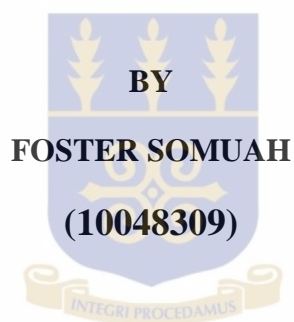


**DEPARTMENT OF INFORMATION STUDIES  
UNIVERSITY OF GHANA, LEGON**

**EVOLVING ROLES OF LIBRARY PERSONNEL IN THE DIGITAL  
AGE: CASE STUDY OF THE BALME LIBRARY,  
UNIVERSITY OF GHANA**



**THIS DISSERTATION IS SUBMITTED TO THE DEPARTMENT OF INFORMATION  
STUDIES, UNIVERSITY OF GHANA, LEGON, IN PARTIAL FULFILMENT OF THE  
REQUIREMENT FOR THE AWARD OF THE MASTER OF ARTS DEGREE IN  
INFORMATION STUDIES**

**JULY, 2013**

## DECLARATION

I hereby declare that except for references to other works which are duly acknowledged, this dissertation is the result of my own research work under the supervision of Mr. M. D. Dzandu and it has neither been presented in whole nor in part elsewhere for another degree. I take responsibility for any inaccuracies and shortcomings, which may be detected in this work.

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DATE.....



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(SUPERVISOR)

DATE.....

## **DEDICATION**

This research work is dedicated to God Almighty for giving me the strength to go through this course successfully. I dedicate it also to my wife Selina Osei, and my two lovely kids, Nana Akua Sarpomaa Somuah and Nana Kwaku Somuah.



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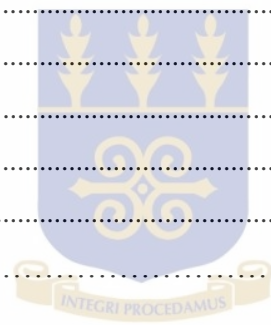
I owe a debt of gratitude to Mr Joseph Owusu Kwakye, my colleague, who supported me in transforming a pile of papers into this attractive piece of work. My thanks also go to Mr Edward Asante of Koforidua Polytechnic Library, Mr Eric Amponsah Amoahful and Sampson Mark Amegayie both of the Department of Information Studies, and Mr Chris K. A. Bubuamah of Balme library, University of Ghana.

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## ABSTRACT

The purpose of the study was to find out the evolving roles of library personnel in the digital age with emphasis on the needed skills required fit into the information age. The objectives of the study were to find out the skills needed by personnel to identify and analyze user information needs, skills required for the evaluation of available information resources, to ascertain the level of personnel ICT skills among others. The Balme Library, University of Ghana, Legon was used as the study setting. The case study methodology was adopted. The study used both primary and secondary sources of data. The questionnaire was the main data collection instrument and data collected was analyzed using SPSS. The findings pointed out that, 81.8% of the library personnel had the requisite skills to identify and analyze user information needs. It was also evident that the majority of the library staff had the needed skills in information resource evaluation (92.7%) and also considered information literacy skills (94.5%) as relevant to their work and as such were highly skilled in it. Again, the findings revealed that most (50.9%) of the library personnel were not skilled in the value addition process, but the majority (61.8%) were found to be adequately skilled in ICT. Concerning management skills, it was revealed that quite appreciable number of the personnel (41.8%) were more skilled in planning. The study concluded that even though personnel at the Balme library possessed some of the skills needed to meet the emerging challenges of providing effective and efficient services as a result of digital age, it cannot be conclusive that they possessed all the skills as conceptualised within the framework. Recommendations were also made in the area of training library personnel, collaboration with the Department of Information Studies, University of Ghana, formation of partnership with other institutions, and job rotation of library personnel to increase versatility.



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

Library and information services rendered worldwide has witnessed unprecedented shift to the digital age. Library personnel who are described as traditional gatekeepers of knowledge are in danger of being bypassed, their skills and advice ignored and unsought. The Internet with the help of search engines send users directly to the information they need or so users may think that without any need for library personnel to advice on sources, cross-references, catalogue, or classification. Information is now readily available online through the digital gateway which is constantly furnished by a number of information providers such as libraries, publishers, businesses, organisations, and individuals. Information also comes in a wide variety of formats, many of which are large, complex like video and audio and sometimes integrated namely multimedia (Sharma, 2005).

Information and communications technology (ICT) can be considered as an important weapon in the war against world challenges. When used effectively, it offers huge potential to empower library personnel in the digital age to overcome obstacles, address the most important issues facing service delivery, and above all, facilitate information flow with which the “information society” become reality. But, the digital age separates those who can access and use ICT to gain these benefits, and those who either do not have access to such technology or who are unable to use it for one reason or another (Chandel et al, 2011).

According to Rana (2008), most libraries in the Sub-Saharan Africa, the use of ICT is largely restricted to traditional library automation i.e. replacing manual operations by computerised methods. The use of information and communication technologies in libraries is not widespread and it is made difficult, if not impossible, by several challenges or constraints,

including the lack of funds to sustain the ICT infrastructure, inability by librarians/libraries to keep up with the pace of development in ICT, inadequate ICT facilities in the libraries, lack of staff with appropriate skills to manage ICTs both at the strategic and operational levels and lack of adequate knowledge and skills to manage digital information resources and to deal with issues relating to copyright and intellectual property rights in a digital information environment.

Nowadays, terms such as “knowledge-based society”, “sustainable development”, and so forth are frequently heard. In the world today, information is “a resource for development”, and “the absence of reliable information is an epitome of underdevelopment” (Huang and Russell, 2006). In fact, development on the basis of information and knowledge will be possible provided that ICT is properly and equally used and that also the digital divide thus once named the knowledge gap (Husing and Selhofer, 2002) is bridged or diminished.

According to Needleman (2007), the traditional role of information professionals was to provide access to collection in the libraries. To provide services in emerging environment, libraries adopted Web 2.0 technologies with new nomenclature ‘Library 2.0’. Casey (2006) coined the term “Library 2.0”. The concept of Library 2.0 means to take ideas and concepts from Web 2.0 and adopt them in library environment. With the induction of Web portals, wikis, blogs and instant messaging, the methods of information and knowledge sharing have been changed. These emerging tools require new skills to manage information (Philips, 2005). In some libraries, the Web 2.0 environment helps library patrons to access information, develop insight and generate knowledge. To meet the growing needs of the patrons, Heinrichs and Lim (2009) suggested that libraries needed to hire skilled librarians to provide expanded services to create and disseminate knowledge in the digital age.

According to Chandel and Mezbah-ul-Islam (2011), literature on digital libraries has been growing since 1980's. Today, there are large number of articles and books on the subject discussing various issues pertaining to digital libraries and their challenges. The digital future which was not clear during the early 1980's became well established by the end of the 1990s. Now we are in the digital age and general interest in digital libraries and digital resources are exploding globally in a continuous growth. Paperless society which was predicted in 1978 by Lancaster (1978) was not believable at the time but it is gradually becoming a reality in the present digital age.

Digital library, virtual library, electronic library are in common use forming common platforms for majority of information users. All libraries today, are trying to go digital as fast as possible aiming to build up their digital collection. Digital Library has become an important part of the collection development. This has multiplied the professional commitment and responsibilities. To acquire, convert, process and maintain such resources, one needs specialized knowledge, competence, commitment and management skill

Again, the advent of the World Wide Web (WWW) in the 1990's and the rapid development of information and communication technologies (ICTs) have revolutionized the role of various institutions. Digital age, an age that is characterized by efficient and effective conversion, storage, diffusion, and dissemination of data to users, is posing new challenges to libraries and their staff. The traditional role of libraries as repositories of the printed material is becoming obsolete, and in the current times libraries are witnessing a transformation from traditional libraries to hybrid libraries (providing access to both digital as well as print materials) in most cases and to digital libraries (provision of access to data that is in digital form) in the minority.

More so, the rapid development of digital technologies in the digital era presents individuals in the emerging information society with situations that require them to employ a growing assortment of cognitive skills in order to perform and solve problems in digital environments. These skills are often referred to as "computer/digital literacy". Eshet-Alkalai (2005) agreed that the digital age require a special kind of mindset that enables users to perform intuitively in digital environments, and to easily and effectively access the wide range of knowledge embedded in these environments.

Furthermore, the modern trends of globalization and rapid technological changes have given many challenges to the library profession. Information technology is making a significant impact on knowledge management and knowledge repositories. Today the profession has to struggle hard to sustain and survive its status, which was not earlier realized and felt. At the same time, the advent of technological advances has added prestige to the profession. Information Literacy (IL) along with information and communication technology has become significant in library environment. Librarians have to impart skills on web searching techniques, evaluation and establishing authenticity and reliability of information retrieved from internet domain to the users.

According to Ashoor (2005), the delivery of information literacy skills to students is becoming progressively more important due to proliferation of electronic resources and increased use of internet as an information resources. Information literacy is defined as the ability to recognise a need for information and from there on, being able to locate, retrieve, evaluate and use procured information effectively. Instructions and research in the digital age rely on individual skills and on the best information accessible to students and researchers. It is therefore incumbent on most universities in Africa of which Balme library is no exception, to embark on information literacy programmes for their faculty, students and researchers.

The Balme Library, one of Africa's most distinguished academic libraries is the main library of the University of Ghana Library System. It is located on the main campus of the University. Established in 1948 the Balme Library is the main and the largest library on the University of Ghana campus. In addition to the Balme Library, there are other satellite libraries in the various Colleges, Schools, Institutes, and Departments within the Faculties, Halls of Residence and the Accra City Campus, which form the University of Ghana Library Systems (UG, 2013).

A large collection and scope of the coverage of the collection make the Balme Library a very important, indeed vital part of the academic life on campus. The collection of books, periodicals and other materials it contains provides essential background knowledge to most of the subjects taught in formal lectures. It also gives access to a wider knowledge of the world through the provision of informal reading materials on a wide range of topics. The library also provides electronic resources such as CD-ROM, online databases and the Internet. The Library provides excellent facilities and products. The products include reference materials, text books, journal databases, study carrels, library instruction. The library facilities include the 24 hour reading room, Research Commons (RC), Knowledge Commons (KC), printing and binding services, photocopy services and a networked environment with computers (UG, 2013).

The Library is becoming more dynamic and continues to adapt to various technological and patron information needs. As a result of the gradual integration to digital and electronic services and products, the library require ICT inclined staffs especially in areas of core library function such as cataloguing, reference services etc. and also adequate financial budget to meet its needs in order that the library management and staff are able to provide the needed services to the University community.

