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**INFORMATION REQUIREMENTS AND INFORMATION  
BEHAVIOUR PATTERNS OF FACULTY AT THE  
UNIVERSITY OF GHANA, LEGON**

**BY**

**OLIVIA AKOSUA KPODOE**

**A THESIS PRESENTED TO THE DEPARTMENT OF INFORMATION  
STUDIES, UNIVERSITY OF GHANA, LEGON, IN PARTIAL FULFILMENT  
OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF  
PHILOSOPHY DEGREE IN INFORMATION STUDIES**

**JULY, 2008**

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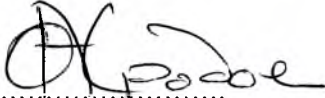


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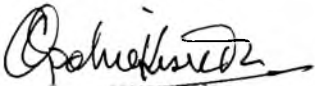
## DECLARATION

I do hereby declare that except for references to other works, which I have duly acknowledged, this thesis is the result of my own original research. This thesis has neither been presented in whole nor in part elsewhere for another degree.



.....  
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.....  
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.....  
(Prof. A. A. Alemna)

## **DEDICATION**

This thesis is dedicated to my lovely and wonderful children, Adzo Woeyram Makafui and Kwami Woenam Baku.

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## LIST OF ABBREVIATIONS

ACURIL	-	Association of Carribean University, Research and Institutional Libraries
AFUF	-	Academic Facility User Fee
AJOL	-	African Journal Online
AAAS	-	American Association for the Advancement of Science
BLRDD	-	British Library Research and Development Department
BLRIC	-	British Library Research and Innovation Centre
CDP	-	Collection Development Policy
CONSLA	-	Congress of Southeast Asian Librarians
CSF	-	Critical Success Factors
CSIR	-	Council for Scientific and Industrial Research
DATAD	-	Database of African Theses and Dissertations
DLAS	-	Department of Library and Archival Studies
GAUA	-	Ghana Association of University Administrators
GNCIC	-	Ghana National Committee on Internet Connectivity
ICT	-	Information and Communication Technology
IFLA	-	International Federation of Library Associations and Institutions
LIS	-	Library and Information Science
OCLC	-	Online Computer Library Centre
OPAC	-	Online Public Access Catalogue
RFUF	-	Residential Facility User Fee

SDI	-	Selective Dissemination of Information
SPSS	-	Statistical Package for the Social Sciences
UGcat	-	University of Ghana Online Public Access Catalogue
UTAG	-	University Teachers Association of Ghana
WRI	-	Water Research Institute
WWB	-	World Wide Web

## ABSTRACT

This thesis reports the result of a study of the information requirements and information behaviour patterns of the academic staff of selected faculties of the University of Ghana, Legon. The study also seeks to find out whether or not the professional and para-professional staff of the Balme Library are aware of the information needs of faculty and their roles in meeting these needs.

Data were collected by using a questionnaire from the sample taken from the Faculties of Arts, Social Studies and Sciences. Some of the questions for the academic staff include, level of awareness of services and resources of the Balme Library; use of the Balme Library; reasons for seeking information; general information sources used; where information sources are sought; type of information sought in the Balme Library, problems encountered whilst seeking information in the Balme Library and suggested measures to ensure effective use of the Balme Library.

The questionnaire for the Library Staff included questions on awareness of information needs of academic staff; means by which services and resources were made known to the academic staff and suggestions on ways to make the Library resources known.

Some of the findings of the study concerning the academic staff are that, majority of them were aware of the services and resources of the Balme Library but rarely use them. It was also revealed that the academic staff look for information for various reasons and they also use many sources just like their counterparts the world over. They also face

various problems including outdated materials, unavailability of materials and inconvenient reading space.

It was also found out that all the professional and para-professional staff of the Balme Library are aware that the academic staff have information needs. However, there are no laid down procedures by the Library to make its resources and services known to the academic staff. It was also revealed that the Balme Library does not have any official mechanism in place to understand the information needs of the academic staff.

Recommendations made arising from the findings for policy-making include:

1. Academic staff should make known their information needs to the Balme Library.
2. Academic staff are expected to make extensive use of the University of Ghana Online Public Access Catalogue (UGcat) where provisions are made for users' input for purchase of library materials, suggestions and many other relevant information that are promptly attended to.
3. Academic staff should accept the offer from the Balme Library to serve as Faculty/Departmental Representatives who will liaise between the Faculties/Departments and the Library in developing their sections (or subject areas) of the collection. This will be an important part of the collection building process and will ensure relevance of materials to the academic staff as well as instill confidence in the collection.
4. The Balme Library should acquire the right kinds of resources to aid research, teaching and learning.

5. The Balme Library staff must be proactive to monitor the needs of the academic environment by being in constant link with the academic staff in developing courses and reading lists for the students. Also,
6. The Balme Library should undertake periodic but regular assessment study of the effectiveness of service programmes and library support of faculty and student research, teaching and learning.
7. The Balme Library should be the first point of call for all academic staff in seeking information.

## **CHAPTER ONE**

### **1.0 INTRODUCTION**

#### **1.1 Background to the Study**

The University of Ghana is one of the six public universities in Ghana. It is situated at Legon, which is about eight kilometres away from the central business district of the capital, Accra. At the start of this study in 2005, the university community comprised 867 Senior Members, 1076 Senior Staff, and 2553 Junior Staff (University of Ghana, 2005). The University also had a student population of 27,414 out of which 1,440 were graduate students (University of Ghana, 2005). Like the other public universities, the University of Ghana is financed almost entirely by the government of Ghana. However, since the 1996/97 academic year, students have been paying facility user fees. These are the Academic Facility User Fees (AFUF) and Residential Facility User Fees (RFUF); but these fees are small and only help to supplement the running cost of the University.

Due to financial constraints affecting most public funded institutions, financing of university academic and research programmes and activities by government has been significantly reduced. In spite of this situation, the Vice Chancellor of the University of Ghana indicated in the preface to the 2005 Annual Report that the University continues to encourage and promote research efforts and advocacy for the development of the country (University of Ghana, 2005). Faculty Members, he said, engage in all types of research activities from which they produce both scholarly and extension publications. Apart from presenting these publications for promotion, the Vice Chancellor stated that they have also assisted immensely in the nation's development. Many Senior Members of the

University also serve on Boards and Committees of public and private organizations, which benefit from their experiences. This, according to the Vice Chancellor, is in line with the objective of bringing the University closer to the people (University of Ghana, 2005).

### **1.1.2 The University Library**

The University Library is an essential support subsystem of a university. The library is recognized as reflecting, even determining the intellectual status and wellbeing of the university. Thus Kwapong (1970), for example, considers the University Library as the heart if not the aorta of any university, and its academic health, intellectual vitality and effectiveness, therefore, closely depend on the state of health and excellence of its library, which is indeed, its very lifeblood. Simmonds and Andaleeb (2001) also see the academic library as the “heart” of the learning community, providing a place for faculty members and students to do their research and advance their knowledge.

To Raseroka (1999), the vision, mission and strategies which are selected by universities as a guide for meeting the core functions of teaching, learning, research and providing community service form the foundation on which the role of the university library is based. Hence perceptions held by the university’s stakeholders on the role of the library as a contributor to these core functions influence the environment within which the university library crafts its own mission and role. Wolpert (1998) is of the view that, the university education process values self-motivated discovery on the part of students and

faculty and that libraries and librarians play an important and sometimes essential role in education.

