library, which explains the little amount of time measured for female students.

Academics showed different behaviour patterns. The quantitative questionnaire data showed that, depending on their age group, they tend to use electronic resources from their own personal computers. In the event that they visited the library, electronic resources were more likely to be used than books. Moreover, younger participants were more confident about the reliability and quality of the digital library items. The qualitative interviews showed different findings, with the majority of the interviewees stating they use books rather than electronic resources. Those sticking to their preference of digital material as referenced from the questionnaire, acknowledged that using electronic resources, especially from their own computers, was more convenient to fit into their working schedule as well as more relevant and up-to-date than other library resources. Those participants stating they preferred to use books as their primary resource said that they felt familiar with the authors and experienced books to be more detailed than other library items.

The questionnaire showed a positive attitude towards the outcome of library performance in relation to the input. Hence, the quantitative data illustrated positive answers concerning the influence of library services on the goals and objectives of academics. These goals and objectives include the curriculum, research, learning and teaching, training, resources and the satisfaction of databases. The participants agreed on an existing collaboration between the faculty and the library. When academics answered this statement detailed in the open ended questions of the

interview, they gave rather negative feedback. According to most of the interviewees, the collaboration between faculty members and librarians requires future improvement.

> *"The only time that the faculty and library collaborate is when the library sends lists of new resources to our department office from which we choose items that are relevant to us. Unfortunately this is the only collaboration with the library. If there are items we require that are not on the list, we have to obtain these from elsewhere."*
> (Acad2R3)

Administrators' answers in the questionnaire were quite similar to their statements in the interviews. IT Services were similar in both research methods, while other variables showed slightly different opinions due to the interview's detailed composition. Hence, positive and negative feedback was mixed for these variables. Some interviewees encouraged the cooperation of library staff while others did not see the necessity for regular contact. However, there were few differences found between quantitative and qualitative findings.

Students' data was significantly related to IT Services, Collection, Facilities and Equipment and Training. Most of the students had a positive attitude towards their academic library, stating that the institution supported their studies. 16 out of 20 interviewees gave positive feedback concerning the IT Services, although the data collected from the questionnaires expected less positive results. In particular, KU students responded negatively towards the Training variable. This was particularly due to the limited availability to information literacy courses and workshops in their respective academic library. The interview questions concerning the Library's Physical Environment showed missing answers. While some students were satisfied with their place of study, others found mostly negative components within the Library's Physical Environment. Moreover, some students had concerns about giving any positive or negative feedback concerning their library's surroundings.

Academics showed a significant relation only between the Libraries' Physical Environment and the perception variables. The support of the library collection concerning teaching and learning also revealed mixed feedback.

Administrators' data demonstrated a significant correlation between IT Services and the perception variables. The majority of administrators were satisfied with the library services and stated their overall positive attitude concerning this variable.

After studying the interview data, it became apparent that most library users had concerns about the training courses available within the library. An obvious indication of this is echoed in one student's statement:

"I am not satisfied with the training courses because our university doesn't seem to care about information literacy programs." (St8R5)

Another finding based on the interviews was that opinions are often split on many areas of library use, but that is due to the interviews being carried out across the three universities. The standards of one academic library are often far superior to those of another, which highlights why library analysis is important to keep up with the competition. The analysis of data in this section has been compiled together in order to prevent any negative feedback being portrayed by direct association with any particular library. This allowed participants to express their true feelings on the libraries without holding back information.

7.5 Conclusion

This chapter explained and analysed the interview responses from participants, including students, academics and administrators. The interview data succeeds in diversifying the information collected, resulting in the gathering of a wider variety of open ended responses which allowed for more in-depth research. This chapter was divided into twelve variables among three groups. Quotes were provided to give insight into the respondents' opinions about their perception of library usage. Participants were willing to comment on the structure of the library usage, which reflects that phone interviews were a clearer, more comprehensible method of gaining opinions.

The following chapter explores the nature of the factors of library usage that influence educational performance. Also the results of the questionnaires and interviews are compared, discussed and examined.

Chapter 8: Discussion

8.1 General Discussion of Findings

The research design of the study consists of two parts: questionnaire and interview. The combined evidence that results from application of both methodologies provides comprehensive insights into the idea of PPP. Both positive and negative effects on PPP were examined. The interview procedure was used to explain the positive and negative effect observed in the questionnaire. After analysing the questionnaire and interview data, several findings support the initial questions and objectives. The satisfaction with the library in general was positive, which is a good indicator for the library administration staff. The idea of PPP being improved by using the academic library was supported within the questionnaires and interviews, and will be explained later in this chapter. The usage of the academic library is explained using the questionnaire results.

8.2 University Library Usage in Kuwait

Academic libraries are used in various ways by users to suit their study needs. During the questionnaire phase, library users were questioned on how often they visited the academic library. As expected, due to related studies, the highest number of students visited the library weekly, followed by students using the library facilities and services every two to four days. Jiao and Onwuegbuzie's (1997) study supports these findings. This result shows that students constantly work on their projects; therefore, they require library resources, facilities and services at least once per week, preferably more. It was expected that juniors and seniors would use the library more than freshmen and sophomore students. Simmonds & Andaleeb (2001) surveyed the general population of the academic library to understand who uses the library the most. The majority of users were juniors, followed by seniors who made a combined total of 50% of library users. Bridges (2008) found a larger percentage of seniors used the library. In this case, 38.7% of the library users were senior students. Combined with juniors, the total was 63.4%. For this reason, findings in the current study are surprising, as the combined majority of users are freshmen and sophomores. Postgraduates were the least frequent users of the library which was

also supported in the findings of Simmonds & Andaleeb (2001) and Bridges (2008). There was no explanation for this, but it could be assumed, due to interview findings, many senior students feel the library does not offer sufficient high quality resources, which freshmen may not be aware of until several years of study have been completed.

It was expected that the majority of student library users would come from social sciences (i.e. Law, Education, Administrative Sciences) rather than from applied sciences (i.e. Medicine, Pharmacy, Dentistry), based on the findings that students of the social sciences use all service dimensions of the library in comparison to students from other faculties. Simmonds & Andaleeb (2001) found that 45% of library users were majoring in social sciences, compared to 22.9% studying science and engineering combined. The author states that many students access the library remotely from labs and home computers; however social science students make use of the physical collection. Chrzastowski and Joseph (2006) state that social science students are the most frequent users of the academic library. The reason for this is that social science students require many different resources such as printed and electronic, with 65.9% using books.

In contrast, engineering and life science students gain practical experience in the laboratories during their studies. Only 39% of life science and engineering students used the library compared to 49.5% of social science students in Chrzastowski and Joseph's (2006) study.

Due to the more general nature of web resources and the importance of search engines such as Google, it was expected that students would primarily use these types of electronic resources. Swain (2010) states that 84.4% of respondents used Google to search for assignment information. However, the current study found that students frequently used databases during their library visits. This result could be explained through the fact that databases provide specific resources for coursework and research students and some of these databases are only accessible from university library computers. Therefore, students prefer to use their time at the library researching databases rather than surfing general web resources on the Internet. Another result for the usage of electronic resources is the low importance of e-theses and dissertations. The majority of participants of the study are

undergraduate students who prefer using short academic resources such as journal articles and book chapters for their assignments. However, Hamade and Al-Yousef (2010) state that students' primary source of information in Kuwait still comes from the printed collection. Due to the higher number of female students at the three universities, more female students were expected to use the library in comparison to male students. This statement could be significantly confirmed. However, female students spent less time in the library than male students, as also found in a study by Whitmire (2002). She states that 60% of students in the academic library were female, which supports findings in the current study that females are the most frequent users of the academic library (59%). However, this study found that females use the library for shorter durations than males, due to the reasons they attend the library. 52% of females used the library to collect and return books, compared to 39% of male respondents. Copy and print facilities were used by 46% of females compared to 33% of males. This supports the theory that female students use the library to collect books and make copies, and then return to their homes to study. Lerner (1993) suggests that male library users tend to have a larger personal space than females, using books and papers to mark a territory. Also, male students are more likely to invade the personal space of females than males, making female students uncomfortable studying in the library. Female students who attend female only libraries often find it challenging to work in mixed gender environments. Bennet and Wright (2010) state that females from the Gulf States who attend single gender universities and libraries find it harder to integrate with males and share their opinions, which suggests females students find it difficult to share personal space and study together. In the past, females in Kuwait lived a sheltered life, which could explain why a large percentage of students study at home, although this trend is changing (Sonbol, 1996).

When visiting the library 39% of students tend to spend up to one hour, while 26% spend one to two hours. These results were expected since the higher female population at the three universities usually do not stay for long periods of time at the library. However, time spent at the library does not reflect the level of educational performance of participants. Some students spend less than one hour at the library but study at home and achieve high grades, while others spend more time at the library but do not use study-related services and resources. This finding is supported

by Grimes and Charters (2000), who state that academic achievements are not correlated with the amount of time spent at the library.

The study found that 20-30 year old academics used resources from their personal computer rather than printed resources from the library. This finding was expected due to similar studies on the topic of electronic resources. Tenopir, King and Bush (2004), state that younger academics use electronic resources to a greater extent than older generations. Academics aged 31-40 were the primary users of electronic resources, with 51-60 year old academics being the least active users of electronic resources. This result perhaps can be explained through the electronic environment, which the younger population of academics grew up in. Tenopir (2003) suggests that younger users are more enthusiastic and confident using computers compared to older generations, mainly due to their education. In contrast, middle-aged and older academics are more confident about the reliability and quality of electronic resources. In contrast to the student population, the study did not find a gender difference in the library usage behaviour patterns for academics. This result was expected because female academics are usually more confident than female students, and are aware of the importance of library resources for teaching and research matters.

As the study expected, the main fraction of academics visited the library weekly. The remaining academics visited fortnightly or monthly rather than daily or two to four times a week. This finding can be explained through the lower necessity to visit the library in comparison to the student population. While many academics often choose to work in their own office and visit the library for resourcing and service purposes, students additionally use library facilities for studying purposes. Overall, academics from the education, administrative sciences, social sciences and law faculty were using the library more frequently than those from other faculties. Smith (2003) supports the theory of academics using the library's electronic resources to a greater extent than the printed collection, which explains why many academics attend the library less frequently than students as they are accessing resources electronically. Although library attendances are falling, the use of electronic resources is increasing.

This study involved the administration level of the universities and administrators also showed low library usage rates. In general, administrators used IT services more than students and academics mainly due to their administrative roles within the university. The IT services used are primarily within their offices and not in the library. Depending on the department, administrators use the internet frequently which is described in the following statement:

"As I am in the resource centre, I tend to use the internet and databases most frequently to collect the information I require. I always use the library database as I find it to be rich in varied sources of information." (Admin9, G2)

The majority of older administrators visited the library monthly, while another proportion of younger administrators visited the library on a weekly or fortnightly basis (see figure 6.11). Younger administrators attended the library more frequently to read magazines and use library services and other activities, unavailable in their own departments and working environment, while older generations generally showed less frequent usage behaviour. Interview data collected showed that elderly administrators tend to use the library casually to read newspapers and magazines:

"I tend to use newspapers and magazines more than any other information resource to support my work. The reason for this is simply that I feel these to be the most up-to-date source of information that I can check on a daily basis." (Admin2G2)

8.3   Concluding Remarks of Questionnaire Data

This section makes general remarks on the main findings of the questionnaire used in the study. The focus will be on overall results and also on the unique features of the statistical analyses of the samples from students and faculty members. The findings were supported by previous literature.

8.3.1 Library Value

The library was used for studying by 76% of users which shows that the library is a valuable study area for students. The majority of users would spend under one hour in the library, but the services used in this time gives the library its value. Using the copy facilities or checking emails takes very little time, but the ease and speed of the equipment is why users attend the library. Everyone attends the library for

various reasons and durations, however the value of an academic library varies between every student. The explanations for library usage are described in the interview data. Saracevic and Kantor (1997a) state the value of library and information services are an assessment by users about the qualities of interaction with services, and the worth or benefits of this interaction.

8.3.2 Library Impact on PPP

The majority of users indicated that the library had a positive impact on their PPP. The statement: *visiting the library helps improve my grades,* received positive responses from students visiting the library. The impact the library has on users' studies is closely linked with PPP, therefore users responded positively about the library's collection improving their studies and assignments. Watson (2001) suggests that users are confident and easily motivated when attending the library rather than studying at home, which leads to users responding positively to how the library affects their PPP. Furthermore, if an academic recommends library publications which students can utilise within their studies, this is a direct impact, as without the books provided the users would struggle to complete the assignment. The libraries impact on academics' PPP is through the use of the resources and publications which are housed in the library. These resources are used for academic writing, which academics undertake in their own time during the academic year. Library training also plays a positive role in improving academics' PPP by improving the quality of academic lectures provided. Both of these aspects of library services received a positive response within the questionnaires.

Although the results of the questionnaires and interviews suggest that the library has an impact on users PPP, clearly further supporting evidence might be gathered to ensure that any changes made to the current library setup are necessary. The conclusion of this study regarding the perception measures offers several possible areas for future research. For example, using statistical analysis of library usage data can help point towards services which require investment. Analysis of books usage frequencies and electronic database browsing patterns can provide more convincing evidence required when planning changes, when used in tandem with interview or questionnaire findings.

8.3.3 Library Usage Preferences

The majority of students preferred using printed collections rather than any other resource. This finding was surprising due to the variety of electronic resources and the internet which the library provides. The younger generation are normally deemed to be computer literate and using electronic resources seemed the most logical solution for their studies. The digital collections were used by academics far more than students. Some academics did not visit the "physical" library, only the online library service. Academics used electronic resources in their lectures and transferred information directly from digital material to PowerPoint presentations.

8.3.4 Information Technology within the Library

The majority of library users deemed the IT within the library to be sufficient and of high quality. Users viewed computers and internet access as one of the highest services provided by the library. Therefore, previous investments in computers have had a big impact on the perceptions of library users. Using the library website off campus was not regarded as highly as the facilities within the library. Questionnaire results show a significant relationship between students' educational performance and IT services. Although students use IT services regularly, students in the interviews do not deem computer use as a factor for improving their personal performance. This is supported by Watson (2001) who suggests that although students use IT within the library; they do not correlate this service with succeeding or failing their degree.

8.3.5 Library Physical Environment

The physical environment at the libraries was deemed comfortable and suitable for study, by the majority of questionnaire respondents. However, of the five independent variables, only environment was insignificantly associated with students' educational performance. The library environment helped students feel comfortable and allowed users to study in groups and concentrate for longer periods of time, but was not directly associated with improving their PPP.

8.4   Results and Remarks on Interview Data

The differences between the questionnaire and interview results can be attributed to the fact that, firstly, more participants completed questionnaires than

were interviewed, and secondly, the interviews provided more qualitative data for contributors to expand their answers and clarify their arguments. Interview data was analysed closely for patterns in responses and themes which reoccurred. Questionnaire data was analysed as collective responses, and percentages.

8.4.1 Library Value

Open ended questions allowed users to explain exactly how they use the library and how satisfied they were with the services. There was an overall positive perception of having an academic library on campus, with many students and academics saying it would be impossible to run a university without an academic library. Interview responses show that a high quality academic library adds to the appeal of attending a university and could be considered the most valuable service the university has to offer. One student states:

> *"I feel there is a definite need for the library and I feel that I would not attend a university without an adequate library. I can't stress enough how vital the library is to myself and many of my study friends."* (St5G1)

Although some library users stated that the library was a waste of resources, the overall majority stated a need for a library and strongly supported it. Judging a library on a purely financial basis is a negative stance to take with regards to library evaluation. Students desire various services and environmental stimuli to concentrate and feel relaxed in a library, so removing services which are only used by a few people alienates these users. Unless correct evaluations are carried out, money would be wasted by investing in the wrong services.

Academics strongly support the academic library and feel without it, many of their students would fail their degree. Academics also feel that personally, the library is a useful tool for them to help support their teachings. Recommending further books for students to read, reinforces what has been learnt within lectures. Dickenson (2006) states that 85% of academics included within his study recommend books to students on a regular basis.

8.4.2 Library Impact on PPP

The primary purpose of the current study is to examine the link between academic library usage and improved user performance. This link is examined

through the interview question regarding how users' personal performance improves by visiting the library. The majority of user perceptions of improved performance were positive, with the majority of student users stating the library as having an impact on their grades. The reasons for the improved grades were various, but the most common reasons suggest that the library is a suitable place to concentrate for long periods of time. Long periods of study make students feel good about themselves and their progress, therefore this confidence is carried into examinations and lectures. Results of students had improved since attending the library, and the majority stated that without a library they would fail their course. This is a clear indication of the impact a library can have as the difference between pass and fail is huge. The following statement supports the idea that PPP can be influenced by users' perceptions of attending academic libraries:

> *"Students perceive the library as a place to study, and in this capacity they correlate the library with their academic success"*(Watson, 2001, p.369).

Academics' personal performance is impacted by using the library according to interview responses. Academics use the library to improve their performance for two main reasons, resources for research and library training courses. The majority of academics who carried out research stated they used the databases and collection to aid them whilst writing. The second use is training and workshops on using computer programs such as PowerPoint for classroom presentations. These presentations improve the quality of classes given to students. Therefore training courses can improve the personal performance of academics and students.

Administrators were asked if the library improves the quality of the education given at the university. The responses of administrators were extremely positive with regards to the quality of services within the library, with administrators clearly seeing the need to maintain an academic library. Administrators stated that training in the library helps students produce high quality, well written and structured assignments, therefore improving their grades.

8.4.3 Library Usage Preferences

Students showed different preferences of resources for work and study. Just over half gave preference to books. This was mostly a result of the influence of their

teachers who provided lists of resources heavily weighted by books. According to students' comments in the qualitative interviews, the majority suggest that books are easy to use, reliable and of high quality. On the other hand, some students were forced to use books due to the reading lists provided by professors.

The second most popular resource tools among students are library websites. The reasons given for this choice are that librarians support students in using websites from which they can search and locate relevant texts and resources.

The preference of academics for electronic resources is usually because they can access them via their own computer to work from their offices and locate material through databases, such as ProQuest and EBSCO. This work place is more convenient for them and their work schedules. They also acknowledged these materials to be more up-to-date and relevant in that they could access theses and journals. These results support the views of Meho and Haas (2001) whereby the percentage of faculty members using electronic resources has increased in recent years.

Some faculty members however, continue to use books because they are familiar with the texts and/or authors or they feel books are generally more detailed. The predominant use of electronic resources amongst academics contrasts with the significant use of books by students from the resource lists provided by academics. Despite most academics using electronic resources themselves, they tend to list books as reading materials for their students. This could be for ease and convenience as they are readily available within the library whilst also easy to research and study from. Academics spend far less time than any other group in the academic library which was expected. Previous studies have shown that academics use of library resources is almost entirely through remote usage. Dickenson (2006) states that 71% of academics use the library through remote methods such as via laptops of desktops and connecting online. However, student use is almost 50% remotely, 50% physical visits.

8.4.4 Information Technology within the Library

This generation of students are generally confident and use information and communication tools as everyday objects, programs and software. Internet access provided by university libraries proved the most popular service for the computer

literate students. For the majority, access to search engines such as Google, lured them to the library computers where they found a wide range of resources and materials quickly and efficiently. Additionally, they used the internet for personal use such as e-mail and social networking sites.

Other information technologies used by the students included printers and photocopiers. This was commented on by female students probably due to cultural differences which resulted in them spending far less time on campus than their male counterparts, choosing to work and study more at home as stated previously (see section 6.2.1). As a result, female students are more efficient in their use of the library and printing and copying resources conveniently allows female students to take materials home. From this particular evidence, it can be suggested that university libraries in Kuwait should focus more on their online services so that those who choose not to visit the campus as regularly as others or for long periods of time, can utilise the same services from home or wherever they choose to study. While this particular study focuses on Kuwaiti libraries the implications reach further and show that all universities should provide better services for those who choose not to or cannot visit their university library as often as other students.

8.4.5 Library Communication

An interview question raised concerns about communication between users and their library. Again, this is a more pertinent question in today's society as there are far more communication tools available.

Most participants communicated face to face with library staff or over the telephone. The smaller universities of the study – AUK and GUST – have smaller campuses, therefore making it easier for students and staff to visit the library in person whereas participants from KU, which has a multiple campuses and libraries, showed a higher preference for the use of the phone. A few interviewees stated that they used e-mail to contact library staff, usually for discussions about resource lists.

8.4.6 Library Collections

The students and faculty members were all asked about their perceptions of their library's collections. Students were asked directly how the collections satisfied their study needs and, similarly, academics were asked their opinion of how well the

library collections aided their students in their work. The point of this question was to obtain evidence of the usefulness of collections in order to evaluate the 'collection development activities' (Baird, 2004; Soutter, 2007).

Most students viewed their library's collections positively, saying that they provided them with everything they required for their studies, and that the collections were extensive, wide-ranging and available in a variety of formats. In correlation with this, most faculty members also noted little or no issue with library collections, due to the fact that they had received no complaints from their students. Where concerns did arise, from both groups, they tended to be about the need to increase and update library collections. Participants from AUK and GUST mentioned that they had a good collection of electronic resources due to the restricted space of their physically small libraries.

Hamade and Al-Yousef (2010) evaluated the collections used at Kuwait University library. Their study found similar results to those found in the current study, with students being the most frequent users of the printed collection. This finding is supported by a theory that students may use electronic resources more, if they had correct training in library usage. The researcher agrees that the training provided in all the academic libraries is poor, and if training was given to all new students, then electronic resources would be used to a far greater extent.

8.4.7 Academics/Librarian Collaboration

When faculty members were asked to comment on the cooperation between them and library staff, most admitted that there was little or no collaboration other than the discussion of program resource lists at the beginning of each semester. Despite there being no current collaboration between faculty and library staff members, most academics said they would like to see a change in this situation. This view is supported by Cooper and Gardner (2001) who highlight the fact that collaboration is a mutual act and that both faculty members and librarians will benefit from working together. They suggest that academics can utilise librarian's expertise in 'assignment development', 'determining appropriate levels of research' and 'learning about new methods of research'. In turn librarians need to be given this responsibility from faculty members to ensure that their role is not taken over by the 'ease' of technology.

8.5 Research Objectives

The researcher's **first objective** was to describe the nature of factors that influence university library usage, particularly with the students and faculty members. This study describes the five variables mentioned below, which have a potential impact on the two groups.