Rao (2005) suggested that “the digital age can never be contained in isolation but the effort has to be multi-dimensional and multi-pronged”. As a result, this study focuses on some of several dimensions of the digital age or divide that have a meaningful relationship to the services as well as responsibility of library personnel, or better still the information sector where librarians and information professionals play influential and substantial roles by which goals and missions of a democratic and dynamic society can be considerably met.

Much publication has emerged supporting the importance of technology in libraries, however, little has been written about the library personnel who most often are the channel connecting patrons with the library technology support-services (Becker et al, 2010). Staff skills are an asset to technology used by patrons. There is less information related to the training of library personnel and the effect of the library staff's knowledge and skills level on the patron technology usage. The recent library personnel are expected to be competent in the following areas;

- i. Knowledge of client group, which encompasses understanding the theories of client services and the implication for library services, identifying patrons with special needs as the basis for designing and implementing services.
- ii. Administrative and Management skills; participate in all library planning process to represent and support services to clients, demonstrates critical thinking, problem solving, decision making, mediation skills and techniques, set long- and short term goals, objectives, strategic plans and priorities.
- iii. Evaluation and assessment of resources and Services: Understanding user needs, information services trends, resources, methods of service delivery, common methods of access and interface, and knowledge of information service providers.
- iv. Knowledge of Materials

- v. Technology, which involves possession of up-to-date computer and technology skills necessary for effective communication and presentation, acquiring familiarity with emerging technological trends and tools, support access to internet and electronic resources for users.

The emerging challenges of acquiring and providing access to electronic knowledge resources require library personnel to change their role from traditional library personnel to information scientist by learning and applying new skills to understand the evolving technologies to manage and provide quality on-line information service to the knowledge society

## **1.2 Problem Statement**

The recent technology boom has created a new digital age. The explosive growth in computer, telecommunications, information, and other technologies has had a major impact on the ways service organisations add value to the services they render to their clients.

Digital age, an era that is characterized by efficient and effective conversion, storage, diffusion, and dissemination of data/information to users, is posing new challenges to libraries and their staff. The traditional role of libraries as repositories of the printed material has been challenged, and in current times libraries are witnessing a transformation from traditional libraries to hybrid libraries, thus providing access to both electronic as well as print materials.

One of the challenges facing service delivery in academic libraries in Africa has been the readiness of the university libraries in terms of skills and knowledge to implement the digital and electronic library services. Rosenberg (2006) notes that skills in e-resources

management, e-services development, full text digitization and teaching skills are lacking in African university libraries. Anafo (2009), states that the acquisition of information literacy skills is seen as a necessity for the information age. Library personnel now need to shift their focus from providing technical assistance on using the library resources to user education.

In order to be able to implement digital library services and work in digital library environment more effectively, librarians and library staff of Balme Library should acquire skills, knowledge and ability to enable them fit into the digital library environment. This assertion was supported by Urs (2002) who recommends five main areas in which Librarians and Information Professionals should be proficient. These areas are; information user; information resources; value addition process; information technology and management; Again, a rapidly changing information delivery environment, characterised by changing user demands and ever increasing service competition has become the norm for most information service delivery organizations of which Balme Library is no exception. However, it appears most of the staff at the Balme Library do not have adequate skills in the five areas recommended by Ur (2002). Observations over a period of time showed that some of the library personnel probably did not have the needed skills in information literacy, much more impart it to students. It is perceived that there is inadequate information literacy and ICT education on the part of the staff due to lack of education and training in digital/electronic library service provision.

### **1.3 Purpose of the study**

The purpose of the study was to find out the evolving roles of library personnel in the digital age with emphasis on the needed skills required from the personnel of the Balme Library, University of Ghana, as the case study.



#### **1.4 Objectives of the Study**

The specific objectives of the study were to:

- i. determine whether the library personnel have the needed skills to identify and analyse user information needs
- ii. find out whether the library personnel have required skills to evaluate and use information resources available in the Balme library.
- iii. assess the value addition process skills of the personnel in the Bamle library
- iv. ascertain the level of ICT skills possessed by the library personnel
- v. identify management skills that the personnel of the library posses
- vi. find out whether the personnel of the library have adequate information literacy skills
- vii. suggest some measures which will help improve upon their roles/responsibilities in the current digital environment.

#### **1.5 Research questions**

The study was guided by the following research questions:

- i. What are the needed skills required by the personnel of Balme library to identify and analyse user information needs?
- ii. Do the library personnel have adequate skills for the evaluation of available information resources?
- iii. How skilful are the personnel of the Balme library in value addition process?
- iv. What is the level of ICT skills possessed by the library personnel?
- v. what are the management skills of the library personnel?
- vi. What is the level of information literacy skills of the personnel?

### **1.6 Scope of the study**

The study concentrated on the evolving roles of library personnel in Balme library focusing particularly on the skills needed to identify and analyse user information needs, information resources, value addition process, information and communication skills, management skills, and level of skills in information literacy and the roles expected from the library personnel. The work was limited to staff who are directly involved with the core library services, comprising staff from these sections in the Balme library namely: Cataloguing, Acquisition, Reader Services, Arabic Library, Circulation, Periodicals, UN Library, Students Reference (S.R.L), Africana Library, Development Information Centre (DIC), Research Commons, Knowledge Commons, and Electronic Support Unit (ESU)

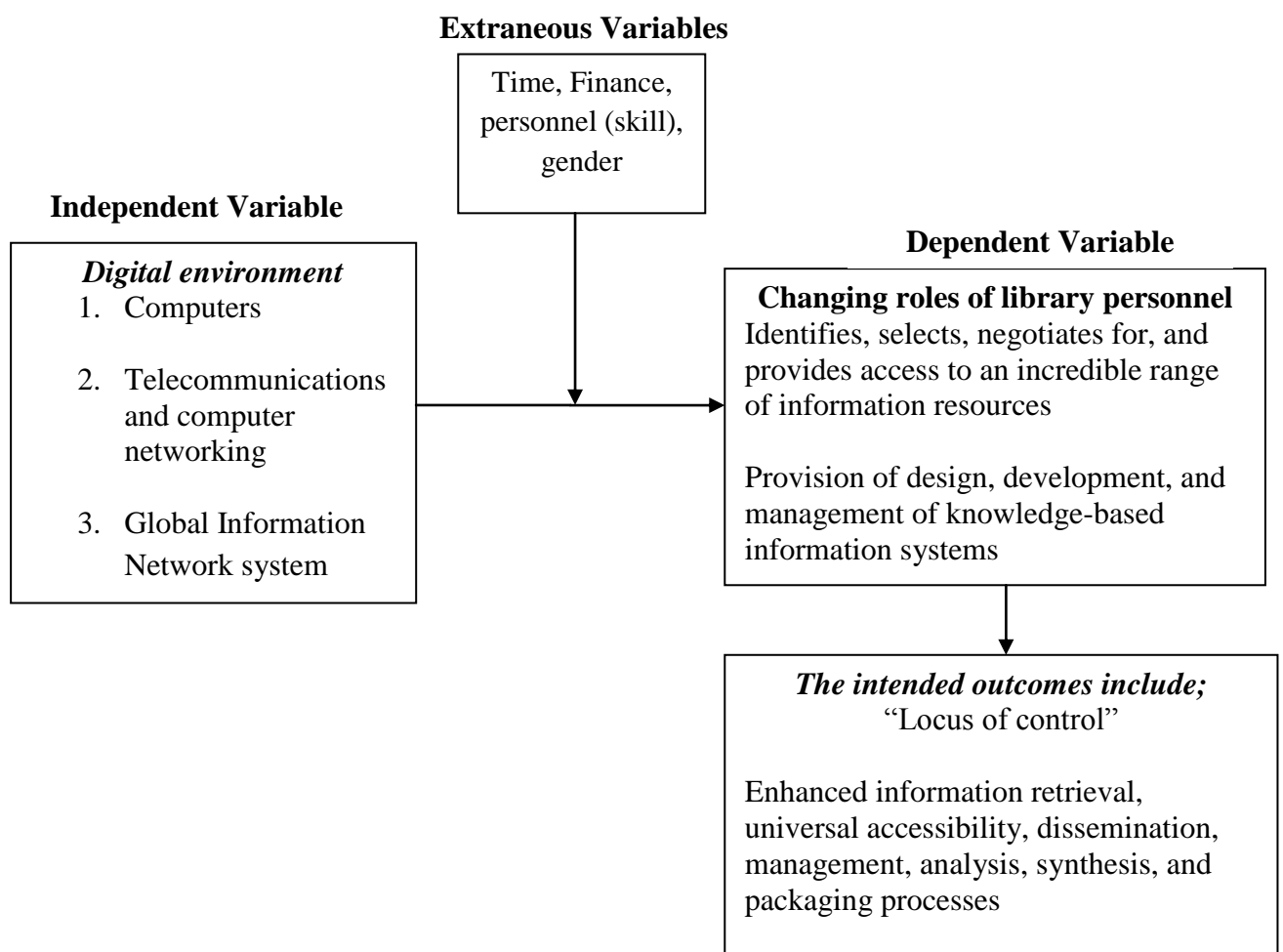
### **1.7 Significance of the study**

The significance of the study lies in the fact that the outcome would contribute to the already existing knowledge in the area of study. The study would also be of much importance to academic library staff, academicians and faculty members of University of Ghana in decision making concerning the evolving roles of the Librarian and Library staff. It would serve as a reference material for authorities of University of Ghana and other academic libraries and decision makers on the contemporary role of library personnel in the digital age.

The findings of the study would also lay bare the motivating factors of acquiring new skills in the digital age and make suggestions to help library personnel in Ghana and elsewhere to identify the need to acquire new skill and abilities, adopt new technologies in their service delivery and to realise the full benefit of it. Again, the results of this study would throw light on the challenges associated with working in digital library environment. The study may also stimulate interest and open avenues for further investigation into other aspects and areas related to this study.

### 1.8 Theoretical Framework

According to Dubin (1978) theory is the “attempt to model some aspect of the empirical world”. Accurate theory fulfils predictions of the objectives and understanding regarding the relationships among the variables of interest. A well developed theoretical model therefore allows for testing of the model and, based on these tests, revision of the model to increase its accuracy. This study was based on the changing roles of library personnel in the digital age from the point of view of Kaliammal and Thamarai Selvi (2004).