The Librarian and the library staff provide numerous services to these users, thereby helping to meet their information needs and other interests. Provision of these services has been until recently made through manual (though time tested) tools such as various types of physical catalogues, indexes and bibliographical tools. However, with the advent of the information and communication technologies (ICTs) in general and the Internet in particular, the role of the academic library has been changing.

The tools for organizing and disseminating information resources have changed physically as have the methods of accessing them. Users can now access needed information resources without stepping into any library building. They can also access the online resources including Online Public Access Catalogues (OPACs) of other libraries once the necessary infrastructure is in place.

With Internet connectivity, it is also possible to have access to unrestricted scholarly databases available in remote institutions around the world. Ready examples are the Library of Congress catalogues, the Online Computer Library Centre (OCLC), Medline and many others. There are also free electronic books and digital libraries available on the Internet for active and potential users. The Internet has thus opened the vast information resources of other libraries and similar institutions to students and faculty worldwide.

However, according to Lancaster (1979) and Hargittai (2000), the mere availability of information does not mean equal accessibility, nor does it necessarily provide a realistic chance that people may come across the types of information of most interest to them. Consequently, to ensure equal access to information needed by users, library and information science researchers must strive for a better understanding of how people seek information.

Simmonds and Andaleeb (2001) have observed that many librarians today, in fact, do not know exactly the needs of the users of their libraries because of the changes introduced by new technologies. Even those who seem to know the information needs of their users have not taken the trouble to find out the difficulties the users face in using the new technologies to search for information. It follows then that understanding the needs of our library patrons in order to deliver effective information services is such an obvious statement that it is almost embarrassing to make it (Wilson, 1995). However, merely repeating the statement is not of very much assistance to librarians and information workers in higher academic institutions that are subjected increasingly to demands for more cost effective services, and greater relevance of their work to the needs of the institutions. In addition to rhetoric, information workers need to understand the nature of information needs, how those needs are generated by the work the people do within the institution, their information seeking behaviour and the role of the formal library and other information services in delivering the information.

### **1.1.3 Background Information on the Balme Library**

#### **1.1.3.1 Background to the Balme Library**

The Balme Library was formerly called the University College of the Gold Coast Library. It was founded in October 1948 with an initial stock of about 60,000 volumes. The Library began in temporary buildings on the Achimota campus and by 1954, the Library's collection of books and pamphlets had reached 77,440 (Pitcher 1970).

In August 1959, the Library moved from its temporary quarters at Achimota to the new building at Legon. The new building was formally opened by the Governor-General. The Eral of Listowel, who also unveiled in the Catalogue Hall a bronze bust of David Mowbray Balme (first Principal of the College) after whom the Library is named. The collection that year stood at 124,857 (Pitcher 1970). It is important to point out that the building was meant to house 250,000 volumes and accommodate 350 readers (Kedem 1990). In 1965, the Balme Library used to subscribe to about 5,000 periodical titles. Now its periodical subscription is below 20 titles.

In the late 1960s, IBM introduced computer services to the university. These were at first used to prepare pay roll and later, students' records. In 1987, the university administration supplied a WANG Personal Computer to the Balme Library, but it was not until February 1989 that the PC was installed and started service to readers. (This computer, however, is no longer being used).

Since 1994, the Library has acquired more computers as a result of a CD-ROM Project initiated by the American Association for the Advancement of Science (AAAS). The

World Bank, International Federation of Library Associations and Institutions (IFLA)/DANIDA and Information for Development/ Ghana National Committee on Internet Connectivity (GNCIC) Projects.

In addition to its book stock of 385,554 volumes, the Balme Library is reasonably well equipped with a list of current electronic databases like the African Journals Online (AJOL), EBSCOhost, Emerald, Cochrane Medical Library, Oxford Online and Cambridge Journal.

The clientele of the Library are faculty members, postgraduate and undergraduate students, research workers, non-research staff, alumni, the university administration and the general university community. The Library is manned by 18 professional librarians and over 90 other staff of all categories.

The Balme Library is the currently the central library of the University of Ghana Library System. It coordinates from the main Legon Campus a large number of libraries attached to the various Schools, Institutes, Faculties, Departments and Halls of Residence of the University, most of which are autonomous. The Library is the nerve centre for academic work in the University. All academic related functions such as teaching, research and learning find their support-base in the library where all types of documents, are organised for easy access to members of the University community.

### **1.1.3.2 Recent Developments in the Balme Library**

Some of the recent developments in the Balme Library include the Library having its catalogues online called the UGCat. This catalogue can be accessed via the Balme Library Website at < <http://library.ug.edu.gh>>. This enables anybody at all, who has Internet connectivity to access the University of Ghana Library System's collection. The online catalogue provides access the holdings and their bibliographic details, where they can be located, either within the Balme Library or any of the libraries which is a part of the University of Ghana Library System.

The Library is also in the process of establishing library liaisons who will liaise with the representatives of the various faculties and academic departments in a bid to have a good and a balanced collection in all subject areas. The various representatives and liaisons have been identified and informed by the various teaching Departments and the Balme Library respectively. The introductory meeting between the groups is yet to be held.

The Balme Library has also set up a committee made up of six (6) Senior Members to write up a workable Collection Development Policy (CDP). This document will define the library's goals for its collections and will help staff members to select and acquire the most appropriate materials. The benefits of the CDP, among others, are assisting in budgetary planning and allocation of funds; forcing the library staff and the mother institution to think about the library's goal. It will also serve as a selection guidance document and will ensure consistency over time regardless of staff turnover.

There is also a programme in place to evaluate the Library's collections at the end of the 2007/2008 academic year. This time is chosen because it is believed most of the books borrowed by students would have been returned to the Library, thereby enabling the library staff to evaluate them by the use of the Conspetus Model (IFLA 2001). This model is a collection evaluation and management tool that provides a framework to systematically inventory and describe a library collection. It will also help to identify the strengths and weaknesses within the subject collection.

In addition to the aforementioned efforts, the Balme Library has had financial support from the University to acquire current and relevant materials to replenish its stock. There is also a package from the Carnegie Corporation of New York to assist the Balme Library to revamp its journal subscription with about 150 print journal titles.

## **1.2 STATEMENT OF PROBLEM**

The mission of the University of Ghana as stated in its current Strategic Plan (no date) is to develop world-class human resources and capabilities to meet national development needs and global challenges through quality teaching, learning, research and knowledge dissemination. To help the University achieve this mission, the Balme Library was established in 1959 to replace the then University College Library.

The Library is the nerve centre for academic work in the University. All academic related functions such as research, teaching and learning and extension activities find their

support-base in the Library where all types of documents are acquired and organized for easy access to members of the University community.

The problem is that, little or no data is available on how faculty members seek for and obtain relevant information sources to aid their teaching and research work. The Balme Library is reasonably well equipped with a list of current databases including the EBSCOhost, African Journals Online (AJOL), Emerald, Cochrane Medical Library, JSTOR, Oxford Online and Cambridge Journals. There is also a user education facility in place to train users in how to access these databases. In addition to the databases, the Balme Library has many bibliographic tools like indexes, abstracts, a collection of theses and a database of abstracts to theses (Database of African Theses and Dissertations - DATAD) which faculty can use for research and teaching. Faculty Members can also consult the University Librarian or any professional staff of the Balme Library to help prepare brief bibliographies which can be used for teaching and research. It is, therefore, expected that faculty members take advantage of these emerging information resources that are available in the Library and use them for their academic work.