The Library Collection is regarded highly by a large percentage of academic library users. The collection at KU is one of the largest in the Gulf States, with over half a million items. AUK and GUST are smaller universities so the size of their collection is much smaller, but is modern due to the age of the library. All three university libraries contain large quantities of Arabic publications, but the majority are published in English.

IT Services offered by all three of the university libraries are modern and of a good standard. The internet connections at the universities are high speed and reliable, compared to home connections. The computers provided are new and modern, and are often being used to capacity so users have to wait for free computers to become available. IT is primarily for internet usage and word processing, but very little communication is made between the university/library and students or academics. This communication aspect leaves Kuwait far behind compared to western universities.

The ***Facilities and Equipment*** offered by the library are printing and copy equipment, and meeting and seminar rooms. The print and copy facilities are frequently in use, and the prices are very competitive. The meeting and seminar rooms are of high quality, with modern projectors and comfortable furniture, and are used regularly through a booking system.

Training provided by the library is not used as often as western style libraries, nor does it receive the same impetus and drive as some programs the researcher has attended in British and Australian academic libraries. The programs offered in Kuwait are run sporadically and only when interest is shown in a particular program.

The ***Library's Physical Environment*** is very quiet and relaxed, perfect for concentrating on studies and research. All the libraries are designed with open spaces and natural light, with all areas fully air conditioned and clean. KU library is the

largest of all Kuwait academic libraries, and the central branch is far superior to the other branches of KU. GUST library is far smaller than KU but is relatively new and offers the same quality and services as KU, but on a smaller scale. AUK is of a similar size to GUST and offers similar spaces and areas, and is continually being redecorated and developed.

The second objective uses questionnaires and interviews in order to collect information on user satisfaction within the academic libraries in Kuwait. The users of the library (students, academics and administrators) were asked various questions relating to the services provided by the library. The satisfaction levels found within the study will be reported to library management to support changes.

The third objective focuses on assessing the needs of university libraries to develop programs for teaching and training of students, academics and administrators. Since higher education is beneficial to the community and society, this study measures the outcome statements of the questionnaires of the following participant groups:

- Students found that academic training helps develop critical, analytic, logical, creative and systematic thinking. Workshops also trained students to work on academic topics and express their ideas in a measurable way.

- Academics stated that academic workshops led to higher interactions between staff and students. Moreover, the willingness to update course material with new publications and technology increased through academic training.

The fourth objective was to assess the needs of university library users for better services. The quality of services of the three libraries has been evaluated through five variables.

To measure the service quality, the researcher used the coefficients of the multiple regression models for students', faculty members' and administrators' data. In addition, this study focused on the impact of all the library usage factors with the dependent variable through the multiple correlation coefficients in university libraries. This assessment is standard in the evaluation of academic libraries.

In the fifth objective, the researcher focused on offering recommendations for how university libraries in Kuwait could become effective in supporting library services. This study also provides recommendations which will help future researchers with their studies. The recommendations of this study refer to the relationship between library usage and PPP of the universities. The recommendations are divided into library evaluation, which includes five variables, and perceived personal performance of the participant groups. These recommendations are presented in chapter nine.

The sixth objective regards the academic library's objectives and if they meet those set by the university. The objectives of the university aim to improve students through various areas of personal development, such as critical thinking. Administrators were interviewed to gauge their opinions on how well the library meets the university objectives.

8.6 FALU Refined

In the course of the study, the Factors of Academic Library Usage model was refined because the initial FALU model was designed and based on literature reviews and similar models from previous studies. No studies were an exact match to this area of study; therefore this study had to combine several other models to aid in designing the initial FALU model. The primary areas of the initial FALU model were training, collection, communication, information technology, facilities and equipment also library's physical environment. After carrying out the library usage research, the initial model appeared to need some modifications. It is apparent from the results that library collection and training are the areas of key importance to library users. Therefore when re-designing the model, collection and training are the focus of the model, and the smaller sub groups are included further down the model. The areas such as facilities, IT and communication tools are still important to a library, but not paramount for a library to function.

The two key areas in the redefined model are collection and training. Collection is a general term used for several areas of library use, such as books, journals and electronic resources. Factors of library usage related to collection could be divided into the following two sub-factors:

1- up to date collection or collection areas

2- electronic recourses.

The results collected from questions S5-S8 suggest that collection is a high priority for all three user groups. Results from the questionnaires suggested that books and journals make up the majority of resources used in the library by students and academics. Students use the library for study and using the internet, however collection is the primary reason for students to visit the library.

The majority of students (55%) stated that their preferred source of information was books. Participants found books easier to use and more applicable to their university studies. The students preferred books, as long as the library collection was up-to-date and relevant to studies that students were involved in.

> *"Books are much more helpful compared to other resources, such as electronic resources. I like to rely on books because most of the time they refer to the correct and right information. The books I have used are all fairly new and relevant which is good as my topics require modern data and studies. I always take several books for a topic of study, and read several different authors opinions on a subject. Also, my teacher tends to give us books on our suggested reading lists."* (St1, G2)

Interview feedback showed that academic library collections must be relevant and contemporary in order to satisfy the user groups. Libraries need to have user input into changes that need to be made and implement these changes accordingly. Carrying out questionnaires on user satisfaction is important, in order to focus on the correct areas that require change. The revised model includes library changes to avoid poor decisions in library improvements which can lead to negative feedback from library users. Intensive research into the needs of users is the only way for a library to progress and improve, and continue to aid the university in achieving its goals and objectives.

The other key area of the redefined model is library training. Libraries run training courses or workshops in many different areas and different university libraries run these courses more frequently than others. Factors of library usage related to collection could be divided into the following three sub-factors:

1. IT literacy

2. Assignment structure training

3. Library use (information retrieval and storage).

The modern library is equipped with an array of technology and software, which requires training to use correctly. After carrying out research in this area using questionnaires and interviews, it's apparent that KU, GUST and AUK require significant improvement in the training they provide. Many of the interviews carried out gave negative feedback about the library training, or the lack of library training on offer. According to results from the questionnaire, it is apparent that there are students and academics who believe that the library offers inadequate training. Questions S13-S15 are based on library training, and many users said there is a lack of courses run at the library, and not enough topics covered. Student interviews gave a clear picture of the types of issues students have with library training courses and their ideas on what needs to be done to correct these issues.

The results obtained from the questionnaires and interviews show that training is a key area. The study model indicates that IT literacy is an area of importance to user development. Many employers believe that computer literacy is extremely important when hiring staff, and Human Resource firms claim recent graduates as generally weak in this area. Preparing students for the working world is the responsibility of the university, so adequate training in this area is important to students' careers. Trying to predict what employers will need in the future is the university curriculum planners' job (Agrawal, Tenkorang, Agrawal and Taylor, 2009).

Assignment structures are an area of importance to any student studying at university. Correct structure will improve the performance of a student, so training in this area is often required. The three academic libraries provide training in this area, but many students believe there are not enough courses available. Improving this area of training could lead to positive results in student educational performance in the long term.

Using the library can be difficult if you have not had training in the use of certain equipment or how to find information you require. The three libraries provide training on general library orientation and use; however there are not enough of these courses run. The use of databases, library catalogues and library software is an area in which students do not have adequate skills and therefore waste time in the library trying to self-learn.

The FALU model is used to understand the functions and services provided by academic libraries. The model will assist the measurement of the PPP of the three main user groups in the academic library. The outcomes of evaluation are addressed as either positive or negative, due to the methods used to handle the evaluation data. A negative outcome would be due to no action being taken based on the evaluation process, or investing time and money into areas which do not require improvement. Positive library outcomes would be due to administration and investors working together to invest money into substandard services within the library. Using questionnaire and interview feedback carefully and using majorities to invest is the best way to improve user satisfaction regarding the academic library.

In summary, the initial model used five areas of independent variables; the refined model uses two primary independent variables. Training and collection remain in the refined model as they were deemed the biggest influences on PPP. IT services, facilities/equipment and library's physical environment were all removed from the refined model. Due to questionnaire and interview data the three areas had little effect on PPP, but still influence user perception of the academic library. The efficiency of the FALU model for evaluating library services and facilities is demonstrated by this study. Furthermore, it is anticipated that the FALU model will provide a worthwhile evaluative tool for use by other libraries in Kuwait and internationally.
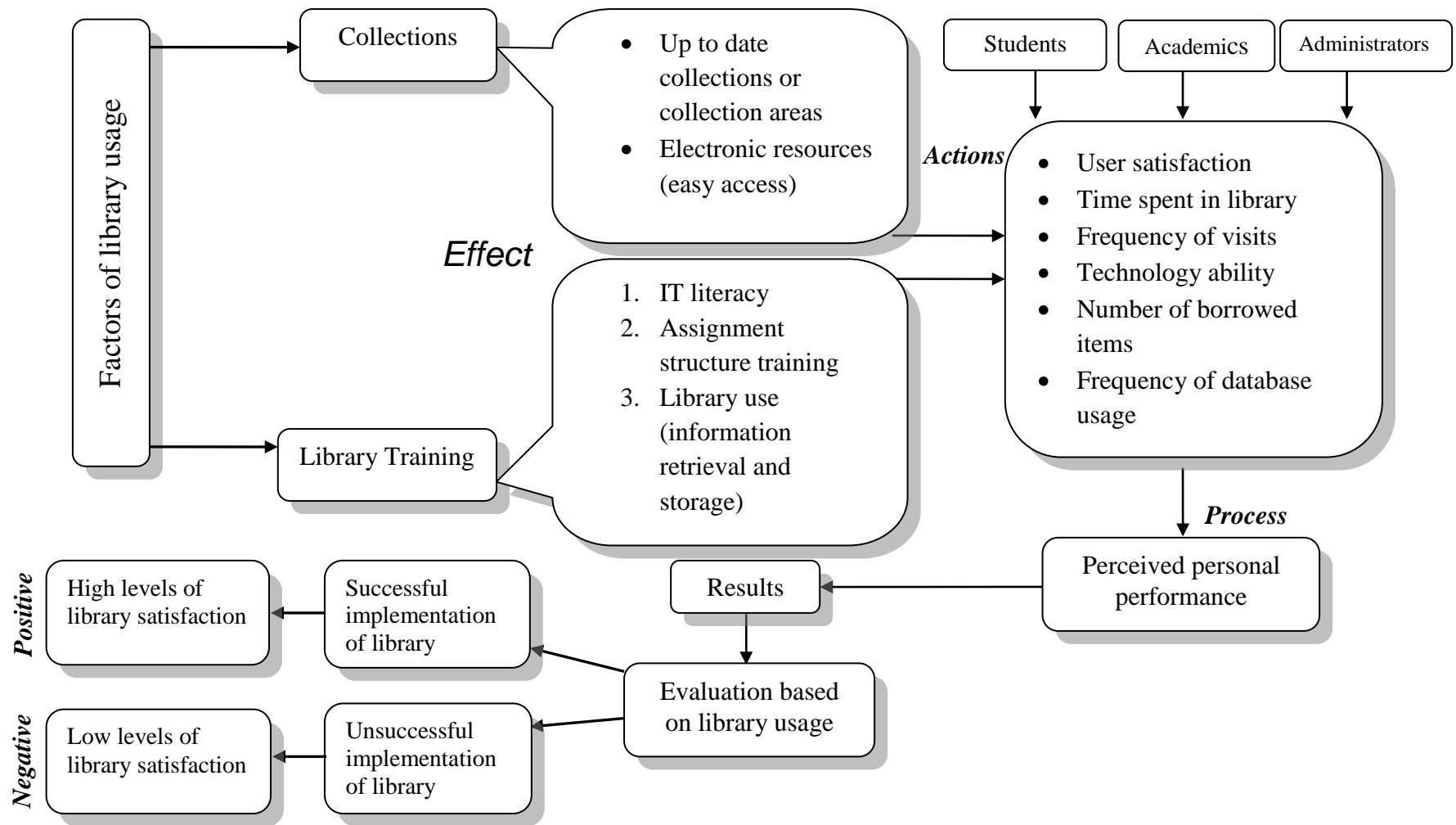
Figure 8.1 Model of Factors for Academic Library Usage (modified based on study finding)

8.7   Summary

This chapter presented findings related to academic library usage and user perceptions. Collection and training are regarded highest by academic library users. This finding has an impact with regards to future library research as these factors can be used as the primary areas of questioning in interviews and questionnaires. Questionnaire and interview responses towards using the academic library has an impact on improving PPP had an overall positive response. The majority of library users are first and second year university students. This finding suggests that 3rd and 4th year students have concerns regarding their time at the library. Collaboration between academics and library staff is low, with only three academic staff from 12 interviewed stating they have any interaction with library staff. Female library users have shown a trend in using the library for short periods of time to use the copy facilities. This chapter highlighted the usage of administrators being based almost entirely on using IT services provided by the library, with many stating they rarely visit the library.

The following chapter suggests contributions and recommendations based on the study's findings. The limitations of the current study are discussed, and areas for future research are suggested.

8.8   Conclusion

This chapter has covered the various topics of discussion within the current study. Discussion of questionnaire results explained the key findings of the study and related them to the research questions. The primary findings within the questionnaire data related to PPP and user satisfaction with the academic library. Interview data was discussed in a similar manner, with PPP and satisfaction again being the two key points. Any unusual or predicted findings were discussed and described as to why they were predictable or not, and literature was used to support this.

The refined FALU model was introduced, and a complete description of the methodology behind this new model was given.

Chapter nine gives the researcher's final conclusions regarding the study. The final chapter describes the major contributions which the study has made to the study

of academic libraries, the limitations, the generalisation of the study and its uses in other academic libraries. Finally, recommendations are made for future research based on areas uncovered during the current study.

Chapter 9: Conclusions

9.1 Introduction

This study was concerned with the factors related to university library usage and the perceived personal performance of university library users. It attempts to provide solutions to how academics, leaders and library administrators can work together to achieve the objectives and goals of the university. The recommendations made by library users from the interviews and questionnaires have given a clearer picture of the changes academic libraries need to make. Questionnaires gave strong indications to which services were satisfactory in Kuwait; due to the number of participants the findings are supportive to several theories of academic library use. The interviews allowed library users to describe in detail the exact issues they had with the academic library, which uncovered new areas for the researcher to consider.

9.2 Overview of the Study

This study began by highlighting gaps in prior research regarding academic libraries and the impact they have on users' personal performance. This analysis led to the creation of questions that could be answered through further study in this area. The research questions were justified, and an explanation for making user perception the focus of the study was provided.

A literature review was undertaken, and the history of academic library evaluation was examined. The concept of academic libraries improving the educational performance was a primary reason for this current study. The review of current studies covered modern inclusions such as the digital library and the internet. Explanations of customer satisfaction were given and standards used such as LibQUAL were included. The influencing factors behind library usage were discussed and this covered topics such as training, and general library services. The study used three user groups of the library: students, academics and administrators. This meant that most library users' perceptions of the academic library were included. This study was the first of its kind which used administrators as part of an academic library study. Incorporating Administrators gives an insight into the people

involved in funding the academic library. It gives the opportunity to examine how administrators' opinions differ from the opinions of academics, especially in terms of collection quality and suitability.

The setting of the current study was explained, and the demographics of Kuwait were given. The three libraries in question were described, including explanation of the size of collections and equipment available for library users. This was done to give readers of the current study an understanding of the academic facilities in a Middle Eastern academic library. The policies of each library were cross referenced to see how each academic library differed from others. The goals and missions of the three academic libraries were all similar. They all aimed to provide quality services, promote Arabic reading and support the objectives of the university. Information literacy programs used in the libraries were examined and were found to be substandard compared with Western universities. Information technology in Kuwait was discussed and found to be of high quality and widely used by all library users.

The theoretical framework was designed, and the Factors of an Academic Library Usage model (FALU model) were produced in order to successfully evaluate academic libraries. The model consists of eighteen factors to evaluate the libraries. Five independent variables were devised, based on areas of importance within the library. Each variable had an impact on user satisfaction and perception. The outcome measures were individually designed for the three user groups, with ten measures used for each.

Questionnaires were distributed to library users entering the academic libraries in the study. Each participant completed the paper version of the questionnaires, which were collected and were input into a digital format using Excel. The data was transferred to SPSS to carry out statistical analysis of the data. Interview data was analysed using content analysis, examining for themes and trends in responses.

Library user responses to questionnaires and interviews showed that attending the library has a positive impact on user PPP. The majority of questionnaire participants responded positively regarding their own academic performance and using the library.

Library service satisfaction was another key area within the study. In general users deemed the library to be satisfactory. The areas of service students and academics felt were lacking in quality were the training courses provided. Academics had concerns about the quality of the collections.

Technology in the Gulf States has progressed dramatically since many previous studies were published. One aim of the study therefore was to provide a study which incorporated new technologies.

Very few studies had been carried out in Kuwait regarding academic library usage, especially regarding user perception. Therefore one of the primary research gaps was to add to the literature of Kuwait in terms of user perceptions of academic libraries. The intention was that providing further literature related to user satisfaction of libraries in Kuwait would help improve Kuwaiti academic libraries.

The questionnaires revealed that all users of the library felt that their PPP improved due to visiting the academic library. The two key services provided by the library were found to be collection and training. These services were analysed and deemed to have the strongest impact on user PPP.

The five independent variables used in the study were analysed using multi regression models, which showed positive alphas for four out of the five factors, only the libraries physical environment showed no relation to PPP.
Social science, education and business students were found to be the most frequent users of the academic library. Freshmen and sophomore students were the largest group of students in terms of academic years using the library. This was a surprising finding when compared to related literature.

The majority of students attended the library once per week or more. This meant that the library is used by a great deal of university students. Academics attended the library once per week on average and administrators were the least active users of the library. One hour or less was the most common duration of library visits. This indicated that many people come for short visits to collect or return books, or to use print or copy facilities. However the most common use of the library was studying alone, or studying using a computer. Academics used the library for

research reasons, and administrators were found to use the library for reading magazines and newspapers.

Questionnaires revealed that user preferences for information differed between students and academics. Students preferred to use the printed collections, which were supported by various related studies. Academics however had a preference for high quality electronic resources. This finding is supported by previous literature (Meho and Haas, 2001).

9.3 Major Contributions and Implications

The findings presented in this study provide a number of significant contributions to and implications for an understanding of perceived personal performance of university library services on students, academic and administrators.

This study contributes to current literature produced in Kuwait (Al-Ansari 2006) as this is the first study based on user perceptions to be completed within Kuwait university libraries. This study examined three academic libraries in Kuwait, with different management and funding (see chapter 5). The library users interviewed and questioned cover the entire spectrum from freshman library users, to academic library management (see section 4.6). Previous studies which have focused on the relationship between library usage and academic performance have had a relatively small sample compared to the current study (Hiscock 1986, Whitmite 2001). These variables in location and users give a full and comprehensive description of academic libraries within Kuwait, including the satisfaction of its users (792 students, 143 academics, 126 administrators).

The investigation offers a thorough and insightful insight into user preferences and perceptions regarding academic library services in Kuwait. This is of interest to researchers within Kuwait and globally due to the rapid developments being made in the Gulf States within the last ten years. Prior to 2002 Kuwait had just one public university within the country; privatization has allowed many new universities to open in the country and investors from all over the world to build new campuses in Kuwait. The private sector has had no previous studies regarding perception to be undertaken on their campuses; therefore this study offers the first insight into the performance and user satisfaction with private universities in Kuwait.

The review of services and facilities of three university libraries within Kuwait is of particular benefit for future planning, implementation, evaluation and marketing for the three universities.

This study contributes to the theory of academic libraries improving users' personal performance (PPP). The library clearly is a vital piece of the academic institution and almost all students feel the need to visit the library at some point. The findings within the interview suggest that users feel a definite impact from using the academic library to improve performance. This study contributes the idea that students confidence increases when using the academic library prior to examinations, which naturally improves the user performance within the examination. Students stated that the library was a suitable place to study and concentrate, therefore improving ones performance is easier when working in a suitable environment. Without an academic library many students felt they would not be able to find adequate resources to pass their degree by using public libraries or the internet, therefore this impact is the difference between passing and failing a degree.

The study has investigated which year groups use the academic library and found the majority of students using the library are from the first two academic years at the university (54%) with freshmen being the larger of the two groups. Findings within questionnaires from junior and senior years suggest that the library collection is not as important to their studies, with many students preferring to study at home using the internet.

Library collection has been identified as the most important service within Kuwait academic libraries after being highlighted as the primary factor regarding user PPP and library satisfaction. The collection was regarded as the biggest contributor for why users attend the library. An implication of this finding would be to keep academics involved with acquiring new collection material, as academics had some concerns about the quality of the collection during the questionnaire and survey phase. Further contributions regard the format of collection used, with students preferring printed collections and academics opting for electronic resources.

A demographic contribution found female students use the library for a shorter time then males. Results also showed that females use the printing and copying facilities to a greater extent than males. The shorter amount of time spent in the

library means the majority of female study is conducted at home which for cultural reasons is the preferred place of study for females.

This study is the first to include administrators in the Gulf States. Administrators were found to attend the library rarely during the study; however this study contributes to the usage patterns of administrators and their use of IT. According to questionnaire findings Library IT resources are used to a great extent by administration.

The study contributes to the literature based on libraries focusing on supporting university objectives. Successful universities use the academic library as an extension of learning; therefore the services provided by the library must aid users in their studies. Basefsky (2000) states that university libraries should promote information literacy among administrators to achieve goals and objectives. In an effort to bring the library's strengths in line with the objectives of the university, administrators are being taught how to use the latest information tools, including leading databases, internet services and existing print and electronic practitioner materials provided by the library.

University institutions in Kuwait must adapt in order to have a successful academic library, therefore effective evaluation is vital. This study has focused on user perceptions within Kuwait academic libraries in order to give management and administration a clear indication of how users perceive their university library. Proving the worth of academic libraries is vital and investment must continue to improve the library services. The model designed in the current study (FALU) is a non-location specific way to examine user perception within an academic library. This gives administration clear indicators to problem areas within their library. The refined FALU model focuses on what are deemed the two key areas of library usage, therefore a problem with either one would lead to unsatisfied users. Carrying out a short questionnaire and interview regime every year would help academic universities prepare for new academic years by implementing the required improvements suggested by users in the last academic year.

9.4   Limitations

This study used a practical approach to measure quantitative and qualitative methods of university library evaluation in Kuwait and discovered the environmental factors, which impact on students, academics and administrators. However, the researcher believes that there are limitations which need to be acknowledged.