Source: Adopted from Kaliammal and Thamarai Selvi (2004)

**Fig 1: Changing roles of librarians in the digital age**

Proponents of the digital age (Deegan and Tanner, 2002; Balakrishnan, 1996; Kaliasammal and Thamarai Selvi, 2004) contend that library personnel hold high hopes for their potential to change organizations for the better. According to David (2001) in this age of Information Technology, there have been so many opportunities for the library personnel for involvement in an information-based society including electronic and multimedia publishing, Internet based-information services, global networking, and web based digital resources etc.

Sagar et al. (2011) argued that library staff is charged with selecting, organizing, and instructing patrons on how to locate and use the resources, and preserving information regardless of format or technology. The information revolution and the pervasive thinking that everything is available on the web have created new challenges to these traditional professional ethics. Acquiring and providing dependable access to electronic resources require library personnel to learn and apply new skills such as Information and Communication Technology skills and understanding evolving technologies and building a digital library to provide quality on-line information service to the users in time (Srivastava and Saxena, 2004).

The theoretical framework in fig. 1 shows that with the availability of ICT facilities such as computers, telecommunications and computer networking, global information network system and having access and use of such facilities affect the roles of the library personnel of the University of Ghana, Legon.

This framework provides important insights into the changing roles of library personnel in the digital era. For instance, Kaliasammal and Selvi (2004) confirmed that the evolution toward a digital library creates a change in the “locus of control”. “The library’s collection is moving outside the library itself. Digital collections can be stored on-site, and the individual library will have far less control than today over the actual availability of information to the end user”. This implies that, library personnel must move from that of a passive intermediary

responsible for guiding patrons to appropriate information resources toward that of a much more proactive professional whose role includes analyzing and repackaging information.

In this study, the University of Ghana, Legon was considered as the work system, with the library personnel as subjects of the research to help achieve goals and objectives of the academic library with the help of the mediating tool known as IT.

As applied to this study, the independent variables were computers, telecommunications and computer networking and global information network system and the dependent variables include identification, selection, negotiation, and provision of access to information resource.

### **1.9 Organisation of the study**

The study was organised under five chapters.

Chapter One includes background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, and scope of the study. It also looked at the significance of the study, theoretical framework, and organisation of the study.

Chapter Two reviewed literature on the following themes; user information needs identification and analytical skills, information resources evaluation skills, value addition processes skills, information and communication technology skills, management skills of library personnel in the digital age, and information literacy.

Chapter Three looked at the methodology of the study and procedures that were adopted for data collection. This included the research design, population, sample size, sampling technique, instrumentation, mode of data collection, method of data analysis and presentation of results, problems encountered during data collection and ethical consideration.

Chapter Four covered data analysis and presentation as well as discussion of major findings.

Chapter Five focused on the summary of findings, conclusions and recommendations.

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## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

According to Opoku (2005), reviewing literature that has a bearing on the problem area is an important aspect of social science and educational research. The literature review enables a researcher to place the research question in the context of previous work done in the area and also to explain and justify the research design and the procedure adopted for the study.

Creswell (2003) posit that the literature review in a research study shares with the reader the results of other studies that are closely related to the study being reported. This chapter, however, reviewed related literature on evolving roles of library personnel in the digital age with emphasis on the pertinent issues. The sections will be along the following sub-headings;

2.2 user information needs identification and analytical skills of Library personnel

2.3 information resources evaluation skills of the library personnel

2.4 value addition process skills of library personnel

2.5 information and communication technology skills

2.6 management skills of library personnel

2.7 information literacy skills and

2.8 summary of reviews

#### **2.2 User Information Needs Identification and Analytical Skills of Library personnel**

According to Alemna (2001), many library personnel still hold rather myopic view that their services and products are so essential that people will use them as they have always done without any additional effort on their part. From Alemna's point of view, most library personnel think that library users are satisfied with their service just because they come to the library. The ideology seems odd and the researcher supports the views of Alemna in the sense

that, librarianship is expected to place the user at the centre of all activities. (Dzandu, 2009: 30) also states that library personnel play a mediatory role between the sources of information and the end-user and therefore, it is necessary that the library staff provide accurate and relevant information to the user. The library personnel of today (digital age), thus needs to be proactive and assertive in order to satisfy his or her client.

One tool that is very essential to the library personnel, and enhances access to the required and relevant information for the end-user in this digital era is ICT. ICT has made the world smaller and made a lot of information from anywhere in the world available to a large number of people everywhere in the world who have access to computers. Shin and Kim (2002) are of the view that information technology has changed user preference. They further indicated that the rapid growth in this area has changed the way in which information is delivered to users and how users want to receive information. Kaliammal, and Selvi, (2004) are of the view that “the library’s collection is moving outside the library itself. Digital collections can be stored on-site, and the individual library will have far less control than today over the actual availability of information to the end user”. This implies that, library personnel must move from that of a passive intermediary responsible for guiding patrons to appropriate information resources toward that of a much more proactive professional whose role includes analyzing and repackaging information.

Being able to identify user information needs and to satisfy them, Fynn (2012) posits that with the information needs assessment, the library personnel identifies different types of users and prospective users in order to determine if there are information needs specific to each client group. This, he said, allows the personnel to identify the information needs for each target group and present information in different ways if information needs is the same for each client group; this would impact on the kind of information collected and the tools necessary for its storage, retrieval and dissemination. It will impact on the services and

products developed from that information, and the way in which they are disseminated to the target group.

Again, as libraries reinvent themselves by meeting the challenges posed by emerging technologies, they look for creative ways to engage and serve users well (ALA, 2013). Wilson (2006) indicated that apart from information retrieval there is virtually no other area of information science that has occasioned as much research effort and writing as “user studies”. Within user studies the investigation of “information needs”. This shows how relevant the acquisition of knowledge and skills in user studies is. For library personnel to be able to identify and analyze user information needs in the current information age, Coonan (2008), pointed out that there is an urgent need across the information profession for a reliable corpus of real data on information seeking behaviour, in order that libraries may address the widening gulf between existing service provision and actual user needs and expectations. According to Agyen-Gyasi et al., (2010) the mission of an academic library is focused principally on users and is driven by their needs. It involves ensuring that users are able to access all relevant information irrespective of the heterogeneity of sources and formats. In the view of Antwi (1998), user education is necessary since studies have shown that many students from developing countries have little or no experience in the use of libraries because of the limited role libraries have played in their education.

### **2.3 Information Resources Evaluation Skills of Library Personnel**

Dempsey, Russell and Kirriemuir (1996) posit that the phrase ‘information resources’ is often used to refer to books, images, bibliographic records, web pages, journal articles or other types of resources which often exist in collections that might be databases, web sites, document supply centres, multimedia documents or libraries. The variety of electronic information resources is an outgrowth of the changes in information delivery, made possible

through advances in both computer technologies, such as powerful desktop workstations, information storage and retrieval and delivery mechanisms, such as CD-ROMs and User friendly Graphical Interfaces (GUI) (Fecko, 1997).

Information and Communication Technology (ICT) has introduced “new format for carrying information in the form of CD-ROM, Online database and hard disk. The recent developments include pen drives, external hard drives and even mobile phones. These formats have been added to the traditional formats-books, journals, and audio visual media that libraries and information centres now have to manage for users, (Ogunsheye, 2000). People who are trained in the application of information resources to their work, learned techniques and skills for utilizing the wide range of information tools as well as primary sources in moulding information solutions to their problems” (Behrens, 1994; Bruce, 1997). Information resources are applied in a work situation; techniques and skills are needed for using information tools and primary sources; and information is used in problem solving (Behrens, 1994). The types of electronic information resources according to Tsakonas and Papatheodorou (2006) include full text documents, CD-ROMs, resources available on the internet such as e-journals, e-print, Online Public Access Catalogues (OPAC) and other computer-based electronic networks.

Today's users have their information needs met via a number of options. They need not come physically to the library to use print formats but can stay at home or the office and access online library resources and services via networks or authentication methods at any time. Renwick (2005), writing on the topic ‘Knowledge and Use of Electronic resources had the objectives of the study as; to determine faculty's knowledge of e-resources; faculty's access to computers and use of e-resources, and the areas of training needed by faculty to utilize e-resources efficiently and effectively and to recommend how the library could fulfil identified training needs and what strategies the library could use to improve service as well as what

areas the library could research further. According to Urs (2002) the digital age presents a challenge to information and library professionals. Information and library professionals should be knowledgeable in the resources available to service their users. They should have the ability to identify, evaluate and select the right type of information, being it print or electronic, and the nature of the resources, their characteristics, meta sources, searching and search engines, techniques and procedure of evaluation. (Gate et al., 1995) states that on the information highway, rich electronic documents will be able to do things no piece of paper can. The highway's powerful database technology will allow them to be indexed and retrieved using interactive exploration. It will be extremely cheap and easy to distribute them. In short, these new digital documents will replace many printed paper ones because they will be able to help us in new ways. To them, reading a digital document you need an information appliance such as a personal computer and ultimately, incremental improvements in computer and screen technology will give us a lightweight. Antwi (1998) is of the view that Librarians and information professionals should be trained so that they may be equipped with a wide range of personal and transferable skills in order to manage the changing environment in which they work. They should have expert knowledge of the content of information resources; provide excellent instruction and support for library and information services users and use the appropriate information technology to acquire, organize and disseminate them. Tella et al (2008) asserted that the ability to find and retrieve information effectively is a transferable skill which is useful as well as enabling successful use of electronic resources.

## **2.4 Value Addition Process Skills of Library Personnel**

It is envisaged that in the next 10years there will be major alterations in the way information/data is stored, organised, presented and disseminated. We will see a diversification of formats

and systems, so that users with diverse needs can tap into pertinent systems and services easily and more profitably than today.

*“For more than 500 years, the bulk of human knowledge and information has been stored as paper documents . . . Paper will be with us indefinitely, but its importance as a means of finding, preserving, and distributing information is already diminishing.”* (Gate et al., 1995). This assertion made by Gate (1995) in his book entitled “The Road Ahead” brings to light the need to add value to the information resources that libraries store in the form of paper document. Digitization as one of the value addition process to library collections is gradually replacing and or taking over paper collection in most academic libraries today. Barak (2001) in his article ‘Academic Libraries in the Digital Age’ opined that many libraries today are busy discarding portions of their collection and revamping reading rooms, to make room for desktop computer workstations which will provide patrons with Internet access and through its access to online documents. This is a clear indication of value addition to their collections to make it attractive and accessible to users. After all, who cares about Misty Old books? With the advanced IT skills, the library personnel should be in a position to develop systems and user interfaces to make databases as accessible as possible to users (Kaliyammal, and Selvi, 2004). There is the need for library personnel also to be proficient and skilful in Web designing, User interfaces, Databases, Electronic compilation of bibliographies, cataloguing and Classification, and Digitization as it has become a norm in this digital era.