A look at the registration record of Senior Members at The Balme Library, however, reveals that only 150 out of the 400 Academic Staff have officially registered with the Library. With this figure, there is no record on how many academic staff use the Library. Experience of the Library staff and the Library's attendance records suggest that only a small fraction of the figure actually uses the Library physically.

The questions that may be asked are: Why are academics reluctant to use the Library and its facilities? How and where do academics look for the needed information to aid teaching and learning? What other sources do they use to meet their information needs? What are the challenges the few who use the Library face? These are the issues that this study sought to investigate.

### **1.3 PURPOSE OF THE STUDY**

The purpose of this study is to investigate the information requirements and information behaviour patterns of the academic staff of the University of Ghana when they use the University Library and the emerging information resources, and the challenges that confront these users in the process. It is believed that the findings of this study will generate recommendations that would hopefully help to address the problem.

### **1.4 RESEARCH QUESTIONS**

To fulfill the purpose of the study, answers were sought for the following research questions:

1. What are the information needs of the academic staff?
2. What information sources are available to the academic staff?
3. To what extent do the information resources available in the Balme Library meet the information needs of the academic staff?
4. How do the Library's managers determine the information needs of their users?

5. To what extent does the academic staff know about and use the traditional information sources such as abstracts and indexes and the electronic resources such as the online databases and the Internet?
6. What problems do the academics encounter in using both the traditional and electronic information resources?
7. What are the factors that influence the information-seeking behaviour of the academic staff?
8. What measures are in place to ensure effective use of available resources in the Balme Library by academics?

## **1.5 JUSTIFICATION**

This study is significant in that, it is the first of its kind to be undertaken at the University of Ghana. It would, therefore, fill an obvious gap in the knowledge of this segment of academia; and would also serve as a reference point for further research into the topic under study.

It is hoped that the findings of the study would help the University of Ghana Library System take more interest in users of information resources available to them; seek to know their information needs and thereby gear its information provision strategies to meeting the expectations of users in general and the academic staff in particular.

This study is again justified because having knowledge of trends in the information requirements and the information behaviour of academics would lead to the improvement

of the University Library System's information services. It is also an important input for cost effective and cost benefit analysis of the University's information provision centre - The Balme Library.

## **1.6 DEFINITION OF TERMS**

**Collection Development** is the process of planning a library's stock acquisitions programme first to cater for immediate needs and, more importantly, to acquire a collection capable of meeting future requirements. The term implies a desire for a depth and quality of stock, but it cannot be separated from the need to exploit the collection effectively (Feather and Sturges, 1997).

**Information Seeking Behaviour:** The purposive seeking for information as a consequence of a need to satisfy some goal. In the course of seeking, the individual may interact with manual information systems (such as a newspaper or a library), or with computer-based systems (such as the World Wide Web), (Wilson, 2000).

It is also the complex patterns of actions and interactions which people engage in when seeking information of whatever kind and for whatever purpose (International Encyclopedia of Information and Library Science, 1997).

**Senior Members:** These are University Staff who are appointed by the University Council. The Minimum qualification for entry to this category of staff used to be a first degree prior to 1991. At the moment, one year of study of a Master's Programme in a

related subject field qualifies one to be appointed as a Senior Member. There are two main categories of Senior Members. These are:

1. Members of the University Teachers Association of Ghana (UTAG) Lecturers and
2. Members of Ghana Association of University Administrators and Professionals (GAUA). This group consists of some Librarians, Accountants, Medical Officers, Systems Analysts and Administrators in the central Administration of the University.

**Academic staff:** Faculty Members who have a minimum qualification of Master of Philosophy Degree and above who are involved in teaching and research activities at the University of Ghana. It must be pointed out that until recently anybody in the University System with a Master's Degree and who was involved in teaching and research was considered to be academic staff.

**Senior Staff:** Employees of the University of Ghana from the grade of Assistant Administrative Officers to Chief Administrative Officers and their equivalence. They have Diploma and first degree certificates and their equivalence in their respective fields of specialty.

**Junior Staff:** Employees of the University of Ghana from the grade of a labourer to that of a senior clerk with its equivalence. This category of staff has a minimal educational qualification of Senior High School Certificate or its equivalence. It is important to note that, some Messenger/Cleaners and Drivers have lower qualifications.

**Professional Librarians:** Are the category of staff that have a minimum of Postgraduate Diploma/ Master of Arts/Master of Philosophy or a Doctor of Philosophy degrees in Library Studies.

**Para-professional librarians:** Are the category of staff that have at least Diploma Certificate in Librarianship or a Bachelor of Arts Degree in Information Studies.

**University of Ghana Library System:** Consists of the Balme Library which is the main library of the University of Ghana, and all the libraries of Schools, Colleges, Institutes, Departments and Halls of Residence of the University.

**Library Liaison:** A librarian who is assigned to a specific academic unit as the primary contact person for a Faculty, and works closely with the library representative regarding issues related to library collection development, research and teaching support in their subject area.

**Library Representative:** A Faculty member whose primary function is to act as a link between the library and the academic unit or department.

## 1.7 SCOPE OF THE STUDY

The study concentrated on the academic staff at post in the Faculties of Arts, Science and Social Sciences during the 2005/2006 Academic Year. This is due to the fact that these

Faculties are relatively large, and therefore, the sample size selected would be representative enough for the academic community. It was anticipated that, collecting data from very busy academic staff during the academic year would be a very difficult task in terms of obtaining easy access to and response from respondents.

In view of this possibility, the researcher studied the lecture schedules and consultation periods of respondents to ascertain the convenient times to retrieve questionnaires given out. The study was limited to the use of the facilities in the Balme Library because it serves as the hub of all the libraries in the University of Ghana Library System.

The professional and para-professional staffs of the Balme Library at post were also included in the study. This is because they play a pivotal role in identifying and meeting the information needs of the academic staff.

## **1.8 ORGANIZATION OF THE STUDY**

The study is organized in six chapters.

Chapter One serves as introduction to the study. It contains the background to the study; the problem statement; purpose of the study; research questions; justification of the study; definition of terms; scope of the study and the organization of study.

Chapter Two consists of a review of relevant works on the study. The review covers these themes: models of information seeking behaviour, information needs in general and information needs of academics in particular. Factors influencing information seeking

behaviour as well as subject discipline differences were also covered. The availability and use of electronic resources and information seeking behaviour on the Ghanaian and the African scenes were also reviewed.

Chapter Three discusses the Methodology. Here, the research design is defined. The selection of population is described, and the population characteristics and the sample size defined. The instruments for and mode of data collection are also discussed and justified. The Chapter also includes a discussion of the strengths and weaknesses of the methodology.

Chapter Four deals with the presentation and analysis of data collected. This involves the use of frequency tables and percentages derived by the use of the Statistical Package for the Social Sciences (SPSS) software. Sub-topics discussed in the chapter concerning the Academic Staff as respondents include biographical information; level of awareness of resources and services; how respondents got to know about the Library's resources and services; use of resources and services; use of the Balme Library; types of materials sought in the Balme Library; information seeking; general information sources used and problems encountered in the Balme Library during information seeking.