One of the main limitations of the study was converting Arabic responses from interviews. The wording of the Arabic questions lost some meaning in translation to English. Some questionnaire questions were difficult for users to understand and users gave no answer to some questions. In particular S13 which regarded training was not answered frequently. Some interview responses were challenging to word correctly into English as the translations were carried out at a later date, meaning the interviewee could not clarify their responses.

The study has provided data from students, academics and administrators. Although library staff gave significant opinions for the library evaluation, they have not been included in this research. Library staff play a significant role within the library services due to their broad knowledge and skills. During the data collection, the researcher observed that the library staff can actually help the library evaluators to achieve the assessment goals. However, the researcher believes that this study focused more on user perception (students, academics and administrators) than on staff. Moreover, staff could also be seen as part of the library environment, as mentioned in the questionnaires and interviews. In addition, the overall value of library services is not only affected by students, academics and administrators, but also by the perception of non-users and remote users as well. Ignoring other users perception could lead to some limitations.

Based on the results of the questionnaires and interviews, the reliability was relatively poor in the training section compared to the other factors with a range of 0.68 (Cronbach's alpha) between the three groups. This could be due to questionnaire users not fully understanding the questions. The training section questions needed some explanation for users, meaning the questions should have been re-written.

The questionnaires were conducted during the examination and assignment submission time. As expected, the majority of students named studying, borrowing

and returning books and using the Internet for studying as the main purposes for their library visits rather than socialising or reading newspapers and magazines. Therefore, these figures are representative for this period of the semester since the sample consisting mostly out of undergraduate students tend to study in intervals rather than constantly. However, if the questionnaire had been handed out in the beginning or the middle of the semester, the results could have been different.

The distribution of the questionnaires could have been given to users via email or through the university website. The questionnaires were given out by hand, meaning that there could be some bias in selection, even if it's not a conscious decision. To eliminate any bias on appearance, the questionnaires would have to be completed online. This means that non library users or users who only access the library online would not have been able to participate in the questionnaire.

The results of interviews and questionnaires taken by the administrators have some limitations. Administrators work for the university, and therefore would probably not want to be directly negative about any aspect of the library and how it performs. This means that administrator bias may be swayed towards positive responses, regardless of the actual situation within the library. However, the administrators answered the questions within the questionnaires differently, some basing their answers on their library experiences and some basing it on students' library usage.

This study is a general study of Kuwait academic libraries, which all differ in various ways. To prevent any negative results towards one academic library being highlighted by the study, all the results have been aggregated. However Kuwait has several differences within other universities that western libraries do not feature, such as gender specific universities, and library collections of Arabic resources. These variables were not taken into account when collecting data based on university libraries, as only western style universities were analysed. This is representative of Kuwait universities as the majority of universities in Kuwait are Western style.

9.5 Generalisation of Research

The usefulness of this study lies primarily in the generalisation of the findings. The questionnaire and interview results have a wider applicability beyond the information gained about Kuwait university libraries.

The FALU model was designed based on ideas presented by different studies around the world and it was developed to investigate the effect of several factors related to the library on the achievement of the educational performance objectives of the university. For example, most academic libraries have a similar mission and vision that relates to providing information resources and services that support learning, teaching and education.

The FALU model's target users are any academic library aiming to improve services based on what the users want. It is proposed that FALU can work in low budget small academic libraries, to large well established and funded academic libraries. Traditional libraries and digital libraries could both utilise the FALU model. Also the researcher formalised and generalised the FALU model through the performance of five evaluation perspectives or factors underlying FALU of academic libraries (Training, Collection, Information Technology, Facilities and Equipment, and Library's Physical Environment).

9.5.1 Applicability outside Kuwait

The use of the FALU model outside Kuwait is possible in almost any culture or society. The FALU model is generic and does not focus on some cultural and linguistic aspects which occur in Arabic style universities. For example female only libraries are common in the Gulf States, and western universities may not be aware or understand the reasoning behind this. A good university library website is critical to keep Arabic female students satisfied with services, as many female students use distance learning as their primary method of studying.

Arabic collections are included in all Gulf State universities, with many students studying in Arabic. Western universities should consider this when aiming to improve Arabic student applicants.

The link between Islam and other countries also has an impact on student attendances and international students who attend universities. For example Malaysia

and Indonesia have large majority Muslim communities, which follow the same traditions and rules as those found in the Gulf States. Malaysia, although is not formally known as a Muslim country, does have a majority Muslim population. The current Prime minister of Malaysia has introduced a scheme of reinforcing Islamic thinking amongst the population, known as Islam hadhari (civilization Islam). The scheme aims to show the western world that a country can balance religion and economic growth, therefore Malaysia hopes to be a guide to the western world (Sardar, 2004). University admissions by Malaysians are subsidised only for 'Malay' residents. Under Malaysian law 'Malay' citizens must profess to follow Islam and be born in Malaysia. Malaysia has public and private universities, in the same style as Kuwait, although Malaysia has 20 public universities compared to Kuwait's one (My Government, 2011).

Indonesia also has a large Muslim community, similar to that of Malaysia. Indonesia has the largest Muslim population in the world, with 88% of 202million people being of Muslim faith. There are almost 400 universities in Indonesia, public and privately run, which use Islamic structure to teaching and regulations (Fahmi, 2007). The University of Indonesia is the largest in the country, and is equipped with a large and modern academic library, with a collection of approximately 4 million items.

The FALU model would be easily applied to either of these countries due to the similarities in teaching and possible personalities and desires students attending. Female only libraries are found in both of these countries, so females could show similar library usage patterns as the current study demonstrated. Muslim women are becoming a target market globally for universities due to the younger generation of females wanting high quality education, and aim to secure high salary positions in companies. Gokariksel and McLarney (2010) suggest that female Muslims have become a niche market and have various needs and desires which have to be met. Universities should take notice of some of these needs, for example female sections within libraries, which could increase international student attendances from Gulf State students and other Islamic countries.

9.6   Recommendations

According to the findings in the study, the researcher has found several areas of library services at the three Kuwaiti universities which would benefit through minor changes. These changes would help improve the usage of Kuwaiti academic libraries and reinforce the value academic libraries play in the university.

9.6.1 Recommendations for Library Improvements

Based on findings, which reflect the views of key stakeholders at three Kuwaiti universities, the researcher recommends taking the following points into consideration in order to improve library services and facilities for all users:

- Improvements could be made in the structure of library training courses provided. There needs to be more courses on offer, and they should be run at scheduled times each week/month. To increase training attendances, advertising using the IT systems should occur to inform more users.

- The libraries physical collection should always be relevant to its users. Regular "weeding" of the collection should take place to remove unused or irrelevant books from the collection. Questionnaires should be used to find out what gaps in the collection there are, and to fill these gaps accordingly. Examining book usage on the computer databases would enable the purchase of books which are frequently in use.

- Electronic resources require similar attention to the physical collection, and regular updates of programs and software. Making sure the material is available throughout the library is important, as well as online if possible.

- University libraries should provide flexible space for individual and group study as well as social activities. Moreover, services beyond the basic academic library services such as coffee shops and social areas should be offered. Designated areas for group discussion could be implemented but kept separate from quiet study areas.

- An academic library needs to offer a wide variety of IT facilities which meet the needs for different teaching and studying purposes. In addition, the library needs to provide users with different types of hardware and

software suitable for each type of study, e.g. high-end computers and professional software for creative projects.

9.6.2 Recommendations for Future Research

Future studies could be conducted in specific areas of library usage and examining the correlation between certain aspects could give library administrators greater insight into how the library is used.

- Library training is considered an important service, therefore investigating the difference between universities which have compulsory library training and universities with low levels of library training would highlight its worth. Examining the GPA of students who attend and complete compulsory information literacy training and assignment writing workshops, with users who have no training would be a worthwhile comparison to make. Using interviews and asking students if training has helped them in producing assignments or improved grades would suggest if training is a worthwhile task.

- Electronic resources are highlighted as an important service by library users. This raises the question for librarians and researchers, of whether users can rely entirely on a digital library to complete their studies. For this study, a user would not use the physical library services in anyway. This study would highlight how important a physical library actually is, because if it is possible for a student to complete a university degree from home then what is the purpose of funding a library?

- The relationship between female library users in the Gulf States should be examined further with questionnaires and interviews, as this is an important new topic within the Gulf. Investigating the link between usage times in mixed gender libraries with those exclusive to female users would offer an insight into the perceptions of female users in the Gulf. Very few studies have focused primarily on female library users in the Gulf States.

- The opening times in many Kuwaiti university libraries are limited and often based on Islamic worship times; therefore this limits many users study times, especially overseas students. Comparing user satisfaction in academic libraries which offer a 24 hour service to those which use limited opening

hours would prove the worth of having a 24 service available in libraries. Universities around the globe would find these cultural implications useful when trying to influence international students to attend their campus. Demonstrating respect for different cultures and religions can only have a positive effect on student applications.

9.7   Thesis Conclusion

Academic libraries around the world play a vital role in university education. The academic library is one of the key features of any university campus and is often the first service students and academics use when carrying out study or research. Informing administrators of the value an academic library has to the users is an important task. Investment is always required in academic libraries to keep the services relevant and up to date, changes should be embraced by library administration in order to keep the services modern and ahead of the competition.

Using PPP as a gauge of user perceptions of personal performance indicates how users feel when they attend the academic library to study. Kuwait has had very few studies conducted within the academic libraries, particularly regarding user perceptions. The idea of user satisfaction is not taken into account in Kuwait academic libraries, with very few surveys of satisfaction being carried out. However, this study reverses the trend by enhancing the understanding of perceptions and needs of library users at three Kuwaiti universities. Previously, due to the poor levels of library evaluation within Kuwait, many of the users' requests for improvements went unheard, especially with regard to information literacy.

Using models to provide guidelines for evaluation of libraries, the FALU model was designed with academic libraries as the area of primary focus. Using variables which apply directly to academic libraries enabled a full and thorough evaluation of some of the academic libraries within Kuwait. Adapting this model produced a refined version, which could be used for evaluation and lead to positive improvements within academic libraries around the world.

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Appendices

Appendix A: Survey Questionnaires (English Version)

SURVEY QUESTIONNAIRE 1 (STUDENTS)

This questionnaire is part of a Ph.D. dissertation and thus it is important that you read the questions carefully and answer them as accurately as possible. The results of this questionnaire will be used for academic research purposes only. Please answer all the questions and **do not leave any question unanswered**.

Your co-operation to complete this questionnaire is highly appreciated.

Ph.D Candidate

Awadh Alharbi

Demographic questions:

University:	
Faculty:	
School:	
College Year:	
Gender:	☐ Male ☐ Female

How often do you visit the library?

☐ Daily   ☐ 2 – 4 days a week ☐ Weekly ☐ Fortnightly

☐ Monthly   ☐ Rarely (i.e. few times a year) ☐ Never

How long do you spend in the library?

☐ Less than one hour   ☐ One hour   ☐ Two to four hours   ☐ Five hours and more

What is the purpose of library visiting?

☐ Reading textbooks

☐ Borrowing & returning

☐ Reading newspapers & magazines

☐ Studying

☐ Using internet for studying

☐ Using internet for social networks

☐ Meeting People

☐ Relaxing

☐ Others

What types of electronic resources do you need to access?

☐ E-books

☐ E-journals

☐ Web sites of government institutions

☐ Web sites of non government institutions

☐ E-theses & dissertation

☐ Web resources

☐ Databases

☐ E-newspapers

☐ Others

Part I. The following statements concern the library of your university. Use the following codes to select your answer.

SD = Strongly Disagree, **SA** = Strongly Agree, **N** = Neutral,
D = Disagree, **A** = Agree, **DK** = Don't know or Undecided

	Statement	**SD**	**D**	**N**	**A**	**SA**	**DK**
1.	**_IT Services_** The IT devices (computers, internet, etc.) that the library furnishes are of high quality and speed						
2.	The service of online search is friendly and can easily be accessed on-campus and off-campus						
3.	The library web page is friendly and includes all the information that I need to know about the services of the library						
4.	When I have a problem using any of the IT services, I find all the help I need from the library staff						
5.	**_Collection_** I find all what I need of references and resources in the library						
6.	The library contains a large number of resources either as print or e-material						
7.	The library is subscribed to major local and international journals and periodicals in my field						
8.	The library collection list is continuously updated to include new trends in research and learning material						
9.	**_Facilities and Equipment_** The facilities and equipment (e.g. printers, photocopy machines, meeting rooms , etc..) furnished by the library cover all the basic study needs of the library users						
10.	The photocopying and printing services are accessible and satisfactory						

11.	There are enough multimedia rooms and presentation rooms						
12.	The study facilities in the library including study rooms, meeting rooms, seminar rooms, ..etc. are accessible and suitable						
13.	*Training* The library offers adequate learning opportunities to its users to learn about its facilities and services, e.g. via online courses, seminars, workshops, exhibitions, …etc.						
14.	The library staff are well qualified and they offer their expertise to library users whenever needed						
15	Library provides trainings to improve my skills.						
16.	*Library Environment* The library provides quiet and comfortable environment for studying						
17.	The library is open for sufficient days at suitable hours						
18.	The furniture of the library including the desks, the chairs, and other supplies are relatively new and comfortable						

Part II. The following statements concern your experiences during your university life. Use the same coding as in Part I to select your answers.

	Statement	SD	D	N	A	SA	DK
1.	Academic training helps me develop critical thinking and the ability to judge the worth and validity of things and events						
2.	The library has a strong impact on my studies for example; I found the resources at library helpful						
3.	I always borrow items related to my study from the library						
4.	Visiting the library helps improve my grades						
5.	My teachers ask me to access resources which are available in the library						
6.	Most of my assignments end up requiring resources that I've found at the library						
7.	The library training has made me more confident in utilizing my academic skills for studying						
8.	I meet my classmates in the library to study individually, or as a group						
9.	I used the printing, copying and scanning resources at the library for my studies						
10.	Library environments are helpful for studying; for example, they are quiet and spacious						

Thank you for your co-operation

<h1 style="text-align:center"><u>SURVEY QUESTIONNAIRE 2 (ACADEMICS)</u></h1>

Dear Academics,

This questionnaire is part of a Ph.D. dissertation and thus it is important that you read the questions carefully and answer them as accurately as possible. The results of this questionnaire will be used for academic research purposes only. Please answer all the questions and **do not leave any question unanswered**.

Your co-operation to complete this questionnaire is highly appreciated.

Ph.D Candidate

Awadh Alharbi

Personal Data

University:	
Faculty:	
Gender:	☐ Male ☐ Female
Age:	☐ 20 - 30 ☐ 31 – 40 ☐ 41 - 50 ☐ 51 – 60 ☐ Over 61

How often do you visit the library?

☐ Daily   ☐ 2 – 4 days a week   ☐ Weekly   ☐ Fortnightly

☐ Monthly   ☐ Rarely (i.e. few times a year)   ☐ Never

What types of resources do you use?

☐ Textbooks

☐ Journals

☐ Databases

☐ Government documents

☐ Dissertations

☐ Newspapers

☐ Audio-visual materials

☐ Reports

☐ CDs

☐ Others

Part I. The following statements concern the library of your university. Use the following codes to select your answer.

SD = Strongly Disagree,   **SA** = Strongly Agree,   **N** = Neutral,

D = Disagree,   **A** = Agree,   **DK** = Don't know or Undecided

	Statement	SD	D	N	A	SA	DK
1.	***IT Services*** The IT devices (computers, internet, etc.) that the library furnishes are of high quality and speed						
2.	The service of online search is friendly and can easily be accessed on-campus and off-campus						
3.	The library web page is friendly and includes all the information that I need to know about the services of the library						
4.	When I have a problem using any of the IT services, I find all the help I need from the library staff						
5.	***Collection*** I find all what I need of references and resources in the library						
6.	The library contains a large number of resources either as print or e-material						
7.	The library is subscribed to major local and international journals and periodicals in my field						
8.	The library collection list is continuously updated to include new trends in research and learning material						

9.	**_Facilities and Equipment_** The facilities and equipment (e.g. printers, photocopy machines, meeting rooms, etc.) furnished by the library cover all the basic study needs of the library users						
10.	The photocopying and printing services are accessible and satisfactory						
11.	There are enough multimedia rooms and presentation rooms						
12.	The study facilities in the library including study rooms, meeting rooms, seminar rooms, ..etc. are accessible and suitable						
13.	**_Training_** The library offers adequate learning opportunities to its users to learn about its facilities and services, e.g. via online courses, seminars, workshops, exhibitions, …etc.						
14.	The library staff are well qualified and they offer their expertise to library users whenever needed						
15	Library provides training to improve my skills.						
16.	**_Library Environment_** The library provides quiet and comfortable environment for studying						
17.	The library is open for sufficient days at suitable hours						
18.	The furniture of the library including the desks, the chairs, and other supplies are relatively new and comfortable						

Part II. The following statements concern your experiences during your university life. Use the same coding as in Part I to select your answers.

	Statement	Never	Some-times	Often	Always	DK
1.	Overall the library provides satisfactory services for academics.					
2.	The library supports our curriculum.					
3.	The library supports our research.					
4.	The university cannot function efficiently without the academic library.					
5.	I recommended that my students should visit the library for various reasons.					
6.	I learned skills from the library training which I used in class.					
7.	Library training increases my work quality and output.					
8.	I visit the library for a variety of reasons.					
9.	I use the databases at the library for my work.					
10.	There is collaboration between the faculty and library.					

Thank you for your co-operation

SURVEY QUESTIONNAIRE 3 (ADMINISTRATORS)

Dear Administrators,

This questionnaire is part of a Ph.D. dissertation and thus it is important that you read the questions carefully and answer them as accurately as possible. The results of this questionnaire will be used for academic research purposes only. Please answer all the questions and **do not leave any question unanswered**.

Your co-operation to complete this questionnaire is highly appreciated.

Ph.D Candidate

Awadh Alharbi

Personal Data:

University:	
Faculty:	
Department:	
Gender:	☐ Male ☐ Female
Age:	☐ 18 – 30 ☐ 31 – 40 =2 ☐ 41 – 50 ☐ 50 – 60 =4 ☐ Over 61

How often do you visit the library?

☐ Daily   ☐ 2 – 4 days a week   ☐ Weekly   ☐ Fortnightly

☐ Monthly   ☐ Rarely (i.e. few times a year)   ☐ Never

Part I. The following statements concern the library of your university. Use the following codes to select your answer.

SD = Strongly Disagree,   **SA** = Strongly Agree,   **N** = Neutral,

D = Disagree,   **A** = Agree,   **DK** = Don't know or Undecided

	Statement	SD	D	N	A	SA	DK
1.	**_IT Services_** The IT devices (computers, internet,etc) that the library furnishes are of high quality and speed						
2.	The service of online search is friendly and can easily be accessed on-campus and off-campus						
3.	The library web page is friendly and includes all the information that I need to know about the services of the library						
4.	When I have a problem using any of the IT services, I find all the help I need from the library staff						
5.	**_Collection_** I find all what I need of references and resources in the library						
6.	The library contains a large number of resources either as print or e-material						
7.	The library is subscribed to major local and international journals and periodicals in my field						
8.	The library collection list is continuously updated to include new trends in research and learning material						
9.	**_Facilities and Equipment_** The facilities and equipment (e.g. printers, photocopy machines, meeting rooms,...etc) furnished by the library cover all the basic study needs of the library users						

10.	The photocopying and printing services are accessible and satisfactory						
11.	There are enough multimedia rooms and presentation rooms						
12.	The study facilities in the library including study rooms, meeting rooms, seminar rooms, ..etc. are accessible and suitable						
13.	***Training*** The library offers adequate learning opportunities to its users to learn about its facilities and services, e.g. via online courses, seminars, workshops, exhibitions, …etc.						
14.	The library staff are well qualified and they offer their expertise to library users whenever needed						
15	Library provides trainings to improve my skills.						
16.	***Library Environment*** The library provides quiet and comfortable environment for studying						
17.	The library is open for sufficient days at suitable hours						
18.	The furniture of the library including the desks, the chairs, and other supplies are relatively new and comfortable						

__Part II__. The following statements concern your experiences during your university life. Use the same coding as in Part I to select your answers.

	Statement	SD	D	N	A	SA	DK
1.	Overall, the library services meet the user's needs						
2.	I believe that the library improves the academic performance of students and academics						
3.	The library facilities are helpful for students and academics						
4.	The library equipment is valuable, modern and useful for users						
5.	The university should allocate more money to innovate and update the library						
6.	The library achieves its goals and aids the university with its own goals						
7.	Student grades improve due to the training students receive within the library						
8.	Training courses provided by the library help me to complete my work easier and with greater efficiency (IT training)						
9.	The library is vital in order for the university to function correctly						
10.	Training is sufficient for all library users						

Thank you for your co-operation

Semi-structured interview schedule 1 (students)

This interview is being undertaken to provide you with an opportunity to evaluate the performance of Kuwait university libraries and the perceived personal performance of university library on students. The results of this interview will remain confidential and participant anonymity will be maintained. Results will likewise help us identify the information needs of our clients, and the kinds of services clients want from the library and the staff. Data collected from this interview instrument will be used as a library management tool for strategic planning.

Opening Conversation:

1. What is your university?
2. What is your faculty?
3. What course are you studying at the moment?
4. How long have you been studying in your university?
5. How often do you visit the library per week?
6. Which of the following have you learned at the library? Please give examples where appropriate.

- Computer software packages (Word, PowerPoint, Excel, SPSS etc.)
- Information research skills (library catalogue use, academic writing etc.)
- Information retrieval and storage (Endnote etc.)
- Others (Please specify).

Open ended questions

General Questions:

1. Academic libraries often come under scrutiny due to the running costs of maintaining a library. As a student do you think that you could complete you degree without making use of any library services?

2. Libraries are often regarded as the primary location for student study and revision. Do you feel that the library has an impact on your overall academic performance regarding your grades?

3. University libraries are always trying to improve their services to meet user needs. They provide a place for students to do their research and advance their knowledge. So the library staff provide numerous services to these users, addressing their diverse needs, characteristics, and interests. As a student, what is your opinion about the services of your library?