## **2.5 Information and Communication Technology Skills of Library Personnel**

With the rapid development and ever increasing number of e- resources and a variety of different interfaces, regarding service delivery in libraries, more sophisticated searching and retrieval skills are necessary. The library personnel needs to be provided with adequate training and support in order to be aware of new development of technology, more flexible

and suitable services can then be available for users. The role of library personnel remains important and the delivery and type of service might have to adapt to the changing technology and user needs (Fynn, 2012; Dzandu, 2009). The evolving digital library requires appropriately trained library staff of the next-generation (Zhou, 2005). Users have different information needs which they expect their libraries to meet. The advent of the ICT has had tremendous effect on the growth transmission and exploitation of information in the past few years. Academic librarians like all other professionals have to adapt to and cope with the changes taking place in the environment in which they operate (Antwi, 1998)

Information activities have been guided by the developments in the field of storages, presentation and archiving of knowledge, collection development and organization of knowledge, information explosion and computers in information retrieval. Library personnel and information professional involved in information gathering, storage, retrieval and dissemination on one hand and on the other hand the computer specialists who support the library and informational professionals in this endeavour should possess a kind of knowledge and skills required to be able to function well in a digital library environment. For successful implementation of Digital library, it is essential that library and information science professionals (LIS) are well trained and possess requisite knowledge and skills in this respect. Librarianship in the present digital age is not restrained to the documents rather; the profession has now amalgamated to multifarious subfields which includes advancement of technology and its application in library services (Mishra and Mishra, 2010).

Kanjilal (2004) contended that for any library personnel to be abreast with ICT there is the need for he/she to have knowledge on resources (books, journals, Internet), teleological facilities and resources (computer, online catalogues, websites, LANs file servers etc.), and financial resources (budget) and human resources (skills for manpower training). Kanjilal, further stated that skills and competencies that are required in LIS professional include:

- Acceptance of change.
- Knowledge of user interaction with knowledge resources.
- Provision of quality service delivery
- Be adoptive, flexible and resistant.
- Be resourceful
- Posses excellent communication skills, constantly update personal knowledge base by keeping in touch with the latest development
- Create awareness among the users, make them accept the changes
- Be an information management strategist, etc.

Sharma (2005) agreed with Kanjilal (2004) that every library personnel need to have technical knowledge which is required on areas such as: Operating systems - Windows, UNIX, LINUX; Word processing, Graphics, Spread sheet & Presentations; Database Management Systems including the skills in Bibliographic Database Management Systems. Other areas include General purpose programming, networking; Web page Development and Content Management; Information retrieval software for online, CD-ROM and Internet and Library software packages, acquaintances with Digital Library Tools.

Kenan (2012) writing on the “Perceptions of Personnel at Selected Texas Community Colleges Regarding the Impact of Technology on Their Libraries” she indicated that technological innovations have transformed all areas of community college libraries. Automated library systems, office software, and Internet access have altered work processes for library personnel and have changed research methodologies for students and faculty. The purpose of her study was to explore how the adoption of technology has changed important areas of four community college libraries in Texas. Using purposeful sampling to select community colleges with high technology libraries, the study explored how the adoption of



technology by the case college libraries changed the libraries and the roles of people employed within the libraries by examining the impact of the adoption of technology on the following areas of the libraries which includes personnel and collections.

According to participants in the study, academic libraries are still important for faculty and students; transitioning to online resources has transformed library collections; library employees have adapted to and been supportive of technology; work relations have evolved within libraries and between libraries and information technology; employees with higher levels of education and technology competencies are being hired. The emphasis on this review is on the employees with high level of education and technology competencies. It suggests that library personnel continue to educate themselves especially in the area of technology to be able to perform their roles efficiently. Based on the findings of this study, implications for practice were formulated that might benefit libraries, library directors, and community colleges.

According to Myburgh & Tammara (2012), there have been changes in many areas of work, most particularly in the roles and tasks of those involved in the preservation and transmission of cultural heritage, and interpersonal information intervention. Sending, storing and receiving digital information are commonplace activities in virtual library environment. They therefore went further to state that information intermediaries – or digital librarians – in this transformed information environment must learn new skills, play different roles and possess a new suite of competencies

## **2.6 Management Skills of Library Personnel in the Digital Age**

According to Poole and Denny (2001) in their study on the topic “Technological Change in the Workplace: A Statewide Survey of Community College Library and Learning Resources Personnel” technostress caused by change is affecting library personnel, although research on its impact in two-year colleges is practically nonexistent. Their investigation examined how employees in Florida Community College Library and learning resource centres are dealing with technological change in their work environment. The results of the investigation indicated that personnel are reacting positively to the technological change. However, greater attention needs to be directed toward improving their inclusion in decision-making, revising job descriptions, and experimenting with alternative reward systems. Their recommendation goes further to support the recommendation made by Urs (2002). He said that in order to work in digital library environment more effectively, librarians and library staff should acquire skills, knowledge and ability as well as access to equipment to enable them fit into the digital library environment. He recommends five main areas in which librarians and information professionals should be proficient. Among the areas recommended is management which involve planning (strategic and tactical), resource management (finance and human resource), developing decision support systems, organisational re-engineering, and market research.

Chang & Bright (2011) address how the library middle management role has changed; assist middle managers in identifying new opportunities and broadening their horizon within middle management. They offer strategies for middle managers to be more efficient and effective in the changing era and lay out the challenges middle managers are facing to further discussions. The findings of these authors identify the causes of the changes that impact middle managers in academic libraries, through evaluation of day-to-day experiences and

literature research. Research implications are in the new roles for middle managers, including roles in communication channels, management teams, collaboration, and responsibilities.

The paper also outlines keys for being effective in middle management, including total quality management, staff readiness, and thinking outside of the box. It also addresses the cause of the changing roles for middle management and the specific impact that these changes are having on middle managers.

Selvi (2009) opined that at present, a lot of virtual libraries have been created and managed by various institutions and organizations for e-learning and teaching professional, hence library professional should enrich their management skills to play leadership role in the digital future, for organizing, managing and disseminating e-literacy to users.

The impact of information and communication technology (ICT) is one of several factors which make any management job in a library challenging and one requiring flexibility. In fact, Castiglione (2007) has commented that while library management remained almost unchallenged throughout the twentieth century, new developments with ICT mean that change is happening very fast in the twenty-first. Castiglione's article looks at the management skills required of libraries in the digital age.

Many authors report on the increase in management responsibilities faced by librarians. A Danish survey reported by Pors (2005) describes managers as being routinely involved in such managerial issues as strategic planning, benchmarking, image and branding, while Malham (2006) claims that in the increasingly corporate culture of Indian libraries, management skills are as important as professional ones.

## 2.7 Information Literacy Skills

The concept of information literacy was first introduced in 1974 by Paul Zurkowski, president of the US Information Industry Association. Information literacy has truly become an indispensable element in academic libraries. Information literacy in library services is required not only to optimize the use of library resources in teaching, learning and research but also train the users to make them aware about information sources and access authentic information from vast array of electronic information sources (Mishra and Mishra, 2010). According to Ashoor, (2005) in his case study of the KFUPM library" on the topic "Information literacy", the purpose of his study was to seek to provide an overview of information literacy (IL) from a global prospective, to highlight problems facing developing countries in initiating IL programs, and state the trends of IL, with a focus on the development of IL programs at KFUPM. The findings of his study was that IL, which is a resource-based mode of education, has created a greater need to teach students the skills of accessing and evaluating appropriate information resources and use them effectively. To emphasize on the importance of information literacy in academic libraries and the need to acquire knowledge and skill by the personnel, Rader (2002), states that the years 1973 to 2002 witnessed the publication of more than 5000 publications relating to library user instruction and information literacy.

Still on the importance of information literacy, Macgregor (2005) pointed out that if one peruses the library and information Science Abstracts (LISA), it is clear that there has been a near exponential increase in research and practitioner literature on information literacy since 2002. Such is the interest that international journals, such as library review, regularly devote entire issues to the topic. Agyen-Gysai et al (2010) noted that ILS is very crucial in the university setting because students are expected to discover useful information themselves and be able to use the said information for their assignments and project works. It is therefore

paramount for academic libraries to ensure that students acquire competencies in knowing how to learn, formulate questions and access potential sources of information

## **2.8 Summary of Reviews**

In conclusion the literature reviewed has revealed that the digital age has presented challenges to library staff in terms of provision of information to users. The conventional user education programmes aimed at equipping staff with the skills to work need to be refined and re-engineered with more emphasis on the requisite skills in information and communication technologies. Skills in areas such as management, evaluation of information resources, value additions processes, user information needs identification and analysis, and information literacy were also part of the revelation. Again, information resources continue to grow in strategic importance to academic libraries, the personnel is compelled to acquire new skills and be able to apply them in new areas beyond the traditional boundaries.

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## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter deals with the methodology employed for the study. Leedy (1993) explains methodology as a study of a particular method or methods for reaching a desired objective. Leedy is of the view that methodology is a continuing process that is ever changing and developing.

There are many research methods that can be adopted for carrying out a research in library and information studies. Many of the research methods employed have been borrowed from other disciplines. The prominent research methods used in library and information science research are social survey, historical, citation analysis, case study and experimental research (Aina, 2004). This part of the study highlights the methodology adopted for the study. It includes research design, population of the study, sampling techniques and sampling size, instrumentation, mode of data collection and analysis and field problems.

#### **3.2 Research Design**

In any research study, the researcher must conceptualize the research problem and then put it into a (structure) perspective that will guide him or her in the data collection and analysis. Such a plan and structure of research is usually known as the research design. The design is of extremely important as improper design could lead to misleading result (Opoku, 2005).

The researcher adopted a case study with quantitative approach. According to Babbie (2001), a case study is an idiographic examination of a single individual, family, group, organisation, community, or society. Its chief purpose is description, although attempt at explanation. McBurney and White (2007) defines a case study as an empirical inquiry that investigates a

contemporary phenomenon within its real life context when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used. Bryman and Bell (2007), advocate that research design is the element which provides the framework for the collection and analysis of data. The research design is the blueprint for fulfilling objectives and answering questions (Cooper and Schindler, 2006). They further states that, selection of the research design is the most complicated step because a large variety of methods, techniques, procedures, protocols and sampling plans are available.