Various sub-topics discussed in this chapter concerning the Library Staff as respondents include background information, their awareness of information needs of academic staff; means by which library professionals make resources and services known and suggestions on how to make library resources and services known to the academic staff.

Chapter Five contains the discussion of findings of the study. . The level of awareness of resources and services; use of resources and services; information seeking; use of the Balme Library and problems encountered during information seeking; and measures to ensure effective use of the Library resources were discussed in relation to the academic staff. Discussions concerning the Library staff centred on promoting the Library's resources and services; user needs assessment; improving Library services and resources.

Chapter Six contains the summary of findings, conclusion and recommendations. The chapter recommended the necessity for the academic staff to make their needs known to the Library so that steps could be taken to address them. Included in this chapter also are ways in which The Balme Library must familiarize the academic staff with the Library's resources and also market her services and resources for better patronage. The need to undertake periodic but regular assessment study of the effectiveness of services, programmes and library support of faculty and student research, teaching and learning was also touched on.

The chapter then concluded by emphasizing the need for both the Library staff and the academic staff to work together in building and maintaining a healthy library collection to aid teaching, learning, and research.

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## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter is a review of the literature related to this study. This section of the study looks at:

- i) Models of information seeking-behaviour
- ii) Information needs in general
- iii) Information needs of academics
- iv) Factors that influence information seeking-behaviour
- v) Subject discipline differences
- vi) Availability and use of electronic resources
- vii) Information seeking-behaviour of various groups on the Ghanaian scene.

This chapter is a very important aspect of the study because the literature reviewed serves as a primary basis to support arguments or counter-arguments that emanate from the study.

#### **2.2 Models of Information Seeking Behaviour**

According to Ellis (1993), traditionally, the field of user studies has been characterized by a rather stereotyped approach to research design and an orientation toward quantitative methods, the most frequently used technique being to employ some form of structured questionnaire and basic statistical analysis. To Ellis, this is ideal for obtaining an overall quantitative picture of information used by a particular group, but it is ill-suited for

providing a more authentic picture of researchers' perceptions of their information environments and more integrated accounts of their information-seeking activities.

There are several information-seeking behaviour models. These include Wilson's (1981 and 1996) models of information-seeking behaviour; Dervins's (1983) sense-making theory; Ellis's (1989 and 1993) behavioural model of information seeking strategies and Kuhlthau's (1991) model of stages of information-seeking behaviour, among others . These models are concerned with, on the one hand, generalized behaviours surrounding the actual initiation of information-seeking and, on the other, with a broader perspective of the information search. For example, Ellis (1989) created a behavioural model of six characteristics: Starting-Chaining-Browsing- Differentiating- Monitoring- Extracting- Verifying and Ending by studying the information seeking patterns of social scientists through tape recorded interviews with academics from various departments within the Social Science Faculty. These interviews provided enough information for a detailed and accurate account of the perceptions of the researchers of their information seeking activities to be possible and to enable an authentic picture to be constructed of these activities.

Of the characteristics, Ellis notes that the detailed interrelation or interaction of the features in any individual information-seeking pattern will depend on the unique circumstances of the information-seeking activities of the person concerned at that time. Leckie et al. (1996), however, proposed a model of information-seeking processes based on a review of research of three different types of professionals: engineers, health care

professionals and lawyers. Through their synthesis of research, Leckie et al. summarized that engineers rely heavily on oral communication from co-workers and supervisors; libraries are little used; personal files, knowledge and experience are rated highly.

Leckie, et al. posit that information needed depends heavily on the type of task being undertaken (e.g. design and testing of a new product will require information regarding blueprints, drawing plans, testing procedures for simulating product behaviour, etc.), and that engineers tend to under-use electronic databases and resources. Two reasons given for this are that information systems are considered to be difficult to use and do not meet the information needs of engineers. This has clear links with the findings of both Gerstberger and Allen (1968), and Pinelli, et al. (1991). Gerstberger and Allen found that a relationship exists between accessibility, frequency of use, degree of experience and ease of use. Pinelli, et al. found that relevance, accessibility and technical quality appeared to exert the greatest influence in the use of the four information products.

The model that Leckie et. al. (1996) propose is particularly relevant to this study in that it focuses on the information needs of professionals in particular work settings but could be applicable to users in a variety of contexts, including lecturers, researchers and students in higher and further education. It may prove to be particularly useful in eliciting understanding of the work roles and tasks in relation to the different academic status and subjects. It is based on the assumption that the roles and tasks undertaken by users during the course of their work, or study, initiate specific information needs, which then give rise to information-seeking behaviours. Further, it suggests that information-seeking



is influenced by a number of interacting variables that can affect the outcome, and may occur simultaneously.

Leckie, et al. argue that professionals lead complicated work lives that require them to adopt numerous roles, such as service provider, administrator/manager, researcher, educator and student and that within these roles are specific tasks such as assessment, counseling, supervising and report writing. The information needs then arise from the specific tasks associated with the work role of the individual and are influenced by many factors, including the role and task, and also demographics of the individual, the context (situation specific, internally or externally prompted), frequency (recurring or new), predictability (anticipated or unexpected), importance (degrees of urgency) and complexity of the task. These are known as the characteristics of the information need.

Factors affecting information-seeking include the sources of information used, which can be many and varied, and awareness of information, which can be direct or indirect (through colleagues, databases, handbooks, etc.) or non-existent. Outcomes are the results of the information seeking processes that meet the task and role that instigated the need.

### **2.3 Information Needs**

The literature points out a confusion about the concept of information use, which is mainly due to the failure of the majority of researchers in the field of user studies to distinguish between information use, needs, demands, wants and requirements. The reason for this failure lies, as Wilson (1981) observes, with the troublesome concept of

information. In this regard, numerous definitions have evolved, seeking to distinguish, for example, among “data”, “information” and “knowledge”. According to Wilson, the multiple uses of the term information cause confusion because researchers sometimes fail to distinguish between one sense and another, or simply leave the reader to discover which sense is meant as s/he reads the paper or report.

According to Havelock (1979), needs are very significant messages within the human system. They are the dynamic forces which create instability within the person – system and which lead to a cycle of behaviours that ultimately will correct this instability.

In the day-to-day work, lack of self-sufficiency constitutes an information need. The information need represents gaps in the current knowledge of the client. Apart from the expressed or articulated needs, there are unexpressed needs which the client is aware of but does not like to express (Devadason and Lingam, 1997). Another category of needs is the deliquescent or dormant need, which the client is unaware of, but the information services provider may be able to bring to light these needs (Cronin, 1981). A need is specific, generally time bound- either immediate or deferred. The information provided for the need will be used; in the case of interest, the information provided may be used or may not be used.

According to Crawford (1978), information needs depend on eight factors. These are:

- i. Work activity
- ii. Discipline

- iii. Availability of facilities
- iv. Hierarchical position of individuals
- v. Motivation factors for information need
- vi. Need to take a decision
- vii. Need to seek new ideas and the
- viii. Need to make professional contributions, etc.

Information needs are, however, affected by a variety of factors listed by Paisely (1968) as:

- a. The range of information sources available
- b. The uses to which the information will be put
- c. The background, motivation, professional orientation and other individual characteristics of the client (including his/her awareness of the information resources)
- d. The social, political, economic, legal and regulatory systems surrounding the client and
- e. The consequences of information use.