4. What type(s) of information resources would be most useful for your assignments and research? Why?
   - Books
   - Journals
   - Databases
   - Government documents
   - Theses and dissertations
   - Conference proceedings
   - Audio-visual materials
   - Newspapers
   - Others (please specify)

Related Questions (independent variables):
1. Libraries provide many different types of services, for example library catalogue, print resources, electronic resources and library websites. Which services in your library do you use more than others, and why?

2. Library communication has become a focal point in university libraries around the world. The purpose of library communication is to increase the speed and quality of library services and to reduce the associated cost and frustration. For that reason, academic libraries attempt to provide many different ways of communicating for students such as face to face, phone, fax, email, SMS and newsletters. What kinds of communications do you use in your library?

3. Information technology (IT) services in university libraries have recently witnessed significant expansion of services provided to students, such as library networks, computer softwares, digital materials, online burrowing and so on. Thus, IT services have become one of the more important functions of the library at the moment. Are you satisfied with the IT services at your library?

4. Traditionally, academic libraries have tried to build a high-quality collection of print and electronic materials that are useful, cost effective and meet their user's needs, to ensure that their library collection helps students in their research and assignments. How well do the library's collections help you in your study needs?

5. All academic students need to receive information literacy skills training to support their study, to ensure improvement of their user skills, leading to their becoming more self-sufficient. Usually, training sessions cover searching skills and strategies, citation searching, research on the internet, access to specialist collections for specific subject areas, and information technology skills. Please tell me how satisfied you are with your library's training in information literacy?

6. Library environments have a major impact on encouraging positive library use. To ensure the academic library supports the learning environment for students, consideration should be given to resources, furniture and space for users, the layout and the distribution of the stock and equipment, the lighting and heating levels, the atmosphere and the decoration. All of these factors have impact on students. How do you find the environment of your library?

{Thank you very much for your time and cooperation}

Semi-structured interview schedule 2 (Academics)

This interview is being undertaken to provide you with an opportunity to evaluate the performance of Kuwait university libraries on academics. The results of this interview will remain confidential and participant anonymity will be maintained. Results will help us identify the information needs of our clients, and the kinds of services clients want from the library and the staff. Data collected from this interview instrument will be used as a library management tool for strategic planning.

Opening Conversation:

1. What is your university?
2. What are your faculty?
3. What course are you teaching at the moment?
4. How long have you been teach in your university?
5. As for the library, how often you visit the library per week?
6. What skills have you learned at the library?

- Computer
- Information skills
- Information retrieval and storage
- Others (Please specify)

Open ended questions

General Questions:

1. Academic libraries often come under scrutiny due to the running costs of maintaining a library. As an academic could you imagine a university functioning without an academic library?

2. Academic libraries are used by a wide variety of users to improve their knowledge and academic performance. Do you think the library has an impact on your teaching; does it improve the quality of your lectures?

3. University library are always trying to improve their services to meet user needs. It provides a place for students to do their research and advance their knowledge. So the librarians and library staff provide numerous services to these users, addressing their diverse needs, characteristics, and interests. As you are an academic, what is your opinion about the services of your library?

4. What type(s) of information resources would be most useful for the assignment? And can you tell me the reason(s)?

   - Books
   - Journals
   - Databases
   - Government document
   - Theses and dissertations
   - Conference proceeding
   - Audio-visual materials
   - Newspapers
   - Others (please specify)

Related Questions (independent variables):

1. Academic libraries seek to work with faculty members to facilitate students' access to information and to develop their study skills, for example working together to design assignments that teach students basic techniques, writing skills and library research skills to help them understand the process of conducting library research in different research tools. How well does your library support your faculty's programs? Please explain your answer.

2. Traditionally, academic libraries have tried to build a high-quality collection of print and electronic materials that are useful, cost effective and meet the user's needs. Also, library collection helps students for assignments. How well do the library's collections support your students in their studies?

3. As you know, faculty members can do much to improve learning and teaching levels, while librarians can provide suitable resources and technology to use them. To achieve these outcomes, faculty members and librarians should work together so that this relationship shares the responsibilities for the university

curriculum. What type of collaboration do you find between librarians and you as a faculty member? Can you please describe it?

4. Technology is changing the face of universities. Technology offers important tools to assist faculty members in their teaching and research, so that they are more technologically capable. Do you use technology in the classroom? If yes, what types of technology tools and how have they affected your teaching?

5. Library communication has become a focal point in university libraries around the world. The purpose of library communication is to increase the speed and quality of development and reduce the cost and frustration of this process. In that reason, academic libraries attempt to provide many different types of communication tools for students such as face to face, phone, fax, email, SMS and newsletters. What kinds of communication do you use to keep in contact with your university library?

{Thank you very much for your time and cooperation}

Semi-structured interview schedule 3 (Administrators)

This interview is being undertaken to provide you with an opportunity to evaluate the performance of Kuwait university libraries and the perceived personal performance of university library on administrators. The results of this interview will remain confidential and participant anonymity will be maintained. Results will help us identify the information needs of our clients, and the kinds of services clients want from the library and the staff. Data collected from this interview instrument will be used as a library management tool for strategic planning.

Opening Conversation:

1. What is your university?
2. What are your department?
3. What is your current position and how long have you worked at your university?
4. How often do you visit the library per week?
5. How does your department affect students and their education?

Open ended questions

General Questions:

1. Academic libraries often come under scrutiny due to the running costs of maintaining a library. As an administrator do you think that a university can function correctly without an academic library?

2. What type(s) of information resources would be most useful to support your work? Why?
   - Books
   - Journals
   - Databases
   - Government document
   - Theses and dissertations
   - Conference proceeding
   - Audio-visual materials
   - Newspapers
   - Others (please specify)

Related Questions (independent variables):

1. As the link between libraries and higher education is essential, university administrators need to encourage this link to ensure that their students gain a high quality of knowledge. University administrators need to support libraries in their joint role with faculty members all acting together to achieve the objectives and goals of their university. Please tell me how well you feel that your university library achieves your university's objectives and goals?

2. Several studies in the library and information literature suggest that good relations between administrators and library staff may be the most important factor in determining support for libraries. What kind of cooperation do you find at your university between the librarians and the members of your department?

3. University administrators need to be aware of their university library environment.

   What are your perceptions of your library environment, for example regarding the library staff, the library facilities, the library furniture and the space for users?

4. To improve the performance of university libraries, university administrators need to support librarians in their library management, for example with collection development and information technology. Can you tell me please how you would improve the role of your library?

5. Do you think there is a relationship between your library and the quality of higher education produced at your university?

{Thank you very much for your time and cooperation}

Appendix C:
Survey Questionnaires (Arabic Version)
SURVEY QUESTIONNAIRE 1 (STUDENTS)

<div dir="rtl">

استبيان الطالب

(Arabic Version)

عزيزي الطالب:

الهدف من هذا الاستبيان علمي بحت وهو أنه جزء من التحضير لأطروحة الدكتوراة عن دور المكتبات الجامعية. لذلك فإن من الأهمية بمكان الحرص على قراءة الأسئلة بعناية ثم الإجابة عليها بدقة حتى نحصل على نتائج سليمة. كما نرجو منكم **الإجابة على جميع الأسئلة** وعدم ترك أي منها من غير إجابة.

شاكرين لكم حسن تعاونكم.

أخوكم / عوض الحربي

طالب دكتوراة

بيانات شخصية.

	الجامعة:
	الكلية:
	القسم العلمي:
	السنة الدراسية:
☐ ذكر ☐ أنثى	الجنس:

● **ما هو معدل ارتيادك للمكتبة بشكل عام؟**

	يوميا
	يومين الى اربعه ايام في الاسبوع
	اسبوعيا
	مرتين في الشهر
	شهريا

</div>

نادرا	
ابدا	

- **كم من الوقت تستغرقه عند زيارتك للمكتبه ؟**

اقل من ساعه	
ساعه واحده	
من ساعتين الى اربع ساعات	
خمس ساعات او اكثر	

- **ما هو الهدف من زيارتك للمكتبه ؟**

لقراءه كتب تتعلق بالدراسه	
للاستعاره	
لقراءه الجرائد و المجلات	
للدراسه	
استخدام الانترنت للدراسه	
استخدام الانترنت لأمور شخصيه	
مقابله احد الاشخاص	
للاستراحه	
اشياء اخرى	

- **ما هو نوع المواد الاكترونيه التي تستخدمها في المكتبه ؟**

الكتب الاكترونيه	
المجلات العلميه الاكترونيه	
مواقع الاكترونيه حكوميه	
مواقع الاكترونيه غير حكوميه	
رسائل الماجستير والدكتوراه الاكترونيه	
محركات بحث	
قواعد معلومات	
الجرائد الاكترونيه	
اشياء اخرى	

لا أعلم أو لا ينطبق	أعارض بشدة	أعارض	محايد	أوافق	أوافق بشدة	العبــــــــــارة	
						اجهزة نظم المعلومات (الكمبيوتر، الانترنت، ...الخ) في المكتبة ذات نوعية و سرعة عالية	1.
						خدمة البحث الآلي بالانترنت سهل الاستخدام وسهل الدخول عليه سواء من داخل الجامعة أو من خارجه	2.
						الموقع الالكتروني للمكتبة سهل الاستخدام و يحتوي على جميع المعلومات المتعلقة بخدمات المكتبة	3.
						حين تواجهني مشكلة ما في استخدام أي من نظم المعلومات في المكتبة فإن طاقم المكتبة يقدمون لي كل مساعدة ممكنة	4.
						أجد في المكتبة كل ما أحتاجه من مراجع وموارد	5.
						تضم المكتبة عددا كبيرا من المراجع سواء المطبوعة منها أو الالكترونية	6.
						لدى المكتبة اشتراكات في المراجع والدوريات الرئيسية في حقل تخصصي	7.
						قائمة مؤلفات المكتبة يتم تحديثها بصورة مستمرة لتضم الاتجاهات الجديدة في البحث وكذلك المواد التعليمية	8.
						الأجهزة والمرافق (أجهزة التصوير والطباعة وقاعات الاستذكار ..الخ) التي توفرها المكتبة تفي بكافة الحاجات الرئيسية لمستخدمي المكتبة فيما يخص الاستذكار	9.
						خدمات الطباعة والتصوير في المكتبة في متناول الجميع وبمستوى جيد	10.
						المكتبه لديها عدد كافي الوسائط المتعددة و قاعات التدريس	11.
						أماكن الاستذكار في المكتبة بما في ذلك قاعات الاستذكار وقاعات المحاضرات .. الخ في متناول الجميع وبصورة مناسبة	12.
						تقدم المكتبة برامج تعريفية ملائمة لمستخدميها لكي يتعرفوا على مرافقها وخدماتها من خلال المقررات الآلية، أو المحاضرات، أو الدورات، أو المعارض	13.
						القائمون على المكتبة مؤهلون بشكل جيد ويقدمون خبراتهم لمستخدمي المكتبة متى ما احتاجوا إلى ذلك	14.
						المكتبه تقدم دورات تدريبيه تطور مهاراتي	15.
						توفر المكتبة جوا هادئا ومريحا للاستذكار	16.
						تفتح المكتبة أبوابها لأيام كافية وفترات مناسبة	17.
						اثاث المكتبه كالطاولات و الكراسي مريح جدا	18.

أجب على الأسئلة الآتية من خلال تجربتك الجامعية الشخصية:

لا أعلم أو لا رأي	غير موافق بشدة	غير موافق	محايد	موافق	موافق بشدة	العبـــــــــــــارة	
						التمارين الاكاديميه تساعدني في التحليل المنطقي و تجعلني اكثر قدره على تحليل الاشياء و الاحداث.	1.
						المكتبه لها تاثير قوي على دراستي على سبيل المثال اجد بها المصادر الدراسيه المناسبه.	2.
						اقوم باستعارة بعض الكتب من المكتبه بشكل دائم.	3.
						زيارة المكتبه تؤدي الى رفع التحصيل الدراسي للطالب.	4.
						بعض المدرسين ينصحون الطلبه لزيارة المكتبه و تصفح المصادر المتوفره.	5.
						اغلب المصادر الدراسية في البحوث التي اقوم بها هي من المكتبه الجامعيه.	6.
						التمارين الموجوده في المكتبه اعطتني الثقه في استخدام المكتبه بشكل مفيد.	7.
						اقابل زملائي الطلبه في المكتبه و ندرس بشكل فردي أو جماعي.	8.
						استخدم الطابعه و آله التصوير و الماسح داخل المكتبه.	9.
						بيئة المكتبه تعتبر جو مناسب للدراسة.	10.

شكرا لتعاونكم

SURVEY QUESTIONNAIRE 2 (ACADEMICS)

استبيان الأكاديميين

(Arabic Version)

عزيزي عضو هيئة التدريس:

الهدف من هذا الاستبيان علمي بحت وهو جزء من التحضير لأطروحة الدكتوراه عن دور المكتبات الجامعية. لذلك فإن من الأهمية بمكان الحرص على قراءة الأسئلة بعناية ثم الإجابة عليها بدقة حتى نحصل على نتائج سليمة. كما نرجو منكم **الإجابة على جميع الأسئلة** وعدم ترك أي منها من غير إجابة.

شاكرين لكم حسن تعاونكم.

أخوكم / عوض الحربي

طالب دكتوراه

بيانات شخصية:

		الجامعة:
		الكلية:
☐ ذكر	☐ أنثى	الجنس:
☐ 20 - 30	☐ 31 – 40	☐ 41 - 50	العمر:
☐ اكثر من 61	☐ 51 – 60		

• ما هو معدل ارتيادك للمكتبة بشكل عام؟

	يوميا
	يومين الى اربعه ايام في الاسبوع
	اسبوعيا
	مرتين في الشهر
	شهريا
	نادرا
	ابدا

● ما هو نوع المواد الاكترونيه التي تستخدمها في المكتبة ؟

	الكتب
	المجلات العلميه
	قواعد المعلومات
	مصادر حكوميه
	رسائل الماجستير والدكتوراه
	الجرائد الاكترونيه
	مصادر سمعية و بصرية
	تقارير
	الاقراص المضغوطه CDs
	اشياء اخرى

لا أعلم أو لا ينطبق	أعارض بشدة	أعارض	محايد	أوافق	أوافق بشدة	العبــــــــــارة	
						اجهزة نظم المعلومات (الكمبيوتر، الانترنت، ...الخ) في المكتبة ذات نوعية و سرعة عالية	1.
						خدمة البحث الآلي بالانترنت سهل الاستخدام وسهل الدخول عليه سواء من داخل الجامعة أو من خارجه	2.
						الموقع الالكتروني للمكتبة سهل الاستخدام و يحتوي على جميع المعلومات المتعلقة بخدمات المكتبة	3.
						حين تواجهني مشكلة ما في استخدام أي من نظم المعلومات في المكتبة فإن طاقم المكتبة يقدمون لي كل مساعدة ممكنة	4.
						أجد في المكتبة كل ما أحتاجه من مراجع وموارد	5.
						تضم المكتبة عددا كبيرا من المراجع سواء المطبوعة منها أو الالكترونية	6.
						لدى المكتبة اشتراكات في المراجع والدوريات الرئيسية في حقل تخصصي	7.
						قائمة مؤلفات المكتبة يتم تحديثها بصورة مستمرة لتضم الاتجاهات الجديدة في البحث وكذلك المواد التعليمية	8.
						الأجهزة والمرافق (أجهزة التصوير والطباعة وقاعات الاستذكار ..الخ) التي توفرها المكتبة تفي بكافة الحاجات الرئيسية لمستخدمي المكتبة فيما يخص الاستذكار	9.
						خدمات الطباعة والتصوير في المكتبة في متناول الجميع وبمستوى جيد	10.
						المكتبه لديها عدد كافي الوسائط المتعددة و قاعات التدريس	11.
						أماكن الاستذكار في المكتبة بما في ذلك قاعات الاستذكار وقاعات المحاضرات .. الخ في متناول الجميع وبصورة مناسبة	12.
						تقدم المكتبة برامج تعريفية ملائمة لمستخدميها لكي يتعرفوا على مرافقها وخدماتها من خلال المقررات الآلية، أو المحاضرات، أو الدورات، أو المعارض	13.
						القائمون على المكتبة مؤهلون بشكل جيد ويقدمون خبراتهم لمستخدمي المكتبة متى ما احتاجوا إلى ذلك	14.
						المكتبه تقدم دورات تدريبيه تطور مهاراتي	15.
						توفر المكتبة جوا هادئا ومريحا للاستذكار	16.
						تفتح المكتبة أبوابها لأيام كافية وفترات مناسبة	17.
						اثاث المكتبه كالطاولات و الكراسي مريح جدا	18.

أجب على الأسئلة الآتية من خلال تجربتك الجامعية الشخصية.

لاأعرف أو لاينطبق	أعارض بشده	أعارض	محايد	أوافق	أوافق بشده	العبـــــــــارة	
						بشكل عام الخدمات التي تقدمها المكتبه تعتبر جيده بالنسبة لاعضاء هيئه التدريس.	.1
						المكتبه توفر بعض المصادر للمناهج الدراسية التي اقوم بتدريسها.	.2
						المكتبه توفر بعض المصادر للمناهج الدراسية التي تساعدني على البحث الدراسي.	.3
						لا يمكن للجامعه ان تستغني عن المكتبه	.4
						دائما اوصي الطلبه على زيارة المكتبه و الاستفاده من خدماتها.	.5
						اتعلم بعض المهارات الاكاديميه من التمارين التي تقدمها المكتبه.	.6
						التمارين المكتبيه تطور مهاراتي في العمل.	.7
						اقوم بزيارة المكتبه لاكثر من سبب.	.8
						اقوم باستخدام قواعد البيانات الخاص بالمكتبه للبحث عن بعض المصادر.	.9
						هناك تعاون بين اعضاء هيئه التدريس و امناء المكتبات.	.10

شكرا لتعاونكم

SURVEY QUESTIONNAIRE 3 (ADMINISTRATORS)

استبيان الإداريين

(Arabic Version)

عزيزي الاداري:

الهدف من هذا الاستبيان علمي بحت وهو جزء من التحضير لأطروحة الدكتوراة عن دور المكتبات الجامعية. لذلك فإن من الأهمية بمكان الحرص على قراءة الأسئلة بعناية ثم الإجابة عليها بدقة حتى نحصل على نتائج سليمة. كما نرجو منكم **الإجابة على جميع الأسئلة** وعدم ترك أي منها من غير إجابة.

شاكرين لكم حسن تعاونكم.

أخوكم / عوض الحربي

طالب دكتوراة

البيانات شخصية:

		الجامعة:
		الكلية:
☐ ذكر	☐ أنثى	الجنس:
☐ 20 - 30	☐ 31 – 40	☐ 41 - 50	العمر:
☐ اكثر من 61	☐ 51 – 60	

• ما هو معدل ارتيادك للمكتبة بشكل عام؟

	يوميا
	يومين الى اربعه ايام في الاسبوع
	اسبوعيا
	مرتين في الشهر
	شهريا
	نادرا
	ابدا

لا أعلم أو لا ينطبق	أعارض بشدة	أعارض	محايد	أوافق	أوافق بشدة	العبــــــــــارة	
						اجهزة نظم المعلومات (الكمبيوتر، الانترنت، ...الخ) في المكتبة ذات نوعية و سرعة عالية	1.
						خدمة البحث الآلي بالانترنت سهل الاستخدام وسهل الدخول عليه سواء من داخل الجامعة أو من خارجه	2.
						الموقع الالكتروني للمكتبة سهل الاستخدام و يحتوي على جميع المعلومات المتعلقة بخدمات المكتبة	3.
						حين تواجهني مشكلة ما في استخدام أي من نظم المعلومات في المكتبة فإن طاقم المكتبة يقدمون لي كل مساعدة ممكنة	4.
						أجد في المكتبة كل ما أحتاجه من مراجع وموارد	5.
						تضم المكتبة عددا كبيرا من المراجع سواء المطبوعة منها أو الالكترونية	6.
						لدى المكتبة اشتراكات في المراجع والدوريات الرئيسية في حقل تخصصي	7.
						قائمة مؤلفات المكتبة يتم تحديثها بصورة مستمرة لتضم الاتجاهات الجديدة في البحث وكذلك المواد التعليمية	8.
						الأجهزة والمرافق (أجهزة التصوير والطباعة وقاعات الاستذكار ..الخ) التي توفرها المكتبة تفي بكافة الحاجات الرئيسية لمستخدمي المكتبة فيما يخص الاستذكار	9.
						خدمات الطباعة والتصوير في المكتبة في متناول الجميع وبمستوى جيد	10.
						المكتبه لديها عدد كافي الوسائط المتعددة و قاعات التدريس	11.
						أماكن الاستذكار في المكتبة بما في ذلك قاعات الاستذكار وقاعات المحاضرات .. الخ في متناول الجميع وبصورة مناسبة	12.
						تقدم المكتبة برامج تعريفية ملائمة لمستخدميها لكي يتعرفوا على مرافقها وخدماتها من خلال المقررات الآلية، أو المحاضرات، أو الدورات، أو المعارض	13.
						القائمون على المكتبة مؤهلون بشكل جيد ويقدمون خبراتهم لمستخدمي المكتبة متى ما احتاجوا إلى ذلك	14.
						المكتبه تقدم دورات تدريبيه تطور مهاراتي	15.
						توفر المكتبة جوا هادئا ومريحا للاستذكار	16.
						تفتح المكتبة أبوابها لأيام كافية وفترات مناسبة	17.
						اثاث المكتبه كالطاولات و الكراسي مريح جدا	18.

أجب على الأسئلة الآتية من خلال تجربتك الجامعية الشخصية:

لاأعرف أو لاينطبق	دائما	غالبا	أحيانا	نادرا	العبـــــــــــارة	
					بشكل عام الخدمات التي تقدمها المكتبه تعتبر جيده و تحضى بقبول المستفيدين .	1.
					انا اؤمن بأن المكتبه لها دور كبير في تطوير العمليه التعليميه	2.
					الادوات و المعدات الموجوده في المكتبه تساعد الطلبه و الاكاديميين.	3.
					المعدات الموجوده في المكتبه تعتبر قيمه و حديثه.	4.
					الجامعه تدعم المكتبه ماديا لتطويرها ليستفيد منها الطلبه.	5.
					المكتبه تحقق الاهداف الجامعيه و التي انشئت من اجلها.	6.
					المكتبه لها دور واضح في تحسين المستوى التحصيلي للطلبه.	7.
					المكتبه تقدم تمارين مناسبه للادراايين في تطوير بعض المهارات.	8.
					اجد ان المكتبه مهمه جدا بالنسبه للجامعه بشكل عام.	9.
					التمارين المكتبيه لها دور فعال لتطوير مهارات الطلبه.	10.