The choice of the case study approach is due to the fact that case studies are suitable for organisational studies and are valuable because of the context in which they place the subject of the inquiry. Zack (2006), states that “one of the areas in which case study method became and have remained popular is in the areas of organisational research, where the focus is on understanding a particular work environment or structure and not necessary in predicting results in other areas”. Because case studies are intended to take the reader of the research into the world of subject(s), case studies can provide a much richer and more vivid picture of the phenomena under study than other analytical methods (Zack, 2006). This is a cheap method of collecting data and can be accomplished within a relatively short time.

### **3.3 Population**

Gravetter and Forzano (2006) describe population as the entire individuals of interest to a researcher. Although the entire population usually does not participate in a research study, the results from the study are generalised to the entire population. For the purpose of this study, the researcher used the staff of Balme Library, specifically from the various sections which includes Cataloguing, Acquisition, Reader Services, Arabic Library, Circulation, Periodicals, UN Library, Students Reference, Africana Library, Development Information Center, (DIC),

Research Commons, Knowledge Commons, Electronic Support Unit, The total population for the study was eighty six (86). They were in the category of Professionals, Para-Professionals and Non-Professionals. This excludes the following category of staff of the Balme Library; administration, accounts, and bindery preparation, transport officer, headsmen, conservancy labourers, gardeners, drivers, messengers and cleaners. These categories of staff were excluded because they are not directly involved in the core library activities. Table 3.1 is the breakdown of the population.

**Table 3.1 Population of the study**

<b>Sections</b>	<b>No. of Staff</b>
Cataloguing	16
Acquisitions	6
Reader services	9
Arabic library	2
Circulation	4
Periodicals	7
UN Library	4
Student Reference( S.R.L)	7
Africana Library	9
Development Information Center	3
Research Commons ( RC)	2
Knowledge Commons (KC)	7
Electronic Support Unit( ESU)	10
<b>Total</b>	<b>86</b>

Source: Balme Library, 2012

### 3.4 Sample Size

Faenkel and Wallen (2003) observed that sampling is the process by which a segment is selected to represent the total population as a whole. The process of sampling makes it possible to draw inferences through careful observation of variables within small proportion of the population. In sampling the main objective is to select a portion of the universe. A sample in a research study refers to any group from which information is obtained. For the purpose of this study, the researcher used the whole population as the sample size. This is because the number is small and can be managed within the time given.

### **3.5 Sampling Technique**

A sampling technique is a method of selecting a sample from population in a research. Fraenkel and Wallen (2003), stress that sampling is the process by which a segment is selected to represent the total population as a whole. The process of sampling makes it possible to draw differences through careful observation of variables within small proportion of the population. The main objective of sampling is to select a portion of the universe. A sample in a research study refers to any group from which data is gathered and the larger group to which the result is applied is called the population. However, the researcher did not adopt any sampling technique because the target population is manageable within the time given.

### **3.6 Instrumentation**

Generally, instrumentation refers to the whole process of data collection. It involves not only the selection or design of the instrument but also the procedures and conditions under which the instrument will be administered. Here several questions arise such as where, when, how and who will be collecting the data (Fraenkel and Wallen, 2003).

The instrument used for data collection was questionnaire. It was used to solicit information from the staff of the Balme library. Twumasi (2001) sees this method of data collection as an efficient way to collect statistically quantifiable information. To him, it is an efficient method in the sense that many respondent can be reached within a short period of time. The questionnaire was divided into two sections. Section A was on biographical data of respondents which include sex, educational qualification, department, position and length of service. Section B asked questions on the skills needed to identify and analyse user information needs, information resources evaluation skill, skills in value addition process, information and communication technology skills of the library personnel and information

literacy skills. The questionnaire also consisted of close-ended and open-ended questions. The close-ended questions were used in order to limit the range of response by providing alternative response. The open-ended questions were also used to enable respondent to be more expressive with regards to the topic under study.

The choice of a questionnaire as a research instrument was informed by the following;

- i) Large amounts of information can be collected from a large number of people in a short period of time and in a relatively cost effective way. The results of the questionnaires can usually be quickly and easily quantified by either a researcher or through the use of a software package
- ii) The results of the questionnaire can usually be quickly and easily quantified by either a researcher or through the use of a software package
- iii) When data has been quantified, it can be used to compare and contrast other research and may be used to measure change and
- iv) Positivists also believe that quantitative data can be used to create new theories and / or test existing hypotheses.

### **3.7 Mode of Data Collection**

To start with, an introduction letter was taken from the head, Department of Information Studies, University of Ghana, Legon to the Librarian of Balme library, University of Ghana seeking permission to conduct the study. After the permission was granted, questionnaires were administered to the respondents personally by the researcher. The purpose of the research was explained to the respondents and consent was sought before questionnaires were given out to them. The respondents here refer to selected personnel of the library. The

researcher visited the library to prepare the grounds before questionnaires were distributed. The respondents were expected to complete the questionnaire with an average time of fifteen minutes (15mins.). The kind of data the researcher collected from the respondents was mainly quantitative data. In addition to questionnaire the researcher requested documentary sources such as brochures and other relevant internally generated bulletins from management. The entire data collection exercise lasted three and a half weeks.

A total of eighty –six (86) copies of the questionnaire were administered and fifty-five (55) were completed and returned, representing 63.9% response rate. Table 3.2 presents the summary of the questionnaires distributed. Babbie (2005) is of the view that for a survey, a response rate of at least fifty percent (50%) is adequate for analysis and reporting. He further added that a response rate of sixty percent (60%) is good while that of seventy percent (70%) is very good. Therefore, a response rate of 63.9% raises no question for analysis because the percentage of the response obtained fell within the accepted domain proposed by (Babbie 2005).

### **3.8 Method of Data Analysis and Presentation of Results**

The purpose of data analysis is to obtain meaning from the data collected. Identifying patterns and themes in the data and analyzing the data quantitatively would be crucial. Data collected was analyzed through the use of Statistical Package for Social Sciences (SPSS). According to Healey (1993), SPSS is the most widely used statistical software in the social sciences. The SPSS was used because it is easier to define variables, input data and generate output or reports. Variables were coded in the variable view and the answered questionnaires (data) also entered in the data view to generate the required reports. The results were organised according to the objectives of the research and quantitative analysis used to present the results of the study.



### **3.9 Problems Encountered During Data Collection**

In the course of the collection of data, the researcher encountered some problems. Firstly, since this area of study is relatively new, data collection was a bit difficult. Secondly, the researcher had to approach the respondents several times before questionnaires were filled. The effect of these problems resulted in the delay of the data collection. Again, some of the respondents had to rush in their effort to fill the questionnaires which created the impression that some relevant information might have been overlooked by the respondents.

### **3.10 Ethical Considerations**

Researchers encounter many ethical issues that surface during data collection in the field and in analysis and dissemination of report (Creswell, 2007)

According to Fraenkel and Wallen (2003) define ethical issues as behaviour that conforms to standards of conducting a research. They further stress that, research should protect the subject of the research study from any risk. Thus, be it emotional, psychological or physical. Considering the above principle, an introduction letter was sent to the head of the Balme library to formally introduce the researcher. A brief explanation of what the researcher needs the data for was given. Consent of the research population was also sought, assuring them of confidentiality before questionnaires are sent to them. Finally the researcher adhered to the University of Ghana code of ethics for conducting research and all references acknowledged.

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## **CHAPTER FOUR**

### **DATA ANALYSIS AND DISCUSSION**

#### **4.1 Introduction**

This chapter looks at the analysis of the data collected through questionnaire and the presentation of results as well as the discussion of the findings. It analyses the data in relation to the objectives of the study. The results of the study have been presented in tables showing frequencies and percentages of the responses given by the respondents from the Balme library. The chapter concludes by discussing the findings in relation to the related literature reviewed

#### **4.2 Background of the Respondents**

The researcher sought to elicit information on the demographic data of the respondents comprising variables such as gender, highest educational qualification, the position and length of service of respondents.

##### **4.2.1 Gender of Respondents**

Out of the fifty-five (55) respondents of the Balme library who responded to the questionnaire, 37 (67.3%) were males and eighteen 18 (32.7%) were females. Thus, the majority of the respondents were males.

#### 4.2.2 Highest Educational Qualification of Respondents

**Table 4.1 Highest Educational Qualification of Respondents**

<b>Educational Level</b>	<b>Frequency</b>	<b>Percent (%)</b>
SSCE	15	27.3
Diploma	7	12.7
BA	24	43.6
MA	4	7.3
MPhil	5	9.1
<b>Total</b>	<b>55</b>	<b>100.0</b>

Source: Field Data, 2013

Respondents were asked to indicate their highest academic status. From Table 4.1, it can be observed that 15 (27.3%) of the respondents were SSCE holders, 7 (12.7%) had Diploma and 24 (43.6%) were BA holders. 4 (7.3%) were MA holders whereas 5 (9.1) had MPhil. This result shows that most of the respondents were BA holders with a few Masters Degree holders.

#### 4.2.3 Respondents Position in the Library

This table seeks to require respondents to indicate their position in the library.

**Table 4.2 Respondents Position in the Library**

<b>Positions of Respondents</b>	<b>Frequency</b>	<b>Percentage</b>
Senior Assistant Librarian	7	12.7
Assistant Librarian	6	10.9
Senior Library Assistant	19	34.5
Library Assistant	11	20.0
Junior Lib Assistant	12	21.8
<b>Total</b>	<b>55</b>	<b>100.0</b>

Source: Field Data, 2013

Out of the total number of respondents of fifty-five (55), 7 (12.7%) were Senior Assistant Librarians, 6 (10.9%) Assistant Librarians, 19 (34.5%) Senior Library Assistant, 11 (20.0%) Library Assistants and 12 (21.8%) were Junior Library Assistants. Table 4.2 shows the various positions of the respondents.

#### 4.2.4 Length of Service

Respondents were required to indicate how long they have worked in the Balme library.

**Table 4.3 Length of Service**

<b>Length of service</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Below 3 years	15	27.3
3-5years	10	18.2
6-10years	8	14.5
11years and above	22	40.0
<b>Total</b>	<b>55</b>	<b>100.0</b>

Source: Field Data

To establish how long they have worked in Balme Library, respondents were asked to state their length of service. Of the total respondents of 55, 15 representing 27.3 % had served less than three years (3yrs), 10 (18.2%) were those who fall between 3-5 years, 8 (14.2%) had worked between 6-10 years and 22 (40.0%) indicated 11years and above. It is obvious from Table 4.3 that those who had served 11 years and above were 40%.