#### **2.4 Information Needs of Academics**

The idea of identifying the Critical Success Factors Approach as a basis for determining the information needs of managers was proposed by Daniel (1961) but popularized by Rockart (1979). The idea is very simple: in any organization certain factors will be critical to the success of that organization, in the sense that, if objectives associated with the factors are not achieved, the organization will fail - perhaps catastrophically so.

Rockart (1979), by referring to Daniel (1961), gives the following as examples of the CSFs: new product development, good distribution, and effective advertising for the food processing industry - factors that remain relevant today for many firms (Huotari and Wilson, 2001).

Green, Loughridge and Wilson (1996) studied the management information needs of academic Heads of Department in 16 English Universities. The researchers interviewed 44 academic Heads of Department, 19 senior administrative and academic support staff, 15 Chief Librarians and one Deputy Librarian. The objective was to find out the management information needs of Heads of Department and the role that University Librarians and senior administrative and academic support staff play or might play in satisfying those needs. The Critical Success Factors (CSF) Approach adopted was found to be an effective means of identifying and correlating departmental goals, the factors vital to their achievement, and related information needs.

Goals, Critical Success Factors and management information needs were found to vary according to the age and culture of the universities, the research and teaching activities and academic disciplines of departments. Heads of Department were found to be largely dependent on informal networks of contacts for their information; they did not expect to receive any management information support from their libraries. They also believed that financial and other management information provided by university administrators was often provided too late and was frequently inadequate, inaccurate, difficult to access, and too intricate or cumbersome to use.

Administrative staff found it difficult to identify and focus on the information needs of academic Heads of Department because their own primary concern was to meet the information needs of their university's senior management team and outside bodies. They, therefore, had neither the time nor the resources to devote to what were considered to be essentially second-order information needs. Senior library staff generally felt that they had neither the expertise nor the resources to support academic Heads of Department in their management role. Where support was provided by the library, it was invariably on an ancillary or ad hoc basis.

The report makes a number of recommendations for improving the organization of management information provision to academic Heads of Department. Among these was the development of management skills education and training for Heads of Department.

The University of Iowa Libraries Needs Assessment Group (2002) also developed and implemented a faculty and staff needs assessment of their library resources and services. The results gave the libraries the empirical support required to justify requests for increased fiscal allocations, and also pinpointed the areas, services, and resources faculty and staff want and expect from the University libraries. Contrary to popular sentiment, the results revealed that faculty and staff would like the libraries to invest more in the acquisition of print books and journals, in addition to electronic journals and expanded remote access. Even though faculty and staff are independent users, they rely on and prefer human contact and individual assistance.

This study also revealed that faculty and staff underutilized many of the libraries' resources and services simply because they were not aware of their existence. Like undergraduates and professional students, faculty and staff want expanded study space and improved physical facilities.

Ocholla (1996), in a survey research, studied information-seeking behaviour by academics at Moi University, in Kenya. The results obtained established that a great number of academics depended on libraries and colleagues for information. Though the academics heavily depended on textbooks for information, they displayed great interest in, and use, current and research-oriented information sources. It was also established that the nature of discipline and level of programme influenced the information seeking behaviour of academics. Lack of awareness of information services, and non-use of current awareness services, among others, at the University contributed to limited access to and use of information resources. The academics in the study also indicated that, they needed information mainly for career development to circumvent the "publish or perish syndrome" and also for their professional and occupational needs. The study concluded that despite insufficient relevant information resources at the Moi University Library due to budget cuts, academics still depended on the library for their information needs.

## **2.5 Factors Influencing Information-Seeking Behaviour**

The origins of human information seeking-behaviour are found in work on users of libraries and in readership studies in general (Wilson, 2000). The author posits that the post-war increase in the amount of scientific literature led in 1948 to the Royal Society

Scientific Information Conference (1948), which marked the beginning of the modern study of human information seeking behaviour.

Information seeking has often been compared to a rational problem-solving process, where a gap in knowledge triggers a conscious search for information. Solomon (2002) argue that this may apply to some situations, but that in most cases the information-seeking process is dynamic and changeable; it is dependent on the context and to a large extent on the individual performing it. Some people may plan and structure their searches, while others gather information in a more flexible and spontaneous fashion. The reasons behind different information approaches may lie in the context, but may also be due to the person's inner processes and needs (Solomon, 2002).

### **2.5.1 Psychological Factors**

The research tradition within Library and Information Science (LIS) has in recent years increasingly focused on users' search behaviour. Within this tradition a particular emphasis has been on the context of information seeking (Solomon, 2002). It has been acknowledged that the information-seeking process is dependent on task (Bystrom, 2000), discipline (Ochola, 1999) or stage of the research process (Kuhlthau, 1993). This research tradition, where the individual is studied as part of the context, has provided a valuable understanding of groups of users in a sociological sense.

In order to gain a full understanding of information behaviour, it would be vital to further extend the focus to the user's psychological processes. Allen & Kim (2001) have highlighted the importance of accounting for both the context and the individual

characteristics, as search behaviour is likely to evolve through interaction between the two. Understanding of psychological characteristics can shed light on both variability and patterns in information seeking (Wilson, 2000).

Wilson's model of information behaviour shows how psychological, demographical, role-related, interpersonal, environmental and source-related characteristics influence the information-seeking process. The decision to seek information is dependent on motivation that may have a cognitive origin or be emotionally based as in the need to reinforce previous values. Before the relevant information is retrieved the searchers must overcome possible barriers, which sometimes are psychological. They must experience the situation as rewarding enough and themselves as competent enough to actually take the final decision to seek information (Wilson, 1981; Wilson & Walsh, 1996).

Motivation and interest influence the way information is used. The more interested we are in the topic, the more information we seek about it. Since people have a limited capacity for assimilating new information, particular attention is paid to information which can be related to previous knowledge. The personal frame of reference forms a filter that picks out familiar information ( Leckie & Pettigrew, 1997). Information that confirms our previous values are particularly welcome and facts that do not correlate with our own views are often ignored (Radecki & Jaccard, 1995). Information sources likewise tend to be chosen on base of familiarity rather than potential usefulness. This also applies to information professionals like librarians (Ingwersen, 1982).

### **2.5.2 Cognitive Styles**

Cognitive styles are another aspect of knowledge creation with an influence on information behaviour. Individual differences related to cognitive styles and study approaches come into play in database searches, on the Internet and in virtual environments (Ford, 2000; Ford *et al.*, 2001 ; Kim, 2001). Students with a holistic learning style are, for instance, more explorative in their searches, while their serialist counterparts build their searches in a narrower stepwise fashion (Ford *et al.*, 2002).

### **2.5.3 Emotional Factors**

In order to get a complete picture of information behaviour, the consideration of affective and conative elements is important in addition to cognitive ones (Solomon, 1997). The cognitive uncertainty in relation to unfamiliar situations or problems arises as a consequence of one's rational judgements of required knowledge level and progress in work. Affective uncertainty is related to insecurity and pessimism (Wilson *et al.*, 2002). In the use of information systems merely technical skills are not enough; also a positive attitude and self-confidence are needed in order to cope with the systems. Emotional aspects like feelings of frustration, impatience, information overload, resistance to new information and computer aversion may form barriers to the search process (Nahl, 2001). The feeling of uncertainty, often expressed as anxiety or worry, is particularly strong at the beginning of a search process, when the users become aware of their lacking knowledge about the topic (Kuhlthau, 1993). According to Venkula (1988), although anxiety in connection to intellectual work usually is a temporary state, certain individuals

may be particularly vulnerable to feelings of stress and worry in an information-seeking context (Heinström, 2002).