شكرا لتعاونكم

Appendix D:
Semi-structured interviews (Arabic Version)

Semi structured interview (Student)

<u>مقابلات شخصيه للطلبة</u>

عزيزي الطالب:

يهدف هذا الاستبيان إلى معرفه التأثيرات بكل أشكالها وأنواعها وأبعادها التي من شأنها أن تقع على الطالب من قبل المكتبات الجامعية في الكويت سواء كانت هذه التأثيرات من الخدمات المقدمة أو المجموعات المكتبية أو المهارات أو الاجهزه الموجودة داخل المكتبة ونتائج هذا الاستبيان سوف تنعكس إيجابا على أداء مكتبات جامعه الكويت بكل فروعها . كذلك نستطيع من خلال هذا الاستبيان تطوير وارتقاء أداء المكتبات.

لذا أرجو من جميع الطلبة قراءه الاسئله بشكل جيد وأن تكون الإجابات دقيقه حتى نتمكن من الحصول على نتائج حقيقية.

شاكرين لكم حسن تعاونكم

للاستفسار:**awad_h70@hotmail.c**om

00965- 99406409

أسئله عامه:

1. ماهو اسم الجامعة التي تدرس بها ؟

2. ماهو قسمك العلمي ؟

3. ماهو التخصص العلمي الذي تقوم بدراسته حاليا ؟

4. كم المدة الدراسية التي قضيتها الى الآن ؟

5. كم مرة تزور المكتبة خلال الاسبوع ؟

6. ماذا تعلمت من المكتبة من مهارات او معلومات قد تفيدك في دراستك ؟

على سبيل المثال:

أ. بعض برامج الكمبيوتر (برنامج الوورد , برنامج الاكسل , برنامج الباور بوينت , برنامج الأحصائي للعلوم الاجتماعية الى آخره)

ب. مهارات البحث عن المعلومات (استخدام فهرس المكتبه سواء الآلي أو المطبوع , تعلم مهارات الكتابة)

ج. إدخال و استخراج المعلومات (إستخدام برامج الفهرسة و التصنيف)

د. أخرى (ارجو ذكرها)

أسئله مفتوحة للطلبة المشاركين:

1. المكتبات الجامعية تحرص عادة على تطوير خدماتها حتى تتناسب مع متطلبات المستفيدين, لذلك تعتبر المكان المناسب بالنسبة للطالب للحصول على المعلومات الدراسية التي ينشدها. ويقوم أمناء المكتبات ايضا بتوفير عدد من الخدمات التي يحتاجها جميع شرائح المستفيدين. من هذا المنطلق اود ان اسألك ماهو رأيك في الخدمات التي تقدمها المكتبة للطلاب؟

2. ما هي مصادر المعلومات الاكثر استخداما بالنسبة لك مع ذكر الاسباب؟

كتب
مجلات علميه
قواعد معلومات
مصادر حكوميه
رسائل جامعية
أعمال مؤتمرات
مواد سمعية وبصرية
جرائد
أخرى (أرجو التحديد إذا أمكن)

أسئلة متعلقة بالبحث :

1. المكتبة الجامعية تقدم عدد متنوع من الخدمات على سبيل المثال خدمة الفهرس والمصادر المطبوعة والالكترونية و الموقع الالكتروني للمكتبة وخدمات أخرى تفيد الطلبة. ما هي الخدمة الاكثر استخداماً والتي تشعر انها أكثر فائدة من غيرها من الخدمات وهل لك ان تشرح ذلك؟

2. وسائل الاتصال الموجودة في المكتبة تعتبر غاية في الاهميه كونها تقوم بتفعيل دور المكتبة و تسهيل الوصول الى المعلومات بسرعه, لهذا السبب تحرص المكتبة على توفير وسائل اتصال متنوعة حتى تكون المكتبة في متناول المستفيدين في كل وقت ومكان منها على سبيل المثال ارقام الهواتف, الفاكس, الايميل,الكتيّبات الارشادية. ما هي وسيلة الاتصال التي تستخدمها عادةً للاستعلام عن مصدر أو خدمة في المكتبة؟

3. في السنوات الأخيرة أصبحت خدمة تكنولوجيا المعلومات من الخدمات المتوفرة بشكل كبير في المكتبات الاكاديمية كأحد ركائز التعليم الجامعي مثل خدمة الحاسب الآلي و البرمجيات, المواد الرقمية, وخدمة الاستعارة الآلية وغيرها من الخدمات التي تدخل في نطاق التكنلوجيا. **ماهو مستوى رضائك عن خدمة تكنولوجيا المعلومات الموجوده في مكتبتك؟** مع شرح مبسط على ذلك.

4. تظم مكتبتك الجامعية على العديد من المجموعات المكتبية سواء كانت مطبوعة أو الكترونية, وسائل سمعية و بصرية قواعد معلومات, رسائل ماجستير و دكتوراه أو مطبوعات حكومية وغيرها لتوفير كل ما يلزم من مصادر تساعد الطلبة على تحصيلهم العلمي.**الى أي مدى تقوم المجموعات المكتبية بمساعدة الطلبة في الحصول على المعلومات التي يريدونها؟**. أرجو ان تشرح لنا ذلك

5. أغلب المكتبات الجامعية تقوم بتقديم برامج أو دورات لتدريب الطلبة على كيفية استخدام المكتبة والتي من خلالها يتعلم الطلبة كيفية استخراج و تخزين المعلومات, كيفية استخدام الحاسب الآلي للوصول الى المصادر المطلوبة أو عملية توثيق المعلومات, وغيرها من الدورات والبرامج التي من شأنها تطوير مهارات الطلبة ليتمكن من تحصيله العلمي بشكل افضل. **ماهو رأيك في الدورات والبرامج التي تقدمها مكتبتك للطلبة مع ذكر أي برنامج او دورة تمت المشاركة بها وتقييمك لتلك الدورة؟**

6. البيئة المكتبية او كما يسميها البعض الجو العام للمكتبة لهو تأثير قوي جداً على الطالب سواء كان ايجابياً أو سلبياً, لذلك فأن المكتبات الجامعية تحاول ان توفر البيئة المناسبة و المريحة للطالب كاختيار موقع المكتبة بالنسبة للجامعة, الأثاث المريح و المخصص للمكتبات, الاضاءة الجيدة, التكييف التدفئة المناسبين وغيرها من الامور التي تهيئ البيئة المناسبة للطالب فمن المهم أن نسألك **ماهو رأيك في البيئة المكتبية مع الشرح؟**

شكراً جزيلاً على تعاونك معنا

Semi-structured interview schedule 1 (Academics)
مقابلات شخصيه لأعضاء هيئة التدريس

(Arabic Version)

عزيزي عضو هيئة التدريس:

يهدف هذا الاستبيان إلى معرفه التأثيرات بكل أشكالها وأنواعها وأبعادها التي من شأنها أن تقع على عضو هيئة التدريس من قبل المكتبات الجامعية في الكويت سواء كانت هذه التأثيرات من الخدمات المقدمة أو المجموعات المكتبية أو المهارات أو الاجهزه الموجودة داخل المكتبةونتائج هذا الاستبيان سوف تنعكس إيجابا على أداء مكتبات جامعه الكويت بكل فروعها كذلك نستطيع من خلال هذا الاستبيان تطوير وارتقاء أداء المكتبات.

لذا أرجو من جميع الأكاديميين قراءه الاسئله بشكل جيد وأن تكون الإجابات دقيقه حتى نتمكن من الحصول على نتائج حقيقية.

شاكرين لكم حسن تعاونكم

للاستفسارawad_h70@hotmail.com
00965- 99406409

أسئله عامه:

1. ماهو اسم الجامعة التي تدرس بها ؟

2. ماهو قسمك العلمي ؟

3. ماهو التخصص العلمي الذي تقوم بدراسته حاليا ؟

4. كم المدة الدراسية التي قضيتها الى الآن ؟

5. كم مرة تزور المكتبة خلال الاسبوع ؟

6. ماذا تعلمت من المكتبة من مهارات او معلومات قد تفيدك في دراستك ؟

على سبيل المثال:

أ. بعض برامج الكمبيوتر (برنامج الوورد , برنامج الاكسل , برنامج الباور بوينت , برنامج الأحصائي للعلوم الاجتماعية الى آخره)

ب. مهارات البحث عن المعلومات (استخدام فهرس المكتبه سواء الآلي أو المطبوع , تعلم مهارات الكتابة)

ج. إدخال و استخراج المعلومات (إستخدام برامج الفهرسة و التصنيف)

د. أخرى (ارجو ذكرها)

أسئلة مفتوحة لأعضاء هيئة التدريس المشاركين:

1.غالبا ما تقدم الجامعات الدعم المالي للمكتبات لكي تحقق الأهداف التي انشئت من اجله, ويرى البعض أن من الأفضل أن تستثمر الأموال التي تصرف على المكتبة الى جهات علمية أكثر فائدة, **أنت كعضو هيئة تدريس هل تعتقد أن الجامعة ممكن أن تتحقق أهدافها الأكاديمية من غير وجود المكتبة؟**

2.المكتبات الأكاديمية لها استخدامات عديدة قد تؤدى بالمستخدمين الى تطوير آفاق معرفتهم وأدائهم الأكاديمي. **هل تعتقد أن المكتبة تؤثر على أدائك التدريسي مما تؤدي الى ارتفاع جودة أدائك في المحاضرة؟**

3.المكتبات الجامعية تحرص عادة على تطوير خدماتها حتى تتناسب مع متطلبات المستفيدين, لذلك تعتبر المكان المناسب بالنسبة للطالب للحصول على المعلومات الدراسية التي ينشدها. ويقوم أمناء المكتبات ايضا بتوفير عدد من الخدمات التي يحتاجها جميع شرائح المستفيدين. من هذا المنطلق اود ان اسألك **ماهو رأيك في الخدمات التي تقدمها المكتبة لعضو هيئة التدريس؟**

4. ما هي مصادر المعلومات الاكثر استخداما بالنسبة لك مع ذكر الاسباب؟

كتب
مجلات علميه
قواعد معلومات
مصادر حكوميه
رسائل جامعية
أعمال مؤتمرات
مواد سمعية وبصرية
جرائد
أخرى (أرجو التحديد إذا أمكن)

أسئلة متعلقة بالبحث :

1. تحرص المكتبات الأكاديمية على العمل المشترك ما بينها وبين أعضاء هيئة التدريس لما لديهم من خبرة على توفير المعلومات التي قد يحتاجها الطالب وتؤدي به الى تحقيق احتياجاته الدراسية, على سبيل المثال العمل معا (عضو هيئة التدريس- أمين المكتبة) لتصميم بعض الارشادات التي تساعد الطالب على معرفة أساسيات كتابة البحوث العلمية أو مهارات الكتابة الأكاديمية. **من وجهة نظرك الى أى درجة تقوم المكتبة بدعم البرامج أو الدروس التي يقدمها القسم العلمي بشكل جماعي أو أعضاء هيئة التدريس بشكل فردي؟**

2.من الطبيعي أن تسعى المكتبة الى بناء مجموعتها المكتبية بشكل عالي الجودة وتحديثها بشكل مستمر سواء المطبوعة أو الألكترونية منها, وتحاول أيضا أن تكون هذه المجموعات المكتبية تناسب احتياجات المستفيدين وخاصة الطلبة. من خلال خبرتك كعضو هيئة تدريس **ما هو رايك بالمجموعات المكتبية الموجودة حالياً وهل ترى أنها تخدم الطلبة الذين تقوم بتدريسهم؟**

3.كما تعرف أن أعضاء هيئة التدريس بامكانهم تطوير مستواهم العلمي, عندما يقوم أمناء المكتبات ومن لديهم الخبرة في التدريب على استخدام التكنولوجيا ويرى البعض أن من الأفضل أن يكون هناك تعاون بين أمناء المكتبات وأعضاء هيئة التدريس لتبادل الخبرات بما يخدم المنهج الدراسي. من هذا المنطلق **هل هناك تعاون بينكم قد يؤدي الى فائدة علمية يستفيد منها الطرفين؟**

4.من المعروف أن التكنولوجيا الحديثة قد غيرت شكل الجامعات في جميع المستويات لما توفره من امكانات عالية الدقة والسرعة قد يستفيد منها عضوهيئة التدريس في تطوير مهاراته في التدريس أو البحث العلمي. هل تستخدم التكنولوجيا داخل المحاضرة, اذا كان كذلك **ما هو نوع تلك التكنولوجيا المستخدمة وكيف تشعر عند استخدامها مقارنةً بالطريقة التقليدية؟**

5.عملية الاتصال بالمكتبة لها دور فعال حيث تربط المكتبة الأكاديمية بالعالم من حولنا, والهدف من ذلك هو توفير السرعة والجودة في الحصول على المعلومة. لهذا السبب تحاول المكتبة توفير أنواع مختلفة من أدوات الأتصال حتى تُشعر المستفيد أنه قريب جداً ويتواصل مع المكتبة بشكل دائم منها الهاتف والفاكس والبريد الالكتروني والرسائل الاكترونية والنشرات. **ما هو نوع وسيلة الاتصال التى تستخدمها للتواصل مع المكتبة ولماذا؟**

شكراً جزيلاً على تعاونك معنا

Semi-structured interview schedule 3 (Administrators)
مقابلات شخصيه للاداريين

(Arabic Version)

عزيزى الادراري:

يهدف هذا الاستبيان إلى معرفه التأثيرات بكل أشكالها وأنواعها وأبعادها التي من شأنها أن تقع على الاداري من قبل المكتبات الجامعية في الكويت سواء كانت هذه التأثيرات من الخدمات المقدمة أو المجموعات المكتبية أو المهارات أو الاجهزه الموجودة داخل المكتبة ونتائج هذا الاستبيان سوف تنعكس إيجابا على أداء مكتبات جامعه الكويت بكل فروعها . كذلك نستطيع من خلال هذا الاستبيان تطوير وارتقاء أداء المكتبات.

لذا أرجو من جميع الاداريين قراءه الاسئله بشكل جيد وأن تكون الإجابات دقيقه حتى نتمكن من الحصول على نتائج حقيقية.

شاكرين لكم حسن تعاونكم

للاستفسار: **awad_h70@hotmail.c**om

00965- 99406409

أسئله عامه:

1. ماهو اسم الجامعة التي تدرس بها ؟

2. ماهو قسمك العلمي ؟

3. ماهو التخصص العلمي الذي تقوم بدراسته حاليا ؟

4. كم المدة الدراسية التي قضيتها الى الآن ؟

5. كم مرة تزور المكتبة خلال الاسبوع ؟

6. ماذا تعلمت من المكتبة من مهارات او معلومات قد تفيدك في دراستك ؟

على سبيل المثال:

أ. بعض برامج الكمبيوتر (برنامج الوورد , برنامج الاكسل , برنامج الباور بوينت , برنامج الأحصائي للعلوم الاجتماعية الى آخره)

ب. مهارات البحث عن المعلومات (استخدام فهرس المكتبه سواء الآلي أو المطبوع , تعلم مهارات الكتابة)

ج. إدخال و استخراج المعلومات (إستخدام برامج الفهرسة و التصنيف)

د. أخرى (ارجو ذكرها)

أسئله مفتوحة للطلبة المشاركين:

1. المكتبات الجامعية تحرص عادة على تطوير خدماتها حتى تتناسب مع متطلبات المستفيدين, لذلك تعتبر المكان المناسب بالنسبة للطالب للحصول على المعلومات الدراسية التي ينشدها. ويقوم أمناء المكتبات ايضا بتوفير عدد من الخدمات التي يحتاجها جميع شرائح المستفيدين. من هذا المنطلق اود ان اسألك **ماهو رأيك في الخدمات التي تقدمها المكتبة للطلاب؟**

2. ما هي مصادر المعلومات الاكثر استخداما بالنسبة لك مع ذكر الاسباب؟

كتب
مجلات علميه
قواعد معلومات
مصادر حكوميه
رسائل جامعية
أعمال مؤتمرات
مواد سمعية وبصرية
جرائد
أخرى (أرجو التحديد إذا أمكن)

أسئلة متعلقة بالبحث :

1. بما أن هناك علاقة أساسية بين المكتبة وبين الأهداف الأكاديمية لكل جامعة أو كلية. لهذا السبب اداريىى الجامعة لا بد أن يكون لهم دور في تشجيع تلك العلاقة للوصول الى أعلى مستوى من الجودة فى أنواع المعرفة, وكذلك مطلوب من ادراىيى الجامعة دعم المكتبة وابراز دور ها فى تحقيق الأهداف الجامعية. **كاداري في الجامعة ما مدى رؤيتك في أن للمكتبة دور أساسي في الجامعة وأن لها دور أيضا فى تحقيق أهداف جامعية معينة؟**

2. هناك عدة دراسات في مجال المكتبات والمعلومات تقترح أن العلاقة الجيدة بين اداريىى الجامعة والعاملين في المكتبة تعتبر عاملا مهما ومؤثر على أداء المكتبة بشكل ايجابي. **ما هو نوع التعاون أو الدعم بين ادارتك وادارة المكتبة؟**

3.من مسؤوليات الاداريين لاسيما الذين لهم دور اداري مباشر مع المكتبة ودعمها ماديأ ومعنويأ, ومدى معرفة البيئة المكتبية التى تناسب جميع المستفيدين. **حدثني ما هو انطباعك عن بيئة المكتبة على سبيل المثال أداء أمناء المكتبة ومعدات وأثاث المكتبة والمساحات المتوفرة للدراسة؟**

4.لتطوير أداء المكتبات الجامعية يجب على الاداريين دعم القائمين على ادارة المكتبات لكى يتمكنوا من تطوير المكتبة حتى تواكب المكتبات العصرية, على سبيل المثال تطوير المجموعات المكتبية وادخال أحدث التكنولوجيا في علم المكتبات. **هل من الممكن تخبرني عن كيفية تطوير المكتبة واعطائها مزيدا من الدور الأساسي في العملية التعليمية؟**

5.اختلفت بعض وجهات النظر حول دور المكتبة وما تقدمه للجامعة. **هل تعتقد أن هناك علاقة بين المكتبة وجودة التعليم الذى يقدم من قبل الجامعة أو الكلية؟**

شكراً جزيلاً على تعاونك معنا

Appendix E: Questionnaire Coding

@1. Universities:

KU= 1   AUK= 2   GUST=3

Students =1   Academics =2   Administrators =3

Male =1   Female =2

@2. Frequency of library visits:

☐ Daily= 1
☐ 2 – 4 days a week=2
☐ Weekly =3
☐ Fortnightly =4
☐ Monthly =5
☐ Rarely =6
☐ Never =7

@3. Library time spent:

☐ Less than one hour=1
☐ One hour =2
☐ Two to four hours=3
☐ Five hours and more=4

@4. The purpose of library visiting:

☐ Reading textbooks =1

☐ Borrowing & returning =2

☐ Reading newspapers & magazines =3

☐ Studying = 4

☐ Using internet for studying = 5

☐ Using internet for social networks =6

☐ Meeting People =7

☐ Relaxing = 8

☐ Others = 9

@ 5.Types of electronic resources do you need to access

☐ E-books =1

☐ E-journals =2

☐ Web sites of government institutions =3

☐ Web sites of non government institutions =4

☐ E-theses & dissertation = 5

☐ Web resources = 6

☐ Databases =7

☐ E-newspapers =8

☐ Others =9

@6. Types of resources do you use (Academics)

☐ Textbooks = 1

☐ Journals =2

☐ Databases

☐ Government documents=3

☐ Dissertations =4

☐ Newspapers=5

☐ Audio-visual materials =6

☐ Reports=7

☐ CDs=8

☐ Others=9

@7. Respondents by age group (Administrators)

☐ 18 – 30 = 1

☐ 31 – 40 =2

☐ 41 – 50 =3

☐ 50 – 60 =4

☐ Over 61 =5

• Kuwait University (KU)
• *Faculties:*

1. Faculty of Administrative Sciences = العلوم الادارية

2. Faculty of Arts   = الاداب

3. Faculty of Medicine = الطب

4. Faculty of Dentistry= طب الاسنان

5. Faculty of Engineering and Petroleum = الهندسه والبترول

6. Faculty of Education = التربيه

7. Faculty of Law = الحقوق

8. Faculty of Pharmacy = الصيدله

9. Faculty of Science = العلوم

10. Faculty of Shari'a and Islamic Studies = الشريعه والدراسات الاسلامية

11. Faculty of Social Sciences = العلوم الاجتماعية

12. Faculty of Support Medical Sciences and Nursing= العلوم الطبيه المساعده والتمريض

13. Faculty of women   = البنات

- *Departments:*

1. Dean of Admissions and Registration = عمادة القبول والتسجيل

2. Deanery = مكتب العميد

3. Office of Counseling and Advising = مكتب التوجيه والارشاد

4. Dean of Student Affairs = عمادة شؤون الطلبه

5. Community Service Centre = مركز خدمة المجتمع

6. Measurement and Teaching Development = مركز القياس و تطوير التدريس

7. Computer Centre = مركز نظم المعلومات

8. Cultural Department = ادارة العلاقات الثقافية

9. Department of Libraries = ادارة المكتبات

10. Student activities = الانشطة الطلابية

11. Department of Fellowships = ادارة المنح الدراسية

- *American University of Kuwait (AUK)*

Faculties:
1. Business and Economics

2. Humanities and Arts

3. Sciences and Engineering

4. Social Sciences

Departments:

5. Office of Admissions
6. Centre for Continuing Education
7. Human Resources
8. Finance
9. Information Technology
10. Campus Services ;5/J./H.H.

• Gulf University for Science & Technology (GUST)

Faculties: 1. College of Arts & Sciences. 2. College of Business Administration

Appendix F: Questionnaire verifiers

Three Kuwaiti experts were chosen for their experience in library services and previous studies they have completed. These staff are following:

1. Professor Yasser Abdul Motey, Director of Educational of Resources Department, the Public Authority for Applied Education and Training PAAET in Kuwait. He has 20 years' experience in Library and Information Management. He provided suggestions in relation to the quality of the questionnaires for the study.

2. Dr. Nasser Alkurianig, Lecturer of Information and Library management, and The Public Authority for Applied Education and Training PAAET in Kuwait. He holds a PhD in Library Evaluation. He also gave advice on the questions and design of a questionnaire.