#### 4.3 User Information Needs

In order that library personnel are able to respond to user queries, they are expected to be able to identify and analyse user information needs. This section therefore tried to find out if the respondents had the necessary skills to undertake these activities.

#### 4.3.1 User Information Identification and Analysis Skills

The respondents were required to indicate whether or not they had skill in identifying and analyzing user information needs. In response, 45 (81.8%) answered in the affirmative whilst 10 (18.2%) answered in the negative. Thus, indicating that majority of the respondents were skilled in the identification and analysis of user information needs.

As a follow up question to obtain information on their sources of skills, the respondents were asked to indicate as such. From the responses, 34 (61.8%) indicated that they acquired their skills from the library school, 19 (34.5%) indicated that they acquired theirs on the job, 1 (1.8%) obtained his or her skills from conferences and 1 (1.8%) acquired the skills by his or herself.

#### 4.3.2 Level of Skills in Identifying and Analyzing User Information Need.

The researcher required the respondents to indicate their level of skills in terms of rating from poor, average, good, to excellent. Table 4.4 presents the results of their responses.

**Table 4.4 Level of skills in identifying and Analysing User Information Needs**

<b>Indicate your level of Skills</b>	<b>Frequency</b>	<b>Percent (%)</b>
Poor	3	5.5
Average	8	14.5
Good	13	23.6
Very good	23	41.8
Excellent	8	14.5
<b>Total</b>	<b>55</b>	<b>100</b>

Source: Field data, 2013

From the respondents, 3 (5.5%) out of the total of 55 indicated their level of skills in identifying and analyzing user information needs as poor. 8 (14.5%) described theirs as average, 13 (23.6%) considered theirs to be good, 23 (41.8%) indicated theirs to be very good

and 8 (14.5%) as excellent. It can be observed that those with very good skills were in the majority. A follow up question to find out how the skills acquired have impacted on their work, the researcher required the respondents to indicate their responses by rating them as follows; minimal, average extent, appreciable extent and large extent. From the responses, 5 (9.1%) considered the impact to be minimal, 8 (14.5%) described theirs as average extent, 27 (49.1%) responded as appreciable extent whilst 15 (27.3%) said that the skills have impacted their work to a large extent.

#### **4.4 Information Resources Knowledge**

The library personnel knowledge regarding the varied information resources available in the library as well as the skill to evaluate these resources is highly imperative. This is because it will influence the kinds of materials that are consulted in response to user needs. The study therefore sought to find out respondents knowledge and skill in that regard.

##### **4.4.1 Skills Needed in Information Resources**

In order to be able to access information resources, skills of the personnel in the Blame library to be able to meet users' needs, respondents were asked to indicate whether or not they have skills in accessing and evaluating information resources available in the library.

From the responses, 51 respondents, representing 92.7% indicated that they had skills in accessing and evaluating information resources to satisfy users, with only 4 (7.3%) giving a negative response. Regarding sources of their skills, Out of the 55 responses, 27 (49.1%) said they acquired the skills from library school, 24 (43.6%) obtained their skills on the job, 1 (1.8%) got the skills from conference and 3 (5.5%) were self acquired.



#### 4.4.2 Level of Skills in Information Resources

The respondents were asked to indicate their knowledge and level of skills in the use of information resources. This is illustrated in Table 4.5

**Table 4.5 Level of Skills in Information Resource**

<b>Rating</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Poor	1	1.8
Average	4	7.3
Good	14	25.5
Very good	25	45.5
Excellent	11	20.0
<b>Total</b>	<b>55</b>	<b>100</b>

Source: Field data, 2013

From the Table, 1 (1.8%) of the respondents indicated their level of skills in information resources as “poor” out of 55 respondents, 4 (7.3%) stated average, 14 (25.5%) indicated “good”, 25 (45.5%) responded “very good” whilst 11 (20.0%) responded to the “excellent”. To find out the impact of their skills on work, the following responses were obtained. Out of the 55 responses, 4 (7.3%) stated that their skills have had minimal impact on their work. 11 (20.0%) indicated that the skills have had average impact on their work, 27 (49.1%) said the skills have had appreciable impact on their work while 13 (23.6%) indicated large extent.

#### 4.5 Value Addition Process

Respondents were also asked to indicate whether or not they had skills in value addition process.

#### 4.5.1 Skills in Value Addition Process

The researcher sought to ask the respondents as to whether or not they had the skills in value addition process. The responses revealed that 27(49.1%) responded “yes” meaning that they had the skills in value addition process. 28 (50.9%) responded “no” implying that they do not have the skills in value addition process. A follow up question to identify their sources of skills indicated that, out of the total responses, 13 (23.6%) responded that they got the skills from library school, 37 (67.3%) indicated that they acquired their skills on the job, 1 (1.8%) said he/she obtained the skills from conference and 4 (7.3%) acquired the skills by themselves.

#### 4.5.2 Level of Skills in Value Addition Process

This section sought to require from respondents to indicate their level of skills in value addition process. Table 4.6 shows the results of their responses.

**Table 4.6 Level of Skills in Value Addition Process**

<b>Rating</b>	<b>Frequency</b>	<b>Percent (%)</b>
Poor	5	9.1
Average	15	27.3
Good	19	34.5
Very good	12	21.8
Excellent	4	7.3
<b>Total</b>	<b>55</b>	<b>100.0</b>

Source: Field data, 2013

From Table 4.6, 5 (9.1%) of the respondents indicated that their value addition skills was “poor”, 15 (27.3%) stated that their level of skills in value addition process was average, 19 (34.5) were those who stated that their level were good, 12 (21.8%) indicated that they are very good in terms of their level of skills, whereas 4 (7.3%) were excellent. A follow up question on their level of skills and the impact on their work role, the responses were given as

follows; 6 (10.9%) indicated that their level of skills have had a minimal impact on their work, 19 (34.5%) stated that their level of skills have had average impact on their work, 28 (50.9%) said their skills in value addition process have had an appreciable impact on their work while 2 (3.6%) indicated that their skills in value addition process have had impact on their work to a large extent.

#### 4.5.3 Familiarity with some Value Addition Processes

The researcher listed some value addition processes and asked respondents to indicate which of them they were familiar with. Table 4.7 shows a list of some value addition processes. Multiple responses were possible.

**Table 4.7 Familiarity with some Value Addition Processes**

<b>Value addition processes</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Compilation of electronic bibliographies	15	15.4
Developing virtual libraries	10	10.3
Designing and developing user interfaces	6	6.1
Databases	21	21.6
Organizing(classification, cataloguing, indexing, abstracting	33	34.0
Digitization(Designing and developing e-contents)	12	12.3

Source: Field data, 2013

Responses from Table 4.7 indicated that, out of the total responses, 15 (15.4%) were familiar with the compilation of electronic bibliographies, 10 (10.3%) stated they were familiar with developing virtual libraries, 6 (6.1%) indicated that they were familiar with designing and developing user interfaces, 21 (21.6%) were familiar with databases, 33 (34.0%) were also familiar with organizing, whilst 12 (12.3%) stated they were familiar with Digitization. It is therefore clear that majority of the respondents were familiar with organizing.

## 4.6 Information Technology

It is important that library personnel are equipped with the necessary skills in information technology to be able to fit well in this digital age. The researcher therefore, tried inquire respondent's level of skills in information technology.

### 4.6.1 Skills in Information Technology

It was evident from the responses that 34 (61.8%) answered “yes” meaning that they were skilled in information technology, whilst 21 (38.2%) indicated that they do not have skill in information technology. The researcher therefore further tried to find out the sources of their skills. With regard to this, 25 (45.5%) said they acquired the skills from the library school, 19 (34.5%) claimed that they obtained their skills on the job, 1 (1.8%) indicated that the skills was acquired from attending conferences and 10 (18.2%) considered theirs to be self acquired.

### 4.6.2 Level of Skills in Information Technology

The digital age makes it imperative for library personnel to acquire some level of information technology. Respondents were asked to indicate their level of skills in information technology. Table 4.8 interprets their responses.

**Table 4.8 Level of Skills in Information Technology**

<b>Skills Rating</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Poor	1	1.8
Average	7	12.7
Good	17	30.9
Very good	25	45.5
Excellent	5	9.1
<b>Total</b>	<b>55</b>	<b>100</b>

Source: Field data, 2013

From Table 4.8 it was realized that only 1 (1.8%) indicated that his level of information technology is “poor”, 7 (12.7%) stated that their level of skills in information technology were average, 17 (30.9%) said they were “good” in terms of their level of skills in information technology. Again, 25 (45.5%) forming the majority indicated that they had “very good” skills in information technology whilst 5 (9.1%) of the respondents said they had “excellent” skills in information technology.

To find out if their skills in information technology have had any impact on their work, the responses were given as follows; 4 (7.3%) said their skills have had minimal impact on their work, 9 (16.4%) indicated an average impact, 26 (47.3%) stated the impact as appreciable, whilst 16 (29.1%) stated that the skills have had large impact on their work.

#### **4.6.3 Last ICT Training attended**

The researcher inquired from the respondents to state the last time they had ICT training. The results obtained from the responses showed that 18 ( 32.7%) of the respondents said they have had ICT training less than a year ago as at the time the researcher was collecting the data, 23 (41.8%) indicated between “1-2years”, whilst 14 ( 25.5%) claimed that they had ICT Training “2years and above”

#### **4.6.4 Adequacy of the Training**

The researcher sought respondents’ views on the adequacy of the training they had. It can be noted from the responses that 22 (40.0%) think that the training was enough for them to be able to perform their role efficiently. However, 13 (23.6%) consider the training as inadequate, whereas 20 (36.4%) were not sure whether the training was adequate enough for them or not. This raises the question of whether or not the training was tailored towards the needs of the library personnel.

## 4.7 Management Skills Required

The digital age has come with its demands placed on library personnel to acquire skills in management. The researcher therefore tried to ascertain whether respondent had managerial skills.

### 4.7.1 Management Skills Acquired

Respondent were asked to indicate whether or not they had skills in management. Assessment of the personnel skills in management as indicated from the responses showed 29 (52.7%) answered affirmative, whilst those who responded negative were 26, representing 47.3%. this shows that most of the respondents had management skills to meet the emerging digital age in the library. A follow up question to find out their sources of skills in management indicated that 25 (45.5%) acquired the skills in a library school, 21 (38.2) got the skill on the job, 4 (7.3%) from conferences and 5 (9.1%) acquired the skills themselves.