Although the process of seeking information may involve a wide range of negative experiences of frustration and anxiety, it may also trigger positive responses like excitement and satisfaction (Solomon, 1997). A successful search process evokes positive emotions, such as joy, interest and exhilaration, and consequently encourages the searcher to continue and extend the searches (Nahl, 2001). As topical knowledge is extended, confidence usually grows. The thoughts develop from being vague and confused to being clear and knowledgeable. Information seeking is consequently a cognitive and emotional process of constructing a personal understanding of a topic (Kuhlthau, 1993).

A study by Mills and Bannister (2001) reported on motivators and demotivators that influence the information seeking behaviour (all the activities and experiences in which academics may expect to involve themselves in searching for information) of academics in the choice to use or not to use the library or certain other sources of information in Charles Sturt University, Wagga Campus, Australia.

The motivators and demotivators identified by the study are linked to:

- 1 Sources (factors external to the user including colleagues, libraries, personal barriers, databases and librarians)
2. Affective (factors internal to the user including emotions, feelings, attitudes and the personalities users have)

3. Image (mental representations of the library and the librarian; ways in which the image is created and how this image motivates and demotivates information seeking behaviour.

Other sources identified by the study, which influence source choice and image include:

- a. Technology- this plays a big part in image construction of libraries and librarians. Academics are also concerned about their capacity to cope with technological changes.
- b. Time constraints in professional lives. This is concerned with potential loss of self esteem, perceptions of information overload, image of librarians and libraries and understanding library policies.

Identification of affective realm (feelings, emotions and beliefs) as a factor which influences information seeking behaviour by academics is very significant because affective response to sources, technology, librarians and libraries influences the creation of motivators and demotivators.

The study concluded that, image is both a key motivator and demotivator in the use or non use of a library and that it is valuable for the library manager to better understand what can be changed to motivate clients to make a better use of the library.

## **2.6 Subject Disciplines Differences**

A number of studies looking at differences in discipline and how they might affect information needs and information-seeking behaviour have been undertaken. For example, a study by Herman (2002) examined the transition to the electronic information era in academia. He identified the influence of disciplinary-rooted differences in the conduct of research and their influence on information needs. The study concluded that, although scholarly research proceeds within a clearly discernible generic framework, the academic culture surrounding the disciplinary areas brings about characteristic differences in thought processes and work habits.

Similarly, although research into how task differences might affect search performance has been carried out (for example, Saracevic and Kantor, 1988; Marchionini, 1989, and Kim and Allen, 2002), these studies used set tasks and looked at how, for instance, complexity of task affected precision (Saracevic and Kantor, 1988). The experimental design of these studies meant that disciplinary differences and academic status of the user were not taken into account.

Work undertaken by Brophy et al. (2003) examined the literature on user information needs by subject discipline and by status (lecturer, researcher and student) and conducted some analysis of the raw data made available by the study undertaken by the Digital Research Library Foundation (Friedlander 2000). This work found differences in the information needs and information type use related to different faculties and academic status. Similarly, Leckie et.al. (1996) found out from a study on the information needs of

engineers that the written sources that engineers consulted consist mainly of textbooks, technical reports, catalogues and trade journals rather than scholarly journals, books and conference papers.

Work undertaken by Brophy et al. (2003) recommends that, further study needs to be taken to examine this in greater detail and in the light of networked information services.

## **2.7 The Library-Faculty Connection**

The library-faculty connection or faculty-librarian collaboration is very crucial in ensuring that faculty has a stake on input in developing a university library's collections. This is because the primary function of an academic library is to serve as an information resource centre for the entire academic community. According to Suresh et al.( 1995),in order to provide better service to academic patrons, liaison programmes have been established in some universities. Unfortunately, however, very little has been written on liaison activities or the role of subject librarians/specialists in academic libraries. The study by Suresh et al. focuses on how to implement successful liaison programme in order to facilitate library collection building and improve communication with the academic units. The study defines the concept of liaison librarians and library representatives in academic units and provides suggestions for setting up such a programme.

## **2.8 Availability and Use of Electronic Resources and the Information-Seeking Behaviour on the Ghanaian Scene**

On the Ghanaian scene, Badu (1991), Fiankor (1998), Jiagge (1999), Ofosu-Tenkorang (2001) and Folitse (2002), among others, have written on the information seeking behaviour of various groups.

Badu (1991) conducted a survey on the information-seeking habits of graduate students in the University of Ghana. The object of the study was to throw light on the methods graduate students use in gathering information. The study was intended to find out the effect of the user education programme of the Balme Library of the University of Ghana on the information seeking habits of students and to find out how well these students used the existing library resources.

The study revealed, among others, that bibliographic awareness of graduate students who took part in the survey was very, very low. Also, the students did not have homogenous information seeking habits; their methods of seeking information varied. It also came to light that, students in the sciences depended more on private collections and bought more literature by themselves.

Badu suggested that, for the Library's user education programme to be successful, it must be integrated with the official university curriculum; and that the use of teaching machines and computer-assisted instruction would surely make a very significant impact on the course.

Fiankor (1998) wrote on the Information-seeking Behaviour and Information Use by Graduate Students of the Department of Library and Archival Studies (DLAS) of University of Ghana. The objective of this study was to identify the information-seeking behaviour of and information use by the target group. The findings of the study revealed among other things, that the information-seeking behaviour of and information use by graduate students of DLAS was greatly determined by the graduates' curricula needs which resulted from study tasks (class assignments, end-of-term essays, mini projects and practicals) given by the lecturers in the various subject areas. To satisfy these information needs, the students sought information in their immediate environment beginning with the Departmental Library; libraries of their lecturers; the main University Library (Balme Library) and other libraries outside the university environment.

The main finding was that, lecturers had an influence on the information-seeking behaviour and information use of graduate students. It was recommended that lecturers should continue to maintain their influence on academic work of graduate students by giving class assignments, mini-projects, class tests and examinations and supervision of research work.

Jiagge (1999) wrote on Information Needs Assessment of the Staff at the Water Research Institute (WRI) of the Council for Scientific and Industrial Research (CSIR), Accra. The main aim of the study was to determine the information needs of the staff of WRI. The study revealed that as far as research by the WRI staff was concerned, the most important

reason for seeking information was to keep up-to-date in their disciplines. It was also established that research officers, technical and non-technical staff needed textbooks in subject areas of their current interest to support their research activities. The study recommended that the library should be upgraded to meet the needs of all categories of staff.

Ofosu-Tenkorang K, (2001) undertook a study titled *Investigation into the Information Needs and Information-Seeking Behaviour of Members of the Legal Profession in Ghana*. The main purpose of the study was to investigate the information needs and information-seeking behaviour of members of the legal profession and to determine the nature, volume and adequacy of legal information available for use by the legal community. It was also to ascertain whether the traditional services provided by the law libraries were enough and adequate to satisfy these patrons.

The study revealed, among others, that legal professionals relied heavily on the printed media for much of their information needs. The study also found that the information needs of legal professionals and their attitude to information were greatly influenced by the kind of work they did and further by the experience at the Bench or the Bar. The study also revealed that the most important methods which members of the legal profession used to access information in the law library were by asking the library staff and browsing along the bookshelves.