3. Dr. Abdulhamid Al-Ibrahim, Department of Statistics and Operations Research in Kuwait University. He has made recommendations for improvements to the questionnaires. Abdulhamid has experience in the field of statistical analysis, which was useful in the construction of the researchers SPSS analysis.

The three staff who received the non Arabic version is from QUT and Loughborough University. They were chosen for their experience in library services and previous studies they have completed. These staff are following:

1. Professor Amanda Spink, Chair in Information Science at Loughborough University. Professor Spink has been noted as an intellectual leader for Library and Information Science and for having the second highest citation h-index in the field. She has over 330 publications and six books regarding information studies.

2. Dr. Michael Middleton, Faculty of Science and Technology, QUT – Dissertation Associate Supervisor. He has experience in Evaluation and Information Retrieval. He has also made suggests for developing the questionnaires.

3. Ms Emma Nelms, is a librarian at the Faculty of Science and Technology, and an information literacy advisory team convenor, Queensland University of Technology Library. Her background is primarily from academic library evaluation work. We worked together during stage two of the study.

Appendix G: Interview Themes and Coding

Themes	Value of academic library to users	
		(St5G1)
Coding	*a. Users need for the academic library*	

Questions	
As a student do you think that you could complete you degree without making use of any library services?	*English*: I often need to use the library for a variety of reasons, so the thought of not having this service available would have a detrimental effect on my study. I feel there is a definite need for the library and I feel that I would not attend a university without an adequate library. I can't stress enough how vital the library is to myself and many of my study friends
	Arabic: بالنسبه لي احتاج المكتبه لاسباب متعدده, من اهم هذي الاسباب الخدمات الموجوده في المكتبه والتي لها الاثر الفعال على تحصيلي العلمي. في الحقيقه انا اشعر بانه لا يمكن ان تستغني الجامعه عن المكتبه و خصوصا اذا كانت المكتبه تقدم خدمات جيده للطلبه. لا استطيع ان اجزم ما فيه الكفايه كم من الفائده التي أجنيها من المكتبة و كذالك العديد من اصدقائي الطلبة.

Themes	Value of academic library to users	
		(St7G1)
Coding	*a. Users need for the academic library*	

Questions	
As a student do you think that you could complete you degree without making use of any library services?	*English*: I have spent many hours in the library during my degree, it feels like a second home to me. Not only do I use the computers for study and relaxing, but the library is a great place to revise for my examinations as it's far quieter than my home. I really don't think I could have got this far with my degree without making use of the library. It is by far the best facility the university has to offer.
	Arabic: اقضى ساعات طويلة في المكتبه واشعر دائما ان المكتبه هى بيتي الثاني. في الحقيقة المكتبة ليست مجرد اسخداما للكمبيوتر او اخذ قسطا من الراحه ولكن تقوم بانجاز بعض امور الدراسية مثل تركيزي ودراستي للمواد اكثر مما اقوم بذلك في البيت. ولا استطيع الاستغناء عن المكتبة في تحصيلي العلمي وهى بالفعل افضل مكان لدى في الجامعة

Themes	Value of academic library to users	
		(St15G1)
Coding	*a. Users need for the academic library*	
Questions		
As a student do you think that you could complete you degree without making use of any library services?	*English*: I attend the library fairly frequently, but the main purpose of my visits is to make use of the collection. I have attempted to study by using just internet resources and I found it extremely difficult. That is why I feel the library is vital as the collection is far superior to anything I can find online. I don't think I could pass my units without the quality information that I can get from the library. Without these resources I think it would be impossible for many students studying technical qualifications to pass their degree.	
	Arabic: أنا أحضر الى المكتبة بشكل دائم ولكن السبب الرئيسي لتلك الزيارات هو استخدام المجموعات المكتبيه المتعلقه بدراستي. طريقة دراستي عادة هي استخدام المصادر الموجوده على شبكة الانترنت ولكن اجد صعوبة في الاعتماد عليها فقط. من وجهة نظري انه لايمكنني اجتياز المواد الدراسية بعيدا عن دور أساسي للمكتبة وأعتقد ايضا أن للمكتبة دور فعال لاتماما لاتمام لدراستهم.	

Themes	Value of academic library to users	(St11G1)
Coding	*a. Users need for the academic library*	
Questions		
As a student do you think that you could complete you degree without making use of any library services?	*English*: I have not been to the library since the first few weeks of my degree two years ago. I feel that the library offers me nothing that I cannot access from home. The internet is the main source of all my study and I find my home is far more comfortable and better suited for study than my academic library.	
	Arabic: أنا لا أذهب الى المكتبة الا مرات قليلة خلال التحاقي في الجامعة منذ سنتين. أنا أرى أن المكتبة لا تقدم ما هو مهم للطالب من خلال زيارته للمكتبة. وشبكة الانترنت هو المصدر الرئيسي الذى أعتمد عليه في البحث عن المصادر التى أريد.	

Themes	Value of academic library to users	(St8G1)
Coding	*a. Users need for the academic library*	
Questions		
As a student do you think that you could complete you degree without making use of any library services?	*English*: My specific library branch is outdated and offers me nothing with regards to my study. I have been here a few times and have left disappointed each time. After today I don't think I will be returning for sometime as I have found no books which I felt I could use for my study. The internet is by far a better way to complete my assignments, I don't even have to leave my home which is the best part. I feel that the library is a drain of resources for the university if I am being honest	
	Arabic: المكتبة التى أزورها تعتبر قديمة من حيث المعلومات التى تتعلق بدراستي ومرات عديدة لا أجد ما أريد من مصادر لذلك لا أعول كثيرا على المكتبة كمصدر فعال لحياتي الجامعية. اعتقد أن الانترنت كمصدر معلومات هو أفضل بكثير من المكتبة التقليدية لاننى أستطيع الدراسه فى المكتبة أو المنزل.	

Themes	Value of academic library to users	
		(St2G1)
Coding	*a. Users need for the academic library*	
Questions		
As a student do you think that you could complete you degree without making use of any library services?	*English*: I don't come to the library very often but when I do I normally just use the copy facilities. I copy some pages from the physical collection which are related to my study and return home. I can find this information on the internet normally but I don't have a printer at home and I like to have hard copies of material to make notes on. I could complete my studies without coming to the library, it's really not an important service for me. Studying at home is far more comfortable and I feel I can relax easier at home rather than sitting at a desk in the library with no personal space	
	Arabic: أنا لا أذهب الى المكتبة للدراسة ولكن لطباعة بعض الكتب الموجودة في المكتبة والمتعلقة ببعض المواد الدراسيه. أستطيع عادة أن أحصل على تلك المعلومات من خلال الانترنت ولكن لا توجد لدى طابعة في البيت. أستطيع أن أتابع تحصيلي العلمي دون التردد على المكتبة لأنها لا تقدم لي اية خدمات تشعرني أن لها أهمية بالنسبة للمواد الدراسية. لهذا السبب أكرر أن الدراسه في المنزل أكثر راحة وسهولة.	

Themes	Value of academic library to users	
		(Acad7G1)
Coding	a. academics need for the academic library	
Questions		
As an academic could you imagine a university functioning without an academic library?	*English*: The academic library is an ==important piece== of the educational puzzle, without it many students would ==struggle tremendously== to pass there degree's. I personally use the library a great deal so to me it's of ==importance== too. The databases are ==comprehensive== and help me with my writing and ==research I carry out==. The idea of a university having ==no library is ridiculous== and I support the academic library ==100%==.	
	Arabic: تعتبر المكتبة الاكاديمية ضرورية جدا في العملية التعليمية بدونها حتما سيواجه الطلبة العديد من الصعوبات أثناء دراستهم. على المستوى الشخصي أجد أن المكتبة لها أهمية بالغة. قواعد البيانات الخاصة بالمكتبة تعتبر شاملة وتساعدني في الكتابة والبحث الذى عادة أقوم به. أعتقد أن الجامعه لا تستغني عن المكتبة ودورها المهم ولا أؤيد من يقول عكس ذلك.	

Themes	Value of academic library to users	(Acad5G1)
Coding	a. academics need for the academic library	
Questions		
As an academic could you imagine a university functioning without an academic library?	*English*: I use the academic library now and again, I know a great deal of my students study there. The academic library and the ==quality of the collection makes my life much easier== when it comes to lectures as my students can grasp any theories I'm teaching easier as the library ==supports== my teachings. I can't imagine many of my students would ==pass their assignments without the academic library==.	
	Arabic: أنا أستخدم المكتبة بشكل دائم, ان المكتبة وفاعلية المجموعات المكتبية الموجودة بها تجعل حياتي الأكاديمية أكثر سهولة عندما أقدم المحاضرات لطلبتي وأشرح لهم بعض النظريات, أستطيع أن أقول بأن هناك أرتباط بين ما ندرسه للطلبه من مواد وما يوجد في المكتبة من مصادر. من هذا المنطلق أكاد أجزم أن المكتبة الاكاديمية لها دور أساسي في الأداء الأكاديمي للطالب.	

Themes	Value of academic library to users	(Acad10G1)
Coding	**a. academics need for the academic library**	
Questions		
As an academic could you imagine a university functioning without an academic library?	*English*: Academic libraries are an expensive commodity for universities to have. Digital collections are clearly the way forward, and the sooner users realise this, the better. I use many of the digital resources the library provides from my office and don't visit the library. The money spent on maintaining a huge building like a library could be used on improvements to various faculties within the university which require investment.	
	Arabic: أعتقد أن المكتبة بشكلها التقليدي تكلف الان مبالغ طائلة من ميزانية الجامعة. واجد أيضا أن المكتبة الرقمية قادمة في المستقبل القريب وسوف يتم ادراك ذلك في أقرب وقت بشكل أفضل. أنا أستخدم المصادر الرقمية التي توفرها المكتبة دون الذهاب الى المكتبة. من وجهة نظري ان المبالغ التي تصرف عل صيانة للمباني الكبيرة كالمكتبة من الممكن استخدامها لتطوير بعض المنشآت.	

Themes	Value of academic library to users	
Coding	**a. administrators need for the academic library**	
Questions		
As an administrator do you think that a university can function correctly without an academic library?	*English*: I feel the library is a valuable asset to the university, which is why it is constantly receiving funds to improve the collection and services provided. Personally I don't attend the library frequently, but I like to relax in the library sometimes with a magazine or to read the international newspapers".	
	Arabic: أشعر أن المكتبة لها قيمة فاعلة للجامعة مما يجعل ان هناك دعم مادي كبير لتطوير مصادرها وكذلك الخدمات التى تقدمها. أنا شخصيا لست من المترددين على المكتبة بشكل ملحوظ, ولكن أرغب في بعض الأوقات أخذ قسطا من الراحة لقراءة بعض المجلات والصحف العالمية.	

Themes	Library effect on PPP	
		(St13G2)
Coding	A .Students positive perception of library effect on PPP	
Questions		
Do you feel that the library has an impact on your overall academic performance regarding your grades?	*English*: The library is a good place to study and it gives me satisfaction in coming here and studying for several hours as I feel it helps gain a better understanding of my subject. I come here to revise for examinations as there is no temptation to do other things here like watch television, so this is the only place I don't feel distracted when revising. As far as improving my grades I don't know, but it has a positive impact on my confidence before an exam which is vital as going into an exam worried is a terrible feeling to have.	
	Arabic: تعتبر المكتبة مكان جيد للدراسة, اشعر بالرضى الكامل للمجئ الى هنا لساعات عدة, كما أن المكتبة تجعلني أكثر فهما للمواد التى أدرسها في كل فصل دراسي. من الاعتيادي أن أزور المكتبة لمراجعة بعض الامتحانات والتقوية في بعض المواد أكثر من المجئ الى هنا لمشاهدة التلفاز. أنا أرى أن المكتبة تحقق أهدافي وتعطيني الثقه الزائدة لتحقيق أهدافي العلمية.	

Themes	Library effect on PPP	
		(St14G2)
Coding	A .Students positive perception of library effect on PPP	
Questions		
Do you feel that the library has an impact on your overall academic performance regarding your grades?	English: I used to have some trouble with studying at my home in the past as I have a big family. This year I decided to spend my study time at the library rather than at home, and it is having a positive effect on my class performance. Before I used to feel like the teachings were going over my head, but now I have a better understanding of what I am learning as I re-read class notes after the lesson in the library. This is helping me improve my assignment grades, before I was getting D at best, now I am pushing for C and some B's so I'm delighted with the impact its having	
	Arabic: أجد صعوبة في الدراسة في المنزل نظرا لعدد أفراد عائلتي الكبير, لهذا السبب قررت هذه السنة أن تكون دراستي في المكتبة وحقيقة شعرت بالفرق, أثر هذا ايجابا على أدائي فى المحاضرات. فى الماضي لم أكن أركز مع المحاضر لانه كان يطلب من الطلبه فى بعض الاحيان قراءة بعض المصادر المتوفرة في المكتبة. هذه الطريقة جعلت ايضا رفعت مستوى درجاتي حيث كنت أحصل بالسابق على درجة مقبول والان هناك بالفعل تحسن الى درجه الحصول على درجة جيد.	

Themes	Library effect on PPP	
		(St19G2)
Coding	*A .Students positive perception of library effect on PPP*	
Questions		
Do you feel that the library has an impact on your overall academic performance regarding your grades?	*English*: I think the library has an effect on my grades yes. I cannot complete my assignments without coming here so the impact would be if I did not come here I would fail. I think that is quite a considerable impact as I really do feel the library is vital for me to complete my degree. I revised at home for a few of my first exams and found it difficult to study for any period of time as I became bored or confused. I now revise as a group with my friends and some of my grades have improved this year in my exam results	
	Arabic: أعتقد أن المكتبة لها تأثير مباشر على تحصيلي العلمي, على سبيل المثال لا أستطيع انجاز البحوث العلمية دون الرجوع الى المجموعات المكتبية المتوفرة وان هذا التأثير لابد أن يؤخذ بعين الاعتبار. لقد حاولت أن أدرس في المنزل ولكن وجدت أنه بيئة غير مناسبة وتبعث في نفسي الملل والحيرة. ان متابعة دراستي في المكتبة وبشكل جماعي مع بعض الزملاء يساعد في ارتفاع مستوى الطلاب ويعطيهم الثقة في الحصول على درجات عالية.	

Themes	Library effect on PPP	
		(St6,G2)
Coding	*A .Students negative perceptions of library effect on PPP*	
Questions		
Do you feel that the library has an impact on your overall academic performance regarding your grades?	*English*: The library is a nice place to study, but I feel it has no impact on my overall grades. I use the library now just to use the computers and print facilities when I am printing my assignments, but I used to study here often. I have read almost all the books on my study, and the collection has not changed since I first came here. I see no difference in my grades from studying at home or in the library, so I choose to study at home now.	
	Arabic: رغم أن المكتبة مكان جيد ومناسب للدراسة ولكن لا أرى أن لها تأثير مباشر على التحصيل العلمي للطالب بشكل عام. أنا أزور المكتبة بشكل دائم لاستخدام الكمبيوتر وطباعة بعض الاوراق الخاصة بالبحوث التى أقوم بها هذا العام. من السلبيات الموجودة في المكتبة مع الأسف أن أغلب الكتب المتعلقة في تخصصي قد قمت بقراءتها في السنوات الدراسية السابقة ولم تقوم المكتبة بتجديد تلك المجموعات, لذلك السبب لا أجد حقيقة أن هناك فرق في مكان الدراسة سواء في المكتبة أو البيت, واخيرا فضلت الدراسة في البيت.	

Themes	Library effect on PPP	
		(St9, G2)
Coding	*A .Students negative perceptions of library effect on PPP*	
Questions		
Do you feel that the library has an impact on your overall academic performance regarding your grades?	*English*: I would like to think the library improves my grades, but when I visit the library it is impossible to find a computer to use. So there is no improvement in my performance as I can't use the one service I need when I attend the library. Personally I feel the library would not improve my grades if I studied there or if I studied at home. The environment does not change the person, I'm not a smarter person if I'm sitting in a library rather than sitting in my home.	
	Arabic: في الحقيقة أتمنى أن المكتبة تستطيع أن تؤثر تأثيرا مباشرا على تحصيلي العلمي. ولكن عندما أزور المكتبة من الصعوبة أن تجد جهاز كمبيوتر لتستخدمه , لذلك ليس هناك أى تطوير للأداء الأكاديمي. من وجهة نظري الشخصية ليس هناك أى ارتباط علمي بين مكتبتنا وبين ارتفاع أو انخفاض معدل الطلبة في الجامعة. ولا أعتقد أيضا أن جلوس الطالب في المكتبة سوف يعطيه دفعة قوية للدراسة. وأنا ليس لدي الذكاء الكافي حتى أفضل المكتبة على البيت.	

Themes	Library effect on PPP	
		(Acad2, G2)
Coding	*A .Academics positive perception of library effect on PPP*	
Questions		
Do you think the library has an impact on your teaching; does it improve the quality of your lectures?	*English*: I use the library from time to time when I am writing a research paper or book. The library databases are a good way to find historical information which is difficult to find on the internet. I feel I am still learning even at my age so the library is one way I learn a new fact or two when I'm reading historical documents.	
	Arabic: أنا أستخدم المكتبة من وقت الى وقت عندما أقوم بنشر بعض الأوراق العلمية أو الكتب. قواعد المعلومات الخاصة بالمكتبة تعتبر جيدة في الحصول على معلومات تاريخية قد لا تكون متوفرة في الانترنت بالشكل المطلوب. رغم تقدمي بالسن الا أنني ما زلت أتعلم ,استخدم المكتبة بشكل أساسي.	

Themes	Library effect on PPP	
		(Acad4, G2)
Coding	A .Academics positive perception of library effect on PPP	
Questions		
Do you think the library has an impact on your teaching, does it improve the quality of your lectures?	English: The library training courses have helped me within the classroom; therefore it has improved my lecture quality. I feel I am not always up to date with the latest technological advances, so the PowerPoint training helped me come into the 21st century with regards to teaching methods. I think my students appreciate the use of the occasional slideshow as I imagine listening to someone for any period of time is boring.	
	Arabic: التمارين التى تقدمها المكتبة تساعدنى من خلال أدائى داخل الفصل الدراسي, لهذا السبب أرى أن التمارين تطور جودة المحاضرات ورغم أننى لست من الذين يجيدون استخدام التكنولوجيا الا ان التمارين على البوربوينت ساعدني أن أمارس التكنولوجيا التى تعتبر من أهم المناهج فى طرق التدريس فى القرن الواحد والعشرين. وأعتقد أن الطلبة الذين أقوم بتدريسهم متقبلين بشكل ايجابي أغلب المحاضرات التي استخدم بها نظام البوربوينت.	

Themes	Library effect on PPP	
		(Acad6, G2)
Coding	A .Academics negative perceptions of library effect on PPP	
Questions		
Do you think the library has an impact on your teaching, does it improve the quality of your lectures?	English: The library offers me personally very little with regards to my performance. The collection is very limited in my field and I have purchased many of the books I require out of my own money. The library gives enough information to students, but when it comes to writing papers and PhD level students I feel it offers them very little.	
	Arabic: أعتقد أن المكتبة قدمت القليل جداً بالنسبة لأدائي. المجموعات المكتبية تكاد تكون قليلة جداً مما يجعلني أن اضطر لشراء بعض الكتب التى أكون بحاجة لها. المكتبة تقدم المعلومات الكافية للطلبة ولكن عندما تفكر بكتابة ورقة علمية أو معلومات على مستوى طلبة الدكتوراه سوف تعانى لقلة المعلومات التى قد تجدها فى المكتبة.	

Themes	Library effect on PPP	
		(Acad10, G2)
Coding	*A .Academics negative perceptions of library effect on PPP*	
Questions		
Do you think the library has an impact on your teaching, does it improve the quality of your lectures?	*English*: I have inquired within the library about training in various computer courses which I have difficulty with, but the training on offer if very basic or not the type I require. This training would improve my class quality as I feel I am out of touch with some of the computer programs used by the students. And the collection offers me no instruction in using these programs so to be honest the library has no impact on my performance.	
	Arabic: أنا من أعضاء هيئة التدريس الذين شاركوا في بعض التمارين في المكتبة منها التمارين على استخدام الكمبيوتر, لكن للأسف كان البرنامج المقدم بسيط جداً ولا يساعد على تطوير مهارات أعضاء هيئة التدريس ولا يناسب مستواهم الأكاديمي. نتمنى بالفعل وجود برامج أكثر تطوراً من تلك البرامج التي رأيتها كي ينعكس ذلك على أداء الأكاديميين داخل المحاضرة. كذلك المجموعات المكتبية لا ترتقي بأعضاء هيئة التدريس, وأكون صادقا معك أن المكتبة ليس لها تأثير على أدائى الأكاديمي داخل الجامعة.	

Themes	Student perceptions of all library services	
		(St13, G3)
Coding	*A. positive opinion of library services*	
Questions		
As a student, what is your opinion about the services of your library?	*English*: I come to the library about twice a week, sometimes more. The opening times are good for me as I have free time during the day meaning I could come here every day if I wanted. As far as I'm concerned my university library always provides the latest technology to support students in their studies. The resources and tools help to extend our knowledge and understanding which satisfies our academic needs. I'm quite happy with its services as they support us in achieving our goals.	
	Arabic: أقوم بزيارة المكتبة بمعدل مرتين فى الاسبوع وفي بعض الأحيان أكثر من ذلك. ساعات العمل في المكتبة تعتبر جيدة بالنسبة لي. أعتقد أن مكتبة الجامعة توفر أحدث التكنولوجيا التي تساعد الطلبة على تحقيق احتياجاتهم الدراسية من بحوث وما شابه ذلك. وأعتقد أيضاً أن المصادر الموجودة تلاقي استحسان الطلبة وتوسع مداركهم. بشكل عام أستطيع أن أقول أن المكتبة تحقق الأهداف التى وضعت من أجلها.	

Themes	Student perceptions of all library services	
		(St15, G3)
Coding	*A . positive opinion of library services*	
Questions		
As a student, what is your opinion about the services of your library?	*English:* I pop in the library almost <mark>every day</mark>. It is <mark>very organised</mark> <mark>and quiet</mark> and that helps me to <mark>concentrate</mark> whilst also allowing me to <mark>enjoy studying</mark> at the same time. The furniture is pretty <mark>new and comfortable</mark>, and the <mark>staff are helpful</mark>. I particularly like the fact that there are specific signs for every section so we can access specific resources <mark>quickly and efficiently</mark>. It also means that we don't get lost.	