### 4.7.2 Level of Skills in Management

The researcher sought to determine the level of skills in management. Table 4.9 illustrates the responses.

**Table 4.9 Level of Skills in Management**

Rating	Frequency	Percentage (%)
Poor	3	5.5
Average	16	29.1
Good	19	34.5
Very good	15	27.3
Excellent	2	3.6
<b>Total</b>	<b>55</b>	<b>100.0</b>

Source: Field data, 2013

From Table 4.9, 3 (5.5%) indicated their level of skills as ‘‘poor’’, 16 (29.1%) answered ‘‘average’’, 19(34.5%) said they had good skills in management, 15 (27.3%) stated they have very good skills in management whilst only 2 (3.6%) were excellent in management in terms of skills.

Again, the researcher sought to find out the impact of personnel’s management skills on their work. With this, 3 (5.5%) considered the impact of their managerial skills to be minimal, 19 (34.5%) indicated that their management skills had an average impact on their work, 25 (45.5%) respondents claimed theirs had an appreciable impact on their work, whilst 8 (14.5%) indicated that their managerial skills had a large impact on their work.

#### 4.7.3 Management Skills Possessed

To further assess the management skills of the library personnel, some specific management skills relevant in this digital age were listed by the researcher for the respondents to indicate which of them they had. Table 4.10 illustrates the responses

**Table 4.10 Some Management Skill**

Management skills	Frequency	Percentage (%)
Planning	23	41.8
Resources Management	13	23.6
Developing Decision Support Systems	7	12.7
Market Research	5	9.1
Others	7	12.7
<b>Total</b>	<b>55</b>	<b>100.0</b>

Source: Field data, 2013

Responses from Table 4.10 interprets that out of the total responses, 23 (41.8%) responded that they were familiar and had skills in planning, 13 (23.6%) said they were familiar and had skills in Resources management, 7 (12.7%) were familiar and had skills in developing

decision support systems, 5(9.1%) stated that they were familiar and had skills in market research, whilst 7 (12.7%) indicated other.

#### **4.8 Information Literacy**

Doyle (1990) defined “information literacy as the ability to access, evaluate, and use information from a variety of sources”

##### **4.8.1 Skills in Information Literacy**

The implementation and delivery of information literacy education to users depends on factors such as attitude of users and skill of the information user. In an attempt to find out if the personnel of the Blame library had skills in information literacy, the following were their responses. From the responses, 43 (78.2%) answered “yes” indicating that they had knowledge in information literacy, whilst 12 (21.8%) answered “no”. This therefore shows that forty-three (43) out of the Fifty-five (55) respondents of the personnel have information literacy skills, and twelve (12) of the total respondents did not have skills in information literacy.

In ascertaining their sources of skills in information literacy the respondents were ask to indicate as such. With regard to this, 20 (36.4%) said they acquired the skill from the library school, 18 (32.7%) indicated that they acquired the skill on the job. Those who acquired the skills from conference were 10 (18.2%) whilst 7 (12.7%) were self acquired.



#### 4.8.2 Level of Skills in Information literacy

The researcher sought to require from the respondents to indicate their level of skills in information literacy, giving responses from a rating of poor, average, good, very good to excellent. Table 4.11 illustrates the responses.

**Table 4.11 Level of skills in Information Literacy**

<b>Rating</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Poor	4	7.3
Average	12	21.8
Good	10	18.2
Very good	20	36.4
Excellent	9	16.4
<b>Total</b>	<b>55</b>	<b>100</b>

Source: Field data, 2013

The responses showed that, 4 (7.3%) indicated their level of skills in information literacy as “poor”, 12 (21.8%) stated their level of skills as “average”, 10 (18.2%) responded as “good”, 20 (36.4%) said their level of skills were “very good”, whilst 9 (16.4) indicated their level as “excellent”. A follow up question to find out if the skills acquired have had any impact on their work role, the following were their responses. Of the total responses, 3 (5.5%) indicated that the impact has been minimal, 11 (20.0%) stated that the impact was average, 30 (54.5%) said the skills have had appreciable impact on their work and 11 (20.0%) indicated the impact as large extent.

#### 4.9 Relevance of Information Literacy Skills to Personnel

To further seek the opinions of the respondents as to whether they considered information literacy skills necessary for their work, respondents were required to indicate as such. The responses showed that an overwhelming majority of 52 (94.5%) responded in the affirmative, whilst only 3 (5.5%) responded negative. It can therefore be observed that majority of the

respondents were of the view that information literacy skills is necessary to perform their work.

#### **4.10 DISCUSSION OF FINDINGS**

The findings of the study have been discussed under the following themes

- i) User information needs identification and analytical skills
- ii) Evaluation of information resources skills of the library personnel
- iii) Personnel skills in value addition process
- iv) Information and communication technology skills
- v) Management skills of library personnel in the digital age and
- vi) Information literacy skills of the library personnel

##### **4.10.1 User information needs identification and analytical skills**

Today's user information needs vary in terms of format and presentation. Kaliasammal and Selvi (2004) confirmed that the evolution toward a digital library creates a change in the "locus of control". "The library's collection is moving outside the library itself. Digital collections can be stored on-site, and the individual library will have far less control over the actual availability of information to the end user". This implies that, library personnel must move from that of a passive intermediary responsible for guiding patrons to appropriate information resources toward that of a much more proactive professional whose role includes analyzing and repackaging information, Kaliasammal & Selvi. This assertion was supported by Shin and Kim (2002) who posit that information technology has changed user information preference. The rapid growth in this area has changed the way in which information is delivered to users and how users want to receive information.

Analyzing and packaging information obviously demands some skills. With specific reference to the skills in analyzing user information need, the situation at the Balme library could be described as laudable and must continue. The majority (81.8%) of the personnel had skills in identifying and analyzing user information needs. A follow up question to find out their level of skills also shows that majority of them indicated their level of skills as very good. Again, as libraries reinvent themselves by meeting the challenges posed by emerging technologies, they look for creative ways to engage and serve users well (ALA, 2013). This means that there is the need for library personnel to constantly sharpen their skills to be creative to engage and serve users well. By inference, the findings are in line with views of (Shin and Kim, 2002 and ALA, 2013).

#### **4.10.2 Evaluation of information resources skills of the library personnel**

It is believed that library personnel trained in the application of information resources to their work can be called information literates. They have learned techniques and skills for utilizing the wide range of information tools as well as primary sources in moulding information solutions to their problems” (Behrens, 1994; Bruce, 1997). In this definition Zurkowski suggested that 1) information resources are applied in a work situation 2) techniques and skills are needed for using information tools and primary sources; and 3) information is used in problem solving (Behrens, 1994). Concerning personnel skills in accessing and evaluating information resources available in the library, the findings pointed out that a majority of the staff, that is 51(92.7%) had skills in accessing and evaluating information resources available in the library, with only 4(7.3%) claiming they did not. Antwi (1998) is of the view that Librarians and information professionals should be trained so that they may be equipped with a wide range of personal and transferable skills in order to manage the changing environment in which they work. They should have expert knowledge

of the content of information resources; provide excellent instruction and support for library and information services users and use the appropriate information technology to acquire, organize and disseminate them. Therefore, with overwhelming majority having the skills in accessing and evaluating information resources, they could serve majority of their users and help achieve the purpose for which the library was established. They can also transfer the skills to some of the users who intend to access the resources themselves from remote corner.

#### **4.10.3 Personnel skills in value addition process**

With the advance in IT skills, the library personnel should be in a position to develop systems and user interfaces to make databases as accessible as possible to users (Kaliammal, and Selvi, 2004). There is the need for library personnel also to be proficient and skilful in Web designing, User interfaces, Databases, Electronic compilation of bibliographies, Cataloguing and Classification, and Digitization. The rapid growth in this area has changed the way in which information is delivered to users and how users want to receive information. A critical look at the findings at the Balme library shows that majority of the personnel did not have skills in value addition process. Even those with very good and excellent skills who could design systems and user interfaces put together were not up to half of the respondents. Again, some specific value addition processes were listed for the personnel to indicate their familiarity and skills in them. Findings from the responses, with multiple responses possible, not one particular value addition process obtained even 50% response. The overall findings were therefore not in line with the recommendation made by Kaliammal and Selvi (2004).

#### **4.10.4 Information and communication technology skills**

Today, information providers find themselves in an environment that is constantly changing and where the information needs should be gathered quickly and effectively. Thus, the mission of library is to promote services for the ever increasing amount of information. To work efficiently and effectively in the fast-changing digital age, library personnel should have the qualifications in providing information as well as dynamically exercising personal skills. On the issue of IT skills, it is evident from the finding that personnel at Balme library had those skills and they were acquired mainly through on-the-job, Library School, and conferences. With regard to the level of their IT skills, it was revealed that almost half of the respondents (45.5%) were “very good”. Also the finding indicated that library personnel have had adequate training within the past two years. These findings are in consonance with Dzandu, (2009) who was of the view that library personnel needs to be provided with adequate IT training and support in order to be aware of new development for effective services delivery.

#### **4.10.5 Management skills of library personnel in the digital age**

Technological change fuels the need for good management skills. There is no doubt that the impact of information and communication technology (ICT) is one of several factors which make any management job in a library challenging and one requiring flexibility. Selvi (2009) opined that at present, a lot of virtual libraries have been created and managed by various institutions and organizations for e-learning and teaching professional, hence library personnel should enrich their management skills to play leadership role in the digital future, for organizing, managing and disseminating e-literacy to users. In response to the demands of the digital age, Balme library also maintained a virtual library and therefore required personnel to acquire some managerial skills. This study therefore sought to find out from

personnel whether or not they had management skills. Twenty-nine (52.7%) out of the total respondents answered in the affirmative. The researcher believes that the figure represents the majority and therefore is in line with views of Selvi (2009).

#### **4.10.6 Information literacy skills**

The purpose of a library is to collect information and make the information available, but the eventual goal is to ensure that library users gain ready access to the information they need in a timely manner so that the information is not only collected but used appropriately. However, as a result of digital age, patrons are faced with myriad choices of information in both print and electronic media. The quality, authenticity, validity and reliability of some of the materials in electronic format via the internet cannot be guaranteed. There is the need for library personnel to be equipped with information literacy skills so that they can assist users in identifying and selecting necessary information, and using appropriate search strategies in evaluating, organizing and synthesizing the information into a meaningful state. The challenge of critically evaluating, understanding and using information by users calls for assistance from information professional.