Folitse (2002) also conducted a study on the Information-Seeking Habits of Students of University College of Education, Winneba. The aim of the study was to find out the information-seeking habits of students of University College of Education, Winneba. This study also sought to find out, among others, if students were aware of the library and other information services, the methods used to access information in the library and the problems students encountered in doing so.

The study revealed that the library services and resources were grossly inadequate. As a result of this, the students were unable to make maximum use of the library to meet their information needs.

Markwei, (2001) conducted a study on the Awareness and Use of the Internet by the Academic staff and students of the University of Ghana. The main aim of the study was to find out whether staff and students were taking adequate advantage of the valuable information resources on the Internet in their academic endeavours and if not, why they did not exploit them to the extent they should.

The study revealed that majority of academic staff and students of the University of Ghana were highly aware of the Internet and that both staff and students perceived the Internet as very useful, especially in the provision of information in their subject areas. The study further revealed that, e-mail was the most used service of the Internet. Slow data transmission and information overload were among the limitations of the Internet as identified by the study.

Among the recommendations made by Markwei (2002) were that, well-advertised training sessions on the use of the Internet should be organized for both staff and students by the University; administrators in charge of Internet access in the University must endeavour to provide uninterrupted Internet service by employing qualified technical staff to maintain the Internet server.

Adika, (2003) undertook a survey research on Internet use among faculty members of Universities in Ghana. The main objective of the research was to investigate the impact the Internet was having on the use of up-to-date information by university faculty, and also provide basic information on issues such as the level of Internet use and access to the Internet among faculty. The study found out that, in spite of the numerous benefits that the Internet offers, Internet use in Ghana was still very low among university faculty. The study showed that Internet use was likely to increase when users had access and received training.

Adika recommended that immediate steps be taken to provide general access points for faculty through computer laboratories with full Internet connectivity on the campuses. The researcher also urged the University's authorities, including Faculty Boards and Heads of Department to, as a matter of urgency to adopt measures for creating Internet awareness among their faculty. The focus of these measures, according to the recommendation, should be on what the Internet is, the services available through the Internet, and basic skills required in using the Internet.

The study further recommended that, there should be a way of constantly up-grading the skills of Faculty and ensuring continued access to the Internet because this would help increase the level of awareness and use of this valuable information resources. The benefits in obtaining relevant and up-to-date information from the Internet by faculty to perform their duties, the study concluded, would reflect in increased productivity in the universities by faculty members which would result in improved curriculum and course content, enhanced research and the generation of more published material with relevant, high quality information on Ghana.

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## **CHAPTER THREE**

### **3.0 METHODOLOGY**

#### **3.1 Introduction**

This section describes and justifies the methodology chosen and the techniques used for this study. It begins with the research design and an explanation of survey research. The sampling techniques and population description are explained. The data collection instruments used are also explained and their benefits highlighted.

#### **3.2 Research Design**

Research design provides the glue that holds the research project together. Research design decides the fate of the study and its outcome. If the design is defective, the whole outcome and report will be faulty and undependable. The purpose of the research design is to provide answers to the research question(s) and to control variance (Raj, 2000).

Considering the fact that the study is concerned with information requirements and information behaviour patterns of academics, it was considered prudent to employ research techniques that would better elicit the needed information from the respondents. To achieve this, the survey method was used, comprising self administered questions made up of both open-ended and closed ended questions which were designed and distributed to both the academic staff and the professional librarians at the Balme Library. Open-ended questions were posed because the researcher concedes that the respondents might provide useful answers which might not be captured by the close-ended questions.

### 3.2.1 Survey Research

To help answer the research questions of this study, a survey methodology was used. Survey research is one of the most important areas of measurement in applied social research. The broad area of survey research encompasses any measurement procedures that involve asking questions of respondents.

Survey research is an attempt to obtain data from members of a population (or a sample) to determine the current status of that population with respect to one or more variables. According to Frankel and Wallen (2000), survey research is a type of research which obtains data to determine specific characteristics of a group. They further state that, survey research has the difficulties of:

- a) Ensuring that the questions to be answered are clear and not misleading; and
- b) Getting a sufficient number of questionnaires completed and returned so that a meaningful analysis can be done.

Survey design is a research technique by which information requirements are specified, a population is identified, a sample selected and systematically questioned and the results analysed, generalized to the population and reports to meet the information needs (Alreck & Settle, 2004).

The **strengths** of the Survey Method in respect to this study were as follows:

1. The Survey Method was relatively inexpensive because it was a self-administered survey. The questionnaires were useful in describing the characteristics of a large

population, and they could be administered from remote locations using electronic-mail, snail-mail or the telephone.

2. Consequently, very large samples were feasible, making the results statistically significant even when analyzing multiple variables.

3. Many questions were asked about a given topic, giving considerable flexibility to the analysis. There was also flexibility at the creation phase in deciding how the questions would be administered.

4. Standardized questions made measurements more precise by enforcing uniform definitions upon the participants. Further, standardization ensured that similar data was collected from groups, and then interpreted comparatively (between groups of study), and

5. Finally, high reliability was easy to obtain; by presenting all subjects with standardized stimulus, observed subjectivity is greatly eliminated.

Some of the **weaknesses** of the Survey Method were that:

1. A methodology which relied on standardization forced the researcher to develop questions general enough to be minimally appropriate to many respondents.
2. The method was inflexible in that, it required the initial study design (the tool and administration of that tool) to remain unchanged throughout the data collection.
3. The method pushed the researcher to ensure that a large number of the selected sample replied. It might be hard for participants to recall information or to tell the truth about controversial questions.
4. Furthermore, as opposed to direct observation, survey research (excluding some interview approaches) could seldom deal with “context”.

Bearing the strengths and weaknesses of the survey method in mind, the present study used questionnaires to collect data. The study also depended on a population universe for its sample. The population included:

- a. All academic staff from the Faculties of Arts, Social Science and Science.
- b. All professional and para-professional staff of the Balme Library.

### **3.2.2 Selection of Subjects**

According to Busha and Harter (1980) the concept of population is fundamental to survey research. A population is any set of persons or objects that possess one common characteristic. This definition applies to the academic staff of the University of Ghana. Until recently, anybody in the University System with at least a Masters Degree who was involved in teaching and research was considered to be academic staff.

Professional and para-professional staff of the Balme Library also constitute part of the, study population. The professional staff are those who have at least a Graduate Diploma or a Master's Degree in Library/Information Studies. The para-professional staff on the other hand, are those who have a Diploma or a Bachelor's Degree in Library Studies or Information Studies.

The population of the study included all the academic staff at post in the Faculties of Arts, Social Studies and Science during the 2005/2006 Academic Year. The population was extracted from the University of Ghana Staff List 2005. This means that all academic staff on Study Leave, Sabbatical Leave and Leave of Absence were excluded.

The total population of the selected Faculties was four hundred (400). The breakdown is shown in Table 1 below:

**Table 1: Selection of Population**

<b>Faculty</b>	<b>No. of Academic Staff</b>
Faculty of Arts	120
Faculty of Social Studies	180
Faculty of Science	100
Total	400

Given that the staff of the Balme Library are supposed to render services to meet the information needs of the academic staff, among others, all the para-professional and the professional librarians in the Balme Library were also served questionnaires. The questions concerned whether or not the Library staff were aware of the information needs of faculty, and their roles in meeting those needs.