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Arabic: أقوم بزيارة المكتبة بشكل يومي تقريبا. تعتبر المكتبة مرتبة بشكل جيد وتساعدني على الدراسة. بالنسبة الى أثاث المكتبة يعتبر حديث ومريح بنفس الوقت, وما لاحظته هو أن أمناء المكتبة متعاونين مع الطلبة المساعدة لهم. كما ايضاً لا أجد صعوبة تذكر فى الحصول على المصدر الذى اريده.

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Themes	Student perceptions of all library services	
		(St14, G3)
Coding	*A . Negative opinion of library services*	
Questions		
As a student, what is your opinion about the services of your library?	*English:* The services of my branch library (Education library) are rather good as there is a sufficient number of staff to handle the amount of people entering it. One problem I may have with the layout or design of the library is that they <mark style="background:red">don't have specific signs</mark> up for certain categories of books which make it more <mark style="background:red">difficult to locate the resources</mark> you are looking for. Our branch library is smaller than the central library which has better signs and <mark style="background:red">its far easier to find specific information in the central library</mark>.	

<div dir="rtl">

Arabic: الخدمات الموجودة فى مكتبتنا (مكتبة كلية التربية فى جامعة الكويت) تعتبر جيدة الى حد ما, وكذلك أمناء المكتبة لا يترددون فى مساعدة الطلبة. ولكن هناك مشكلة وحيدة أود أن أذكرها وهى أنه لا يوجد علامات واضحة للبحثداخل المكتبة عن بعض الكتب المتعلقة بدراستي, بالرغم أن مكتبتنا تعتبر صغيرة الحجم الا أن هذة المشكلة معالأسف مازالت موجودة.

</div>

Themes	Student perceptions of all library services	
		(St3, G1)
Coding	A . Negative opinion of library services	
Questions		
As a student, what is your opinion about the services of your library?	*English*: I would say that our library has several types of information resources available which is quite good but the one problem I have faced is that the layout is a bit messy and crowded. It takes a long time to find the resource you need and so you end up wasting time. The library feels too small for the amount of books and furniture which it houses. I prefer more personal space when it comes to study, but personal space seems to be a premium in our library. If the library considers this point, then it will be a far better place to study.	
	Arabic: ما أود أن أقوله هو أن مكتبتنا لديها العديد من مصادر المعلومات وتعتبر هذه المصادر جيدة الى حدٍ ما. ولكن هناك مشكلة تواجهني عند زيارة المكتبة وهى أن أغلب الأحيان يكون هناك ازدحام وعدم تنظيم لبعض المصادر مما يؤدى الى صعوبة الحصول عليها. وأيضاً المكتبة تعتبر صغيرة الحجم والمجموعة المكتبية عددها محدود.	

Themes	Academics perceptions of all library services	
		(Acad1, G1)
Coding	A. positive opinion of library services	
Questions		
As you are an academic, what is your opinion about the services of your library?	*English*: I think the library services meet our needs. In general, the library services provide suitable resources for the college of administrative sciences. The librarians understand what faculty members require from the library, the library provides a range of services, The policy of borrowing items is easy to follow, There is an online catalogue available, There are facilities for printing and photocopying.	
	Arabic: أعتقد أن خدمات المكتبة تلبى احتياجاتى الدراسية وبشكل عام المكتبة تقدم المصادر المناسبة لكلية العلوم الادارية. من ايجابيات المكتبة ان أمناء المكتبة عندهم دراية كاملة عما يريده عضو هيئة التدريس من مصادر. كذلك طريقة الاستعارة تعتبر سهلة. ويوجد أيضاً فى المكتبة قواعد البيانات الألكتروني	

Themes	Academics perceptions of all library services	
		(Acad9, G1)
Coding	*A . positive opinion of library services*	
Questions		
As you are an academic, what is your opinion about the services of your library?	English: The library provides an array of information and services in a variety of formats. ==I particularly like the digital collections== as they are ==easily accessed== and can be saved to my desktop computer. One of the most important services of our library is the provision of ==online access to the library catalogue== for the library collection and database, and the ==staff are very helpful== when I'm having difficulty finding resources.	
	Arabic:	

Themes	Academics perceptions of all library services	
		(Acad6, G1)
Coding	*A . positive opinion of library services*	
Questions		
As you are an academic, what is your opinion about the services of your library?	English: I think the library services provide an ==attractive study environment== with specified study areas for all users and ==high quality resources== which provide most students with what they need. In particular, there is access to a ==large collection of print and digital materials== which is useful for my lectures, and ==I can present digital material== on the projector for my lectures.	
	Arabic:	

Themes	Academics perceptions of all library services	
		(Acad3, G1)
Coding	*B . negative opinion of library services*	
Questions		
As you are an academic, what is your opinion about the services of your library?	English: I can see that the university library services need more improvement because the last changes were made about five years ago. In particular, the library requires an updating of digital materials and online services to match the developments made in recent technology, and for training to be provided for the use of the new technology. I think we are behind with regards to new technologies compared to western universities, and this needs to be addressed in order to increase our reputation worldwide.	
	Arabic:	

Themes	Academics perceptions of all library services	
		(Acad5, G1)
Coding	*B . negative opinion of library services*	
Questions		
As you are an academic, what is your opinion about the services of your library?	English: Our library (Medicine Library) is too small, when I compare it to the library at the university where I studied my degree in America. Also, as we are teaching medicine, we require new resources all the time as new discoveries and developments are made every day and it is very important that we have the latest, most up-to-date resources, as the medical world is changing at a rate which the library is failing to keep up with. Digital resources are the fastest way to keep up to date with medical developments, so this one area which should be invested in.	
	Arabic:	

Themes	Administrators perceptions of all library services	
		(Admin10, G1)
Coding	*B . positive opinion of library services*	
Questions		
As you are an administrator, what is your opinion about the services of your library?	English: I think the ==library provides high quality services== with access to ==large collections== of both print and electronic resources. The university encourages the library in the development of its services as it recognises the ==importance the library holds in supporting students.== ==Many students use the library as their primary place of study.==	
	Arabic:	

Themes	Administrators perceptions of all library services	
		(Admin1, G1)
Coding	*B . positive opinion of library services*	
Questions		
As you are an administrator, what is your opinion about the services of your library?	English: The library services ==meet the needs of the users==, especially the students. I believe that the university administrators do their best to make the library services as ==efficient and effective as possible==. They do this through dedicating a specific budget to the library, which is increased each year, ==with the sole purpose to improve services==. This investment can be seen throughout the library, with ==new technologies implemented and modern furniture==.	
	Arabic:	

Themes	Administrators perceptions of all library services	
		(Admin2, G1)
Coding	*B . positive opinion of library services*	
Questions		
As you are an administrator, what is your opinion about the services of your library?	English: According to the yearly report of the university, it appears that the ==library services are meeting the information needs==. I see that the library also provides users with the opportunity to study alone or in groups thanks to the separate ==meeting rooms and designated study areas==. In addition, the ==large and varied collections== provide students and staff with an array of resources. ==The digital collection is vast and many users are benefiting from the digital collections.==	
	Arabic:	

Themes	Administrators perceptions of all library services	
		(Admin2, G1)
Coding	*B . positive opinion of library services*	
Questions		
As you are an administrator, what is your opinion about the services of your library?	English: GUST library is considered a new library, having only been open for around six or seven years. The collections are quite small, ==but more than enough to cover the resources required by the courses of the university==. In my opinion, the library ==provides good services== for all users. Due to the library being relatively new, the design and furniture make a ==pleasant environment to study in.==	
	Arabic:	

Themes	Administrators perceptions of all library services	
		(Admin4, G1)
Coding	*B . Negative opinion of library services*	
Questions		
As you are an administrator, what is your opinion about the services of your library?	English: When you compare our library with those, say in America, <mark>our collections are much smaller</mark> and we have <mark>fewer computers</mark>. Also, libraries in some other countries tend to update their collections and services <mark>far more regularly than we do,</mark> which could have a <mark>negative effect</mark> with regards to foreign students coming to Kuwait to study. <mark>The digital collections need to be expanded and kept updated in order to be relevant</mark> with all current studies.	
	Arabic:	

Themes	Student preferred information resource	
		(St13, G2)
Coding	*A .Books*	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: <mark>Books are my favorite</mark> as they are a sustainable resource of information and I enjoy reading as well. <mark>I trust the information of books</mark> because they contain the valuable experiences of the writer. Books are <mark>quick and easy</mark> to access and I can <mark>keep it in my bag</mark>, and use it whenever. The library has <mark>relevant and new studies</mark> which are relevant to my course. Books <mark>give a better description</mark> of subjects compared to journals, and this is useful for self learning as the <mark>descriptions books give are far clearer and easier to follow</mark>.	
	Arabic:	

Themes	Student preferred information resource	
		(St1, G2)
Coding	*A. Books*	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: <mark>Books are much more helpful</mark> compared to other resources, such as electronic resources. I like to rely on books because most of the time they <mark>refer to the correct and right information</mark>. The books I have used are all fairly <mark>new and relevant</mark> which is good as my topics require modern data and studies. <mark>I always take several books</mark> for a topic of study, and read several different authors opinions on a subject. Also, <mark>my teacher tends to give us books on our suggested reading lists</mark>.	
	Arabic:	

Themes	Student preferred information resource	
		(St1, G2)
Coding	*A. Books*	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: Many of the texts I usually look at when in the library are newspapers and books – in particular, biographies and autobiographies. <mark>Biographies and autobiographies are of great interest to me</mark> as I like to read about other people's lives and how they overcome obstacles in life. <mark>The books are up to date</mark> and there are many new biographies which arrive in the library. The main reason I look at these selected types of books is because they are the most useful in finding information <mark>quickly and effectively for my research-based assignments</mark>.	
	Arabic:	

Themes	Student preferred information resource	
		(St17, G1)
Coding	**B. Website**	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: I ==start with the library's website== to search for, and link me to, ==resources relevant to my assignments==. After that, I will then use the books or journals suggested. What I use the most will depend on the subject of my assignment and what resources are available in connection to that subject.	
	Arabic:	

Themes	Student preferred information resource	
		(St2, G2)
Coding	**B. Website**	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: I use the library's website because it keeps a ==regular update of journals== so I search it every week to see what ==new resources== are available. Although I also use the printed collection, this is not updated as frequently and so I often find ==digital resources more useful==. The website is ==well designed== and is the ==fastest and easiest way== to find what I am looking for.	
	Arabic:	

Themes	Student preferred information resource	
		(St2, G2)
Coding	*c. Government documents*	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: My teacher recommends that I read government documents<mark>, firstly because they provide certain evidences related to my studies</mark> that cannot be found from other sources and secondly because we use them as a <mark>basis for discussion in our classes</mark>. The documents are <mark>easy to browse</mark>, and have been <mark>useful for my study</mark>.	
	Arabic:	

Themes	Academics preferred information resource	
		(Acad10, G2)
Coding	*A. Electronic resources*	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: It depends on where I am seeking information from, whether it is books, journals or electronic resources. Personally, I prefer <mark>citing information from electronic resources</mark> because it is <mark>easy to store</mark> on my own computer from where I can then access it more <mark>conveniently</mark> than printed resources. I think that there is <mark>little need for printed versions of resources if they are available in an electronic format</mark>.	
	Arabic:	

Themes	Academics preferred information resource	
		(Acad1, G2)
Coding	*A. Electronic resources*	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: I always prefer to use electronic resources as they are often faster than consulting print resources and are updated far more frequently. Also, it is possible to access them outside of the library and items can be saved and stored meaning they can be retrieved anytime, anywhere.	
	Arabic:	

Themes	Academics preferred information resource	
		(Acad7, G2)
Coding	*A. Electronic resources*	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: I have internet access in my office at the university. When I log on to the library website it allows me to access online databases such as EBSCO, JSTOR and Lexis-Nexis. I think that these are very useful as they have many quality resources which they are continually updating.	
	Arabic:	

Themes	Academics preferred information resource	
		(Acad2, G2)
Coding	**B. Books**	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: <mark>I prefer to use books</mark> as, through my eight years experience, I have gained an understanding of relevant and irrelevant texts. Also, I find that books <mark>provide better explanations</mark> of issues than journals. Books are <mark>always at hand</mark> and <mark>don't require the internet or a computer</mark> to use them.	
	Arabic:	

Themes	Academics preferred information resource	
		(Acad8, G2)
Coding	**B. Books**	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: It depends on the information I need. <mark>I think books are probably more useful</mark> as they are more <mark>detailed resources</mark> in comparison to articles, for example. I use my own, personal collection of books that I keep in my office <mark>as points of reference for my work</mark>.	
	Arabic:	

Themes	Academics preferred information resource	
		(Acad9, G2)
Coding	*C. Newspapers*	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: I tend to use more than one type of information resource. For example, I use books to search for theories about marketing and business. I am also interested in reading business newspapers and magazines to gain more knowledge and understanding of my major. Business newspapers keep me updated with events around the world, which are relevant in my field.	
	Arabic:	

Themes	Administrators preferred information resource	
		(Admin10, G2)
Coding	*A. Internet*	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: As I work in the department of Student Activities, my main concern is simply that of the university students. Our role includes creating activities and planning and preparing trips, plays and parties so I use the internet a lot to search for new ideas for student experiences.	
	Arabic:	

Themes	Administrators preferred information resource	
		(Admin5, G2)
Coding	*A.* *Internet*	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: ==The databases in my library are my favorite resource== for getting information related to my major. I use that on my own computer in my own office==. I also use Google as a useful search engine== which I find particularly easy to use.	
	Arabic:	

Themes	Administrators preferred information resource	
		(Admin 9, G2)
Coding	*A.* *Internet*	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: As I am in the resource centre, I tend to use the ==internet and databases== most frequently to collect the information I require. I always use the library database as I find it to be ==rich in varied sources of information==.	
	Arabic:	

Themes	Administrators preferred information resource	
		(Admin 9, G2)
Coding	**A. Internet**	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: As I am in the resource centre, I tend to use the <mark>internet and databases</mark> most frequently to collect the information I require. I always use the library database as I find it to be <mark>rich in varied sources of information</mark>.	
	Arabic:	

Themes	Administrators preferred information resource	
		(Admin3, G2)
Coding	**B. Positive towards books/Negative towards IT**	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: I may use all of these resources at sometime but I prefer to <mark>use books for my work</mark>. <mark style="background:red">I'm not particularly good at using computer</mark>s and <mark style="background:red">I cannot spend a long time reading from a screen</mark>. With books, <mark>I can read anywhere at any time</mark> that is convenient to me and, for me, <mark>it is more accessible</mark>	
	Arabic:	

Themes	Administrators preferred information resource	
		(Admin3, G2)
Coding	*A. Positive towards books/Negative towards IT*	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: I am not good with technological resources and so I prefer to use books, newspapers and magazines. Sometimes I borrow these from our library. I only use a computer for communication, i.e. e-mail and for work.	
	Arabic:	

Themes	Administrators preferred information resource	
		(Admin2, G2)
Coding	*Newspapers*	
Questions		
What type(s) of information resources would be most useful for your assignments and research?	English: I tend to use newspapers and magazines more than any other information resource to support my work. The reason for this is simply that I feel these to be the most up-to-date source of information that I can check on a daily basis.	
	Arabic:	

Themes	Students preferred library service	
		(St14, R1)
Coding	*Internet*	
Questions		
Which services in your library do you use more than others, and why?	English: Most of the time I use the library when I need to access the ==internet== so I can research via ==search engines such as Google and Bing== which offer me an easier way of researching the facts I need ==faster==. ==Search engines== are such a ==fast and useful tool==, that spending time looking for books in the library seems pointless.	
	Arabic:	

Themes	Students preferred library service	
		(St20, R1)
Coding	*Internet*	
Questions		
Which services in your library do you use more than others, and why?	English: I ==use the internet== at the library to ==find and read websites== that are related to my studies, using ==Google as a search engine==. Sometimes I also use it for personal use, such as checking ==e-mails and social websites==.	
	Arabic:	

Themes	Students preferred library service	
		(St11, R1)
Coding	*Library website*	
Questions		
Which services in your library do you use more than others, and why?	English: I'm not keen on using the library catalogues as they are not always available when I need them. I mostly use the ==library for its website== because I don't have access to the internet at home. Much of my internet use in the library is ==social and entertainment== due to the situation at home.	
	Arabic:	

Themes	Students preferred library service	
		(St13, R1)
Coding	*Library website*	
Questions		
Which services in your library do you use more than others, and why?	English: Using the library's websites is the ==most useful service for me==. I can find out everything about the university and so be aware of ==any events== around me as well. In addition, I can link with other students ==to share and discuss our opinions together==.	
	Arabic:	

Themes	Students preferred library service	
		(St12, R2)
Coding	*Printers and copiers*	
Questions		
Which services in your library do you use more than others, and why?	English: I mostly go to the library to use their ==printer== because most of the time ==my printer is out of ink== or there is no paper or some other such problem so I find it much ==simpler== to walk down to the library and use ==the printer provided.==	
	Arabic:	

Themes	Students preferred library service	
		(St4, R2)
Coding	*Printers and copiers*	
Questions		
Which services in your library do you use more than others, and why?	English: ==The photocopier== is the service I use the most as we ==can't find a photocopier anywhere else== and it is ==not easy to have one at home==, so I use it in the library to photocopy all the documents and books I need. I==t's very cheap and good of good qualit==y, so it makes copying many documents ==easy and fast==.	
	Arabic:	

Themes	Academic library support for faculty	
		(Acad2, R1)
Coding	*Positive opinion of library support.*	
Questions		
How well does your library support your faculty's programs?	English: In general, the <mark>library staff are extremely helpful</mark> to us and the students. Every semester the library aims to <mark>provide appropriate collections</mark> and when we ask the library about resources, they <mark>do their utmost</mark> to find it and if they cannot find a specific text, they will provide a <mark>suitable replacement</mark>.	
	Arabic:	

Themes	Academic library support for faculty	
		(Acad10, R1)
Coding	*Positive opinion of library support.*	
Questions		
How well does your library support your faculty's programs?	English: The library currently <mark>supports my faculty's programs</mark> by providing <mark>training</mark> for my students and an <mark>extensive resource collection</mark> that allows them to source all the information they require to <mark>support them in writing assignments</mark> and <mark>preparing for exams</mark>.	
	Arabic:	

Themes	Academic library support for faculty	
		(Acad3, R1)
Coding	*Negative opinion of library support.*	
Questions		
How well does your library support your faculty's programs?	English: The library provides some resources that are related to my programs but, in my opinion, there is not enough. Students need opportunities to improve and develop information and IT skills to help them use the library effectively and efficiently. I believe that this is the librarian's responsibility to provide such services. Courses and training should be provided more frequently and organised better.	
	Arabic:	

Themes	Academic library support for faculty	
		(Acad6, R1)
Coding	*Negative opinion of library support.*	
Questions		
How well does your library support your faculty's programs?	English: That is a good question. I think faculty members need assistance with teaching their programs, from the library. However, there is a limit to how librarians currently support academics. I believe they can do more for us. For example, they could provide a service that teaches our students about citations, copyright and assignment structure. These types of courses would be good for bachelors due to the detail required in writing assignments.	
	Arabic:	

Themes	Library collections	
		(St14, R4)
Coding	*Positive opinion students*	
Questions		
How well do the library's collections help you in your study needs?	English: The library is <mark>great for research</mark> especially with the <mark>array of books to choose from</mark>. Whatever assignments I am given I know I can go to the library and find out <mark>whatever I need in order to complete my work to a high standard.</mark> I know that I can <mark>find information quickly</mark>, which is good as my <mark>time is precious</mark> to me when it comes to study.	
	Arabic:	

Themes	Library collections	
		(St2, R4)
Coding	*Positive opinion students*	
Questions		
How well do the library's collections help you in your study needs?	English: I would say that we have a <mark>high quality collection</mark> of electronic materials because I used a lot of these materials last term and they were <mark>really useful</mark> which was great. I used <mark>lots of E-journals and documents</mark>, which are <mark>quick and easy to reference as they are digital.</mark>	
	Arabic:	

Themes	Library collections	
		(St3, R4)
Coding	*Positive opinion students*	
Questions		
How well do the library's collections help you in your study needs?	English: The best function of the library is that they offer a high quality of collections such as books and government documents which motivates me into using the library for my work. The collections are easy to access and find the relevant details I require using the directory system.	
	Arabic:	

Themes	Library collections	
		(St8, R4)
Coding	*negative opinion students*	
Questions		
How well do the library's collections help you in your study needs?	English: I use the internet rather than relying on the physical collections available because it can be hard to find the information I need, there aren't many materials relevant to my work and they are not up-to-date. This is the main area of improvement I would recommend to the library, improve the collection.	
	Arabic:	

Themes	Library collections	(acad9, R2)
Coding	*Positive opinion for academics*	
Questions		
How well do the library's collections support your students in their studies?	English: This is an important issue. When GUST was established in 2003, students struggled with the library collection as it was new and many services required improvements. Now it is ==completely different and the library provides an excellent collection in all formats==.	
	Arabic:	

Themes	Library collections	(Acad11, R2)
Coding	*Positive opinion for academics*	
Questions		
How well do the library's collections support your students in their studies?	English: ==The size of the library collection is sufficient for our program's needs==. I am not aware of any complaints from the students against the library and ==so I am content that the collection meets the needs of our students==.	
	Arabic:	

Themes	Library collections	
		(Acad1, R2)
Coding	*Negative opinion for academics*	
Questions		
How well do the library's collections support your students in their studies?	English: This is a very important issue. It is essential that a library provides a collection that helps students in their studies. I have noticed that students make more use of online databases than printed resources as electronic sources are updated more often. This is one of the disadvantages of the collections of all branches of the KU libraries.	
	Arabic:	

Themes	Library collections	
		(Acad3, R2)
Coding	*Negative opinion for academics*	
Questions		
How well do the library's collections support your students in their studies?	English: The library does not provide all the resources required for my program. Sometimes, I have to recommend specific resources to my students that they have to find from somewhere else. In addition, I also give them related websites where they can find new resources.	
	Arabic:	