With specific reference to information literacy skills by respondents, it was revealed that respondents had such skills. Moreover, the findings indicated that the personnel in the Balme library recognized the need for information literacy for effective service provision. These findings compare favourably with Agyen-Gyasi et al (2010) who noted that information literacy skills is very crucial in the University setting because students are expected to discover useful information themselves and be able to use the said information for their assignments and project works and so it was therefore paramount for academic libraries to ensure that students acquire competencies in knowing how to learn, formulate questions and access potential sources of information.

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## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents a summary of the study's findings in line with the objectives, and conclusion based on the findings. Recommendations have also been made based on the findings as well as suggestions for areas for further research.

#### **5.2 Summary**

The main aim of the study was to find out the evolving roles of library personnel in the digital age with emphasis on the needed skills required from the personnel of the Balme Library. The specific objectives were to determine if the library personnel had the needed skills to identify and analyze user information needs; to evaluate and use information resources available in the Balme library; to ascertain the level of ICT skills of the library personnel; to identify management skills that the personnel of the library possessed; to find out if the personnel of the library had adequate information literacy skills; and to assess the value addition process skills of the personnel in the Balme library aim at boosting service delivery.

The case study method with a quantitative approach was adopted for the study. The population for the study were in the category of professionals, paraprofessionals and non-professionals. The entire population was used and hence no sampling technique was adopted. Questionnaire was the main instrument used for data collection. The data collected was coded and analyzed using the Statistical Package for Social Sciences (SPSS). The results of the analysis were presented in tables.



Regarding the needed skills to identify and analyze user information needs, the data gathered indicated that indeed majority (81.8%) of the library personnel had those skills. These skills were acquired as a result of working for a longer period, from attending workshops and conferences, and also from the library school. Moreover, their level of skills was found to be very good.

With regard to skills in evaluating information resources, the study revealed that majority (92.7%) of the personnel at Balme library had such skills. It was also evident that their level of skills was very good.

One worrying situation that was revealed by the study was that more than half of the respondents did not have skills in value addition process. The level of value addition process with those who had these skills was found to be good. With specific reference to familiarity with some value addition processes, the revelation was that at least the personnel were familiar with processes such as: compilation of electronic bibliographies; developing virtual libraries; designing and developing user interfaces; databases; organizing; and digitization. However, it must be stressed that, individual's familiarity with multiples of the processes mentioned was not encouraging.

The data gathered showed that an appreciable number of the respondents had the requisite IT skills for service delivery in the library. Also, it was gathered that among the sources of acquiring these skills, library school training was found to be the most prominent. Again, the training given to personnel on IT was seen to be adequate. It was however, indicated by most of the respondents that they have had IT training not longer than two years ago.

As indicated earlier, another objective of the study was to identify any management skills that the personnel of the library possessed. Among the skills listed for respondents, planning and managing information resources were found to be the management aspect which the

personnel had more skills in. Unfortunately, management skills in developing decision support systems and market research which were equally crucial were very low.

Regarding using appropriate search strategies in evaluating, organizing and synthesizing information into a meaningful state, the findings revealed that majority of the respondents (78.2%) had adequate information literacy skills. It was also found that an overwhelming majority of the respondents considered information literacy skills as relevant to services they render.

### **5.3 Conclusion**

The evolving roles of library personnel in the information age implies a set of updated skills needed to face the confrontations created by the digital age, involving the transition from procuring and managing print media to electronic media, changing from passive user of information resources to active user, dissemination of information on demand to proactive digital information services to users, transition from developing the normal collection to e-resources (e-books, e-journals)

The data gathered for this study clearly showed that even though personnel at the Balme library possessed some of the skills needed to meet the emerging challenges of providing effective and efficient services as a result of digital age, it cannot be conclusive that they possessed all skills as conceptualised within the framework proposed by Kalammal and Selvi (2004). The conceptual framework proposed by Kalammal and Selvi (2004) suggested that given computers and Internet connectivity in place, library personnel should be able to identify, select, negotiate for, and provide access to an incredible range of information resources to patrons. The study therefore, concludes that there is a gap between the theoretical and empirical evidence as it pertains to the personnel at Balme library.

## **5.4 Recommendations**

On the basis of the findings of the study, the following recommendations have been made for the implementation of developing the skills required of library personnel in this era of digital age. These recommendations are made in the areas of training of library personnel; collaboration with Department of Information Studies, University of Ghana; formation of partnership; and job rotation.

### **5.4.1 Training of Library Personnel in Digital Systems**

One observation made from the findings was that in the area of value addition process, the library personnel at Balme library fell short. For example, few people had skills in digitization even though it was expected that majority of the personnel should have acquired skills in that area. To be able to overcome this problem, it is important to organize training for the personnel so that they will be abreast with such skills. This can be done through organizing workshops and conferences for the personnel. The continuous training and retraining of library personnel at Balme library will help update their skills and knowledge with regard to the new digital technologies so as to remain relevant and useful in this rapidly changing digital environment. According to Chiware (2007) the areas that training of library staff in the digital age should focus on in African University libraries are: awareness of digital projects; the tools and resources for building digital collections; collection development and management; and the marketing of the digital resources.

### **5.4.2 Collaboration with Department of Information Studies, University of Ghana**

It is obvious that the Department of Information Studies of University of Ghana is the only place where library professionals are trained. This means that most of the needed skills of library professionals are impart by the Department of Information Studies. This demands that

academic libraries in Ghana of which Balme library is no exception should form a strong strategic alliance with the Department of Information Studies, to actively participate in revamping the Department's curricular to reflect the current competitive environment and the challenges the digital era poses.

#### **5.4.3 Formation of Partnership**

In order to satisfy the needs of digital patrons, there is the need for the library to collaborate with other libraries so that resources can be shared among them. It is a truism that no single academic library can afford to acquire all print and electronic resources alone. Thus, in order to remain relevant in this digital era, it will require an urgent need for strong collaboration among academic libraries in order to share the costs of implementing modern digital technologies in their libraries and providing efficient services to their patrons. Also, this will enable the library to respond to changing needs, behaviours and expectations of its patrons and address the challenges posed by the digital technology.

#### **5.4.4 Job Rotation of Postings**

It will be beneficial if management at Balme library would practice job rotation. This is a management approach where employees are shifted between two or more assignments or jobs at regular intervals of time in order to expose them to all verticals of an organization. It is a pre-planned approach with an objective to test the employee skills and competencies in order to place him or her at the right place. This is important because library personnel will have advantage of learning the skills in different departments.

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## **Appendix**

### **DEPARTMENT OF INFORMATION STUDIES**

### **UNIVERSITY OF GHANA**

### **QUESTIONNAIRE FOR LIBRARY STAFF**

#### **EVOLVING ROLES OF LIBRARY PERSONNEL IN THE DIGITAL AGE: A CASE STUDY OF THE BALME LIBRARY, UNIVERSITY OF GHANA**

Dear respondent,

The researcher is a postgraduate student of the Department of Information Studies, University of Ghana, undertaking a Master of Arts Degree in Information Studies (Library option).

This questionnaire is being used to gather data on the above topic. I would be very grateful if you could complete the questions below to help achieve this objective. All responses will be treated with utmost confidentiality and for academic purposes only. Thank you for your kind co-operation.

Yours faithfully,

(FOSTER SOMUAH)

Please tick the appropriate answer in the boxes provided or use the space provided for long answers.

#### **Background Information of Respondents**

1. Gender: a). Male [ ☐ ] b). Female [ ☐ ]
2. Highest Educational Qualification: a).S.S.C.E [ ☐ ] b).Diploma[ ☐ ] c). B.A [ ☐ ] d).M.A [ ☐ ] e). M.Phil [ ☐ ] f).PhD [ ☐ ]
3. Please indicate your department.....
4. What is your position? a. Librarian [ ☐ ] b. Senior Assist. Librarian [ ☐ ] c Assistant Librarian [ ☐ ] d. Senior Lib. Assistant [ ☐ ] e. Library Assistant [ ☐ ] f. Junior Lib. Assistant [ ☐ ]

5. How long have you work in the Balme library? Please state.....

6. Please indicate whether or not you have skills in the following

SKILLS	Yes	No
Identification and analysis of user information needs ( Reference interviews and query formulation)		
Information resources available in the library (The Nature of the Resources, Characteristics, Meta sources, Searching and Search engines, techniques and Procedure of evaluation.)		
Value addition process (Digitization, Indexing and Abstracting, Developing and designing E-content, Compilation of bibliographies, Databases, Developing virtual libraries,		
Information technology( System study, analysis and requirement, ICT hardware and software, Computers, networking and storage, net processors-routers, gateways etc.		
Management(Planning, Resource management, Developing decision support systems,		
Information literacy		

7. Please indicate your source(s) of skills in the following

SOURCES OF SKILLS	In a library School	On the job	Conference/workshop /Seminar	Self acquired
User information needs				
Information resources				
Value addition process				
Information technology				
Management				
Information literacy				

8. How would you describe your level of skills in the following?

LEVEL OF SKILLS	Poor	Average	Good	V. Good	Excellent
Identification and analysis of user information needs					
Information resources available in the library					
Value addition process					
Information technology					
Management					
Information literacy					

9. To what extent has your training in the following impacted on your work?

IMPACT OF SKILLS ON WORK ROLE	Minimal	Average extent	Appreciable extent	Large extent
User Information needs				
Information resources				
Value addition process				
Information technology				
Management				
Information literacy				

10. Which of the following value addition processes are you familiar with? Tick as many as applicable. a. Compilation of electronic bibliographies [ ] b. Developing virtual libraries [ ] c. Designing and developing user interfaces [ ] d. Databases [ ] e. Organizing (Classification, Cataloguing, Indexing, Abstracting of resources) [ ] f. Digitization (Designing and developing of e-content) [ ]

11. Do you consider the training adequate enough for you to perform your role efficiently?

Yes [ ] b. No [ ] c. Somehow [ ]

12. When was the last time you had training ICT? Please state.....

13. Please indicate which of the following management skills that you have. a). Planning (Strategic and Tactical) [ ] b). Resources Management (Finance, Human Resource) [ ] c). Developing Decision Support Systems [ ] d). Market Research [ ]

14. Do you consider information literacy skills necessary for your work? a. Yes [ ] No [ ]

If Yes, please indicate why.....

And if No, why.....

15. Please write any comments you have, regarding the evolving roles of library personnel in the digital

.....  
 .....  
 .....  
 .....