Themes	Collaboration between academics and librarians	
		(Acad10, R3)
Coding	*No collaboration*	
Questions		
What type of collaboration do you find between librarians and you as a faculty member? Can you please describe it?	English: We have much respect for the librarians but I have worked at KU since 1998 and, personally, I have had little interaction with the library staff during that time. There is little need for collaboration between my department and the library administration but sometimes the librarians are called on to help our students.	
	Arabic:	

Themes	Collaboration between academics and librarians	
		(Acad2, R3)
Coding	*No collaboration*	
Questions		
What type of collaboration do you find between librarians and you as a faculty member? Can you please describe it?	English: The only time that the faculty and library collaborate is when the library sends lists of new resources to our department office from which we choose items that are relevant to us. Unfortunately this is the only collaboration with the library. If there are items we require that are on the list and so we have to obtain these from elsewhere.	
	Arabic:	

Themes	Collaboration between academics and librarians	
		(acad4, R3)
Coding	*No collaboration*	
Questions		
What type of collaboration do you find between librarians and you as a faculty member? Can you please describe it?	English: Good point. At the moment, there is no collaboration between us and the librarians. I think the main reason for this is due to the policy of our university in that it does not provide opportunities for faculty members and librarians to work together. However, if this were to change, I think it would improve the quality of the education system.	
	Arabic:	

Themes	Collaboration between academics and librarians	
		(acad8, R3)
Coding	*Positive collaboration*	
Questions		
What type of collaboration do you find between librarians and you as a faculty member? Can you please describe it?	English: I feel that both the library and the faculty team support and advance the education of our students. I can definitely say that there is collaboration between us and the librarians with regard to information literacy programs and in-class orientation.	
	Arabic:	

Themes	Quality of IT services provided by library	
		(St8, R3)
Coding	Positive perception by students	
Questions		
Are you satisfied with the IT services at your library?	English: I think our library provides an array of Information technology services. I always use the library computers to browse through related resources and digital materials.	
	Arabic:	

Themes	Quality of IT services provided by library	
		(St11, R3)
Coding	Positive perception by students	
Questions		
Are you satisfied with the IT services at your library?	English: I can't deny the value of the services available in the library especially with regard to the networks. In particular, I am always impressed with the way the IT is kept up-to-date.	
	Arabic:	

Themes	Quality of IT services provided by library	
		(St11, R3)
Coding	*Positive perception by students*	
Questions		
Are you satisfied with the IT services at your library?	English: There are a lot of changes happening in the IT world every day and the best feature of the IT services in our ==library is that they keep updating the tools and programs in correlation with these changes==.	
	Arabic:	

Themes	Quality of IT services provided by library	
		(St5, R3)
Coding	*Negative perception by students*	
Questions		
Are you satisfied with the IT services at your library?	English: The IT services are still of a low standard in comparison with other universities. The computers, in particular, have not been updated for quite some time. The university needs to invest in modern, and faster computers as the library computers are not fast enough.	
	Arabic:	

Themes	**Quality of IT services provided by library**	
		(S20, R3)
Coding	*Negative perception by students*	
Questions		
Are you satisfied with the IT services at your library?	English: The IT services are not maintained well enough at the university. For example, if there is a problem with a computer, it can take weeks for it to be repaired and often the scanner is not working either. As a student, these services are very important and so there should be more effort to maintain the services to a high level.	
	Arabic:	

Themes	**User perceptions of training**	
		(S8, R5)
Coding	*Negative perception of training*	
Questions		
Please tell me how satisfied you are with your library's training in information literacy?	English: I am not satisfied with the training courses because our university doesn't seem to care about information literacy programs. I am not too familiar with the use of databases and other software, and it almost impossible to get training for this. Workshops for training are very rare, and I often cannot attend due to the times they run. When I started here, there was no introduction or training on how to use the library. Training should be given to new university starters in assignment structure and information literacy.	
	Arabic:	

Themes	User perceptions of training	
		(S1, R5)
Coding	*Negative perception of training*	
Questions		
Please tell me how satisfied you are with your library's training in information literacy?	English: Literacy training sessions would help me to further my knowledge and lead me to success in my studies. However, my library doesn't provide training and workshops other than some guidance on how to research books. I would like some training in assignment structures, as I don't feel I fully understand this topic, and I'm sure that other students feel the same way.	
	Arabic:	

Themes	User perceptions of training	
		(S5, R5)
Coding	*Negative perception of training*	
Questions		
Please tell me how satisfied you are with your library's training in information literacy?	English: Training courses in information literacy are a bright idea to help students to further their learning. To be honest though, there are limited amounts of courses run here. I had to seek training courses from an outside source in computer skills, as the library doesn't provide this training.	
	Arabic:	

Themes	Library communication	
		(St1, R2)
Coding	*a.* *Phone usage*	
Questions		
What kinds of communications do you use in your library?	English: <mark style="background:red">I'm not up dated with the modern devices</mark> of communication so I prefer to just use the traditional methods of speaking in <mark style="background:yellow">person face to face or over the phone.</mark> <mark style="background:red">I see no need for the use of e-mail</mark>.	
	Arabic:	

Themes	Library communication	
		(St15, R2)
Coding	*a.* *Phone usage*	
Questions		
What kinds of communications do you use in your library?	English: <mark style="background:yellow">I would rather use the phone</mark>. I find it <mark style="background:yellow">more reliable</mark> and I am <mark style="background:yellow">more comfortable</mark> using the telephone compared to other forms of communication.	
	Arabic:	

Themes	Library communication	
		(St5, R2)
Coding	*Email*	
Questions		
What kinds of communications do you use in your library?	English: <mark>E-mail is always my preferred choice</mark> especially as I can use it to <mark>contact the library from home</mark>. I can ask for book suggestions and the <mark>library staff can send me lists in their own time</mark> which is <mark>far easier than over the phone.</mark>	
	Arabic:	

Themes	Library communication	
		(St14, R2)
Coding	*Email*	
Questions		
What kinds of communications do you use in your library?	English<mark>: I mainly use email</mark> as it's <mark>faster to get the messages across</mark> and <mark>isn't time consuming</mark> like other methods of communication can be.	
	Arabic:	

Themes	Library communication	
		(Acad1, R5)
Coding	*Phone (academics)*	
Questions		
What kinds of communications do you use in your library?	English: ==I always use the phone== if I am away from my department but otherwise, ==I go to the library in person== as my department is so close to the building. If I have a list of required resources I send it by e-mail.	
	Arabic:	

Themes	Library communication	
		(Acad4, R5)
Coding	*Phone (academics)*	
Questions		
What kinds of communications do you use in your library?	English: I usually use the library network, ==phoning the librarians if I need their assistance==. ==They are always helpful== and are able to deal with my request or ==enquiry immediately==. As a result, I tend not to use e-mail or any other form of communication.	
	Arabic:	

Themes	Library communication	
		(Acad6, R5)
Coding	*Phone (academics)*	
Questions		
What kinds of communications do you use in your library?	English: During a ==course I will contact the library by phone== when there is information that I need. ==I rarely visit the library in person as I don't use books very much==.	
	Arabic:	

Themes	Library communication	
		(Acad6, R5)
Coding	*No communication (academics)*	
Questions		
What kinds of communications do you use in your library?	English: ==We don't really have communication with the library staff== as we work independently and our department provides everything for us that we need such as computers, copiers and printers. ==I rarely visit the library== because as a faculty member, we do not have the same need for communication as the students. In turn, the library focuses its communication services on the ==students rather than the faculties.==	
	Arabic:	

Themes	Library communication	
		(Admin10, R2)
Coding	*No communication (administrators)*	
Questions		
What kinds of communications do you use in your library?	English: As administrators, ==we encourage that students and academics use electronic communication tools such as e-mail, chat and the library website==. Although both our department and the library serve to provide the best support for the students, the individual work we carry out is completely different and so ==there is no need for any collaboration between our department and the library==.	
	Arabic:	

Themes	Library communication	
		(Admin2, R2)
Coding	*No communication (administrators)*	
Questions		
What kinds of communications do you use in your library?	English: ==At the moment there is no collaboration between my department and the library== but I would like to see more communication between the two. ==In the other countries, such as the USA, the cooperation between faculty and library== results in the library promoting different departments as the majority of students utilise the library regularly.	
	Arabic:	

Themes	Library communication	
		(Admin5, R2)
Coding	*No communication (administrators)*	
Questions		
What kinds of communications do you use in your library?	English: At the moment <mark>I don't see any kind of direct cooperation between us and the librarians.</mark> It might happen with other departments but the concern of our department is the educational exchange between Kuwait and other countries and therefore <mark>we don't have any reason to build a relationship with the library</mark>.	
	Arabic:	

Themes	Library communication	
		(Admin9, R2)
Coding	*Some communication (administrators)*	
Questions		
What kinds of communications do you use in your library?	English: <mark>I cooperate with the librarians for many reasons</mark>. For example, if our department <mark>needs some resources</mark>, we contact the library and they find it for us <mark>as soon as possible</mark>. This is <mark>far more convenient</mark> for us as we simply <mark>contact the staff and they sort everything else.</mark>	
	Arabic:	

Themes	Library communication	
		(Admin6, R2)
Coding	*Some communication (administrators)*	
Questions		
What kinds of communications do you use in your library?	English: <mark>Sometimes I have to collaborate with the library staff</mark> as we may need to use the library's facilities, such as a <mark>meeting room</mark>. Other than that we have <mark style="background:red">very little dealing</mark> with the library as it <mark style="background:red">does not have a direct impact</mark> on our work.	
	Arabic:	

Themes	Physical environment	
		(St14, R6)
Coding	*Positive perception of the physical environment*	
Questions		
How do you find the environment of your library?	English: The <mark>layout and design, visually, is great</mark>. <mark>It's nicely spaced</mark> so you feel like you can sit wherever you want and still <mark>have personal space</mark>. The environment <mark>is nice and quiet</mark> which helps people to find what they need and <mark>research in</mark> <mark>peace</mark> <mark>which is good.</mark>	
	Arabic:	

Themes	Physical environment	
		(St15, R6)
Coding	*Positive perception of the physical environment*	
Questions		
How do you find the environment of your library?	English: The surroundings of the library play a major role in our study habits. As the place is ==cosy and comfortable== this allows the students to ==unwind and feel relaxed==. This atmosphere ==encourages students to visit the library more frequently.==	
	Arabic:	

Themes	Physical environment	
		(St8, R6)
Coding	*Negative perception of the physical environment*	
Questions		
How do you find the environment of your library?	English: Unfortunately, at peak times the library can be very noisy and it can be hard to get on a computer as they are all being used. As a result, I am put off going to the library to study.	
	Arabic:	

Themes	Physical environment	
		(St2, R6)
Coding	*Negative perception of the physical environment*	
Questions		
How do you find the environment of your library?	English: I agree that libraries can influence people to study so that if the place provides a satisfactory learning environment, a person will be interested in coming back again. However, the library is old fashioned and boring and does not inspire me to study there. The library could really do with being refurnished as it looks very dated now.	
	Arabic:	

Themes	Physical environment	
		(St1, R6)
Coding	*Neutral perception of the physical environment*	
Questions		
How do you find the environment of your library?	English: As a student who often stays in the library for several hours, I find that the furniture is not very comfortable. However, the space for users is good as they provide separate rooms for complete privacy. The furniture should really be taken into consideration if the library wishes for people to spend much time studying here.	
	Arabic:	

Themes	Physical environment	
		(St3, R6)
Coding	*Neutral perception of the physical environment*	
Questions		
How do you find the environment of your library?	English: ==I think library's physical environment is very important for users especially students.== <mark style="background:red">Unfortunately, the decoration of the library doesn't appeal to me at all or attract me to use the library</mark> but overall I think the place is ==ok and quite colorful==.	
	Arabic:	

Themes	Physical environment	
		(Admin10, R3)
Coding	*Positive perception of the physical environment (Administrator)*	
Questions		
How do you find the environment of your library?	English: I see that all branches of KU libraries offer a variety of services designed to support the students, faculty members and visitors. ==There are plenty of meeting rooms and study areas are available for work==. ==The furniture is clean and new,== and the overall ==quality of the libraries is extremely high.==	
	Arabic:	

Themes	Physical environment	
		(Admin2, R3)
Coding	*Positive perception of the physical environment (Administrator)*	
Questions		
How do you find the environment of your library?	English: The library ==seems a suitable environment for research and study==. The buildings are ==big and open== which make for a more ==comfortable learning environment== whilst also being ==centrally placed within the university campus== making it ==easily accessible== for all students. The ==furniture inside is comfortable== with plenty of space for working; ==it's an excellent environment to relax and study==.	
	Arabic:	

Themes	Physical environment	
		(Admin7, R3)
Coding	*Positive perception of the physical environment (Administrator)*	
Questions		
How do you find the environment of your library?	English: Our library is small when compared to other Kuwait University libraries ==but it is modern with new furniture and equipment==. ==It looks good and provides a comfortable environment== for students and others to study in. It also provides ==excellent collections== that are relevant to the programs offered by the university.	
	Arabic:	

Themes	Physical environment	
		(Admin7, R3)
Coding	*negative perception of the physical environment (Administrator)*	
Questions		
How do you find the environment of your library?	English: At this point, I can't say that the physical environment is bad; however it is not attractive to me and is not particularly comfortable. The library is too small and crowded, and there is very little personal space when students are trying to study. There is too much furniture and not enough open space, leaving the library feeling very small and claustrophobic.	
	Arabic:	

Themes	Academic achievement	
		(Admin6, R4)
Coding	*Positive perception of library performance (Administrator)*	
Questions		
Do you think there is a relationship between your library and the quality of higher education produced at your university?	English: The library plays a vital role in supporting student study, moreover supports our academics. The training in the library helps students with writing assignments, and I think this training has an impact on the grades students achieve overall. A high quality library is what we are aiming to provide and I think the results the university produce are in part from the service the library provides to all users.	
	Arabic:	

Themes	Academic achievement	
		(Admin1, R4)
Coding	*Positive perception of library performance (Administrator)*	
Questions		
Do you think there is a relationship between your library and the quality of higher education produced at your university?	English: I agree that the ==library can play an effective role== and believe that any university ==cannot achieve its mission and vision without the high quality services that the library provides== to assist students and staff in their work and study. I think it is important that university ==leaders support and fund their library==.	
	Arabic:	

Themes	Academic achievement	
		(Admin9, R4)
Coding	*Positive perception of library performance (Administrator)*	
Questions		
Do you think there is a relationship between your library and the quality of higher education produced at your university?	English: If the library continues to make itself attractive to its users, it will have ==a positive impact== on the role the library plays in the students and university's overall success. In my opinion, ==our library is an excellent place for study and research== and so needs to maintain this through regular ==development and modernizing of all its services==.	
	Arabic:	

Appendix H:
Information Letter for Participants

Research Title:
The relationship between academic library usage and Perceived Personal Performance in Kuwait

Research Team Contacts	
Awadh Alharbi, PhD Student 0410 208 747 awadh.alharbi@student.qut.edu.au	Amanda Spink, Professor of Information Sciences 61-7-3138 9583 ah.spink@qut.edu.au

Description

This project is being undertaken as part of PhD for Awadh Alharbi. The project is funded by PAAET for Library and Information Science. The funding body will not have access to the data obtained during the project.

The purpose of this project is to explore perceived personal perfomance evaluation on university libraries in Kuwait, with the intention of identifying issues for future collaborative research within the structure of a PhD program. Perceived personal performance means 'users become aware or conscious of service or skill at their library'

The research team requests your assistance because it helps this research to gather valuable information in order to analyze the perceived personal performance evaluation of university libraries in Kuwait.

Participation

Your participation in this project is voluntary. If you do agree to participate, you can withdraw from participation at any time during the project without comment or penalty. Your decision to participate will in no way impact upon your current or future relationship with QUT.

Your participation will involve a questionnaire. The questionnaire will fill by students, academics and administrators at three Kuwaiti universities which will take them approximately 15-20 minutes to complete. The names of participants and the organisations remain anonymous. The study is guided by QUT ethics and guidelines. The participants are not allowed to withdraw once they submitted their questionnaire.

Expected benefits

It is expected that this project will benefit you directly through:

1. Benefit to Kuwaiti in terms of identifying the common and perceived personal performance evaluation of university libraries in Kuwait.
2. I will hand out the flyers to the participants. And I will hand my flyers to the faculties of academics and departments of administrators.
3. Benefit to your university libraries in terms identifying the major and most important evaluation in your particular universities.
4. Benefit to you in terms of being able to see what are the issues in your library, how those issues can affect your library performance and what are the solutions to solve those issues in my division level as well as the library level.
5. Benefit to organisation/QUT collaboration in terms of future research opportunity between your organisations your QUT.

The ultimate goal of this research to be able to recommend a solution that suits perceived personal performance evaluation of university libraries in Kuwait.

Risks

There are no risks beyond normal day-to-day living associated with your participation in this project.

Confidentiality

All comments and responses are anonymous and will be treated confidentially. The names of individual persons are not required in any of the responses.

For the questionnaires part of this study, the participants have to answers the questionnaires and return them to the researcher to analysis the results of their answers. It is also possible that participant's interviews will be not recorded if the participants request so for the interviews. The participants will be free to read the Ph.D. thesis that will be the result of the study once it is available through the libraries and published research papers. Nevertheless, they can rest assured that their identities will never be revealed at any stage.

Consent to Participate

The return of the completed questionnaire is accepted as an indication of your consent to participate in this project.

Questions / further information about the project

Please contact the researcher team members named above to have any questions answered or if you require further information about the project.

Concerns / complaints regarding the conduct of the project

QUT is committed to researcher integrity and the ethical conduct of research projects. However, if you do have any concerns or complaints about the ethical conduct of the project you may contact the QUT Research Ethics Officer on +61 7 3138 2091 or ethicscontact@qut.edu.au. The Research Ethics Officer is not connected with the research project and can facilitate a resolution to your concern in an impartial manner.

Appendix I:
Participant Consent Form

<table>
<tr><td>QUT</td><td>CONSENT FORM for QUT RESEARCH PROJECT</td></tr>
</table>

The relationship between academic library usage and Perceived Personal Performance in Kuwait

Statement of consent

By signing below, you are indicating that you:

1 have read and understood the information document regarding this project

2 have had any questions answered to your satisfaction

3 understand that if you have any additional questions you can contact the research team

4 understand that you are free to withdraw at any time, without comment or penalty

5 understand that you can contact the Research Ethics Officer on +61 7 3138 2091 or ethicscontact@qut.edu.au if you have concerns about the ethical conduct of the project

6 agree to participate in the project

7 understand that the project will include audio and/or video recording

Name

Signature _____

Date _____

Appendix J:
Letter of Permission

(Data Collection: Questionnaires and Interviews)

This is the English version of the letter addressed to the university libraries requesting permission to distribute questionnaires and conducting interviews in their libraries.

To: Managers of Kuwait University, American University of Kuwait and Gulf University for Science & Technology.

I am a Kuwaiti citizen sponsored by the Kuwait government (the Public Authority for Applied Education and Training – College of Basic Education) towards a doctoral degree in Library and Information Science. I am undertaken my Doctoral degree in Queensland University of Technology, Australia.

As you are aware, library services are essential elements in academic life. My research project investigates the perceived personal performance evaluation of university libraries. Since your university is one of reputable university in Kuwait, it is included in my study. I request your permission to distribute the study's questionnaires and conduct interviews with some of your faculty, administrators, and students. These questionnaires and interviews are extremely important and the backbone of the information for my research. I would greatly appreciate your help in this matter. Upon completion of this research project, I will be pleased to mail you a summary of my results.

Thank you for your assistance in advance.

Sincerely yours

Awadh Alharbi
PhD Candidate
School of Information Technology
Queensland University of Technology
2George St, Brisbane QLD 4001, Australia.
Email: awadh.alharbi@student.qut.edu.au
Tel : +16-410208747

Appendix K:
Letter of Support

(Data Collection: Questionnaires and Interviews)

To: **Whom it May Concern**

From: **Dr. Aman Salem Abdullah, Department of Library & information Science– College of Basic Education-The Pubic Authority for Applied Education & Training (PAAET)- Kuwait.**

Date: **06/ 11/2009**

Subject: **Awadh Alharbi (#6261736) – LETTER OF SUPPORT**

Mr. Awadh Alharbi (#6261736) is enrolled in the Doctor of Philosophy (PhD) program in the Faculty of Information Technology at Queensland University of Technology in Australia and he is applying for a Low Risk Human Research Ethics approval. The Faculty of Library and Information Science at the Pubic Authority for Applied Education & Training (PAAET) supports him study to be conducted in a computer laboratory in the Faculty.

If you require further information, Please do not hesitate to contact me.

Regards,

Aman S. Abdullah, Ph.D.

Chairman/ Department of Science

College of Basic Education, PAAET, Kuwait

Email: amanq8@hotmail.com

Tel: (+965)-9955 5095

Appendix L:
Approval letter of ethical clearance

Dear Mr Awadh Al Harbi

Project Title: The relationship between academic library usage and Perceived Personal Performance in Kuwait

Approval Number: 0900001203
Clearance Until: 23/11/2012
Ethics Category: Human

This email is to advise that your application has been reviewed by the Chair, University Human Research Ethics Committee, and confirmed as meeting the requirements of the National Statement on Ethical Conduct in Human Research.

Whilst the data collection of your project has received ethical clearance, the decision to commence and authority to commence may be dependant on factors beyond the remit of the ethics review process. For example, your research may need ethics clearance from other organisations or permissions from other organisations to access staff. Therefore the proposed data collection should not commence until you have satisfied these requirements.

Decisions related to low risk ethical review are subject to ratification at the next available Committee meeting. You will only be contacted again in relation to this matter if the Committee raises any additional questions or concerns.

This project has been awarded ethical clearance until 23/11/2012 and a progress report must be submitted for an active ethical clearance at least once every twelve months. Researchers who fail to submit an appropriate progress report may have their ethical clearance revoked and/or the ethical clearances of other projects suspended. When your project has been completed please advise us by email at your earliest convenience.

For variations, please complete and submit an online variation form:
 http://www.research.qut.edu.au/ethics/forms/hum/var/variation.jsp

Please do not hesitate to contact the unit if you have any queries.

Regards

Research Ethics Unit | Office of Research
Level 4 | 88 Musk Ave | Kelvin Grove
p: +61 7 3138 5123 | f: +61 7 3138 4543
e: ethicscontact@qut.edu.au | w: http://www.research.qut.edu.au/ethics/