This is so because according to Devadason and Lingham (1997), a very peculiar situation is faced perhaps only by library and information professionals. They cannot prescribe the needed information to their clientele in the way the other professionals like physicians, lawyers, architects and engineers prescribe, where such prescriptions have a final say and authority, and which are gladly accepted by the clients. Such prescriptions are authoritative mainly because the clients of physicians and other professionals are

seeking advice in a field which they themselves are ignorant of. Conversely, whereas the clients of information professionals are mostly specialists in the areas they seek information and professional advice.

This is also the reason for the difficulties experienced by information professionals in distinguishing the wishes or desires from the actual needs of the clients. Hence the information professional has to prepare himself or herself so as to create confidence in the users about his/her professional capabilities.

It must be noted here that, the first task in selecting a sample is to define the population of interest. In what group is the researcher interested? To whom does he or she want the result of the study to apply? The population, in other words, is the group to whom the researcher would like to generalize the results of the study. Frankel and Wallen (2000) note that unfortunately, the actual population called the target population to which a researcher would really like to generalize is safely available. The population to which a researcher is able to generalize, therefore, is the accessible population. The former is the researcher's ideal choice; the latter, his or her realistic choice. A population can thus be defined as the group to which the results of the study are intended to apply whereas a sample is a group in a researcher's study from which information is obtained.

### **3.2.3 Sampling Design**

It has been noted that, how well a sample represents a population depends on the sample frame, the sample size and specific design of selection procedures. This is because there are occasions when the goal of information gathering is not to generate statistics about a population but to describe a set of people in a more general way. A major development in the process of making surveys useful is learning how to sample. That is, to select a small subset of a population representative of the whole population. The key to good sampling as identified by Fowler (2002) is finding a way to give all (or nearly all) population members the same or known chance of being selected and to use probability methods for choosing the sample.

Also, Best and Khan (1989) have observed that the primary aim of research is to discover principles that have universal application. However, to study a whole population to arrive at generalizations would be impracticable, if not improbable. The process of sampling fortunately makes it possible to draw differences or make generalizations on the basis of careful observations of variables within a relatively small population selected for observation and analysis.

Dealing with a heterogeneous population warrants that each subgroup within the population is sufficiently and adequately represented to reflect the true nature of the population. Stratification is a means to ensure the representation of specified subgroups within the overall sample (Sjoberg and Nett, 1968).

The Sampling Design selected for the study was, therefore, proportionate stratified sampling. This is the process by which certain sub groups or strata are selected from the sample in the same proportion, as they exist in the population (Frankel and Wallen 2002). The use of stratification as observed by Alreck and Settle (1985) dramatically increases the reliability and confidence obtainable from survey data.

According to Frankfort-Nachmias and Nachmias (1996), to estimate the adequate size of the sample properly, researchers need to determine what level of accuracy is expected of their estimates, that is, how large a standard error is acceptable. This is because there are several misconceptions about the necessary size of a sample. One is, the sample size must be a certain proportion (often set at 5 per cent) of the population and another is that any increase in the sample size will increase the precision of the sample result. On the other hand, Alreck and Settle (1985), indicate that, the sample size of 10% of a population is enough to obtain adequate confidence. They observe that if the samples are to be divided into sub samples and analyzed separately, then the total sample size must be large enough to ensure adequate numbers within them. In this study, a sample size of 30% of the total population of the selected faculties was used.

The following procedure was followed to obtain the stratification of the chosen sample.

**Table 2: Stratification Sample**

<b>Faculty</b>	<b>Population</b>	<b>Sample Size</b>	<b>Percentage</b>
Faculty of Arts	120	36	30
Faculty of Science	100	30	30
Faculty of Social Studies	180	54	30
Total	400	120	-

Considering the fact that the various Faculties of the University of Ghana are made up of Departments, Schools and Institutes, the sample frame was carefully chosen. As shown in Table 2 above, proportional stratified sampling method was used in arriving at the actual sample used. Thirty percent (30%) of respondents were chosen from each Faculty. This is because, according to Powell (2004), in drawing a proportional stratified sample, one would draw the same percentage from each stratum.

The purposive sampling method was however, used as the sampling technique to select the sample size for the professional and para-professional staff of the Balme Library. As has been stated earlier on in this chapter, the professional staff are those who have at least a Graduate Diploma or a Masters Degree in Library Studies. Para-professionals are those who possess a Diploma or a Bachelor's Degree in Library/Information Studies or Information Studies at post during the 2005/2006 Academic year. There were sixteen (16) professional librarians, and seventeen (17) para-professionals in all. To Bailey (1994), the advantage of purposive sampling is that the researcher can use his or her skill

and prior knowledge to choose respondents. By using this technique, this study sampled all professional and para-professional staff of the Balme library.

### **3.2.4 Instrument for and mode of data collection**

The most common types of instrument used in survey research are the questionnaire and interview schedules. Both instruments are virtually identical except that, the questionnaire is usually self-administered by the respondent, and the interview schedule is administered verbally by the researcher (or trained assistants) (Frankel and Wallen, 2002). For the purpose of this study, the questionnaire was used as data collection instrument.

A questionnaire is a structured schedule of questions which are either self-completed by the respondent or completed by an interviewer who reads out the questions and records the responses. Again, a questionnaire is a list of questions which are prepared beforehand. Respondents can answer these questions either in their own words, or by choosing from set of responses that are prepared beforehand. The researcher can ask respondents to fill in the questionnaire, or can read out the questions to them and fill in the questionnaire themselves (Rugg and Petre, 2007).

According to Martyn and Lancaster (1981), the ideal questionnaire is brief, attractive, asks unambiguous questions, is interesting and easy to complete. It should be analysed with little effort and interpreted without difficulty, to provide clear and concise information on which to base decisions and is exceedingly rare.

The questionnaire was designed by this researcher and administered to the respondents. Its purpose was to collect, among others, data on the information needs and information-seeking habits of the academic staff; manual and electronic resources available in the Balme Library; problems encountered during information search and measures that would ensure effective use of available resources in the Library by academics.

### **3.2.5 Strengths and Weaknesses of the Questionnaire Method Strengths**

A self-completed questionnaire by the respondents was used as a means of data collection because of the following advantages among others:

1. Questionnaires could be administered to a large number of respondents at the same time and this makes data collection less time consuming.
2. They make it easier for respondents to express themselves more freely, and questionnaires are also cheaper instruments than interviews.
3. Questionnaires also can be completed by respondents at their own leisure within the time required by the researcher, and objective data can be collected through this method.
4. Questionnaires again allow greater economy of effort (that is, a single instrument duplicated and distributed to numerous respondents can produce a large amount of data).

#### **Weaknesses**

Despite the strengths of the use questionnaires as enumerated above, they have the following:

1. Low response rate if questionnaires are not returned.
2. If a respondent records his/her responses in a baffling manner on a questionnaire, very little or nothing can be done to clarify them.
3. Difficulty in obtaining responses from a representative cross-section of the target population. This is because some respondents may totally refuse, decline or omit to answer the questions since the researcher is not there to urge him on.
4. Most questionnaires cannot be designed to unravel cause or reasons for respondents' attitudes, beliefs or actions.

The questionnaire for the academic staff was divided into three major sections containing a total of nineteen (19) questions. These included biodata, awareness of information sources provided and services rendered by the library, information needs and information seeking behaviour, information sources sought in the Balme Library and elsewhere (both electronic and traditional), problems encountered during information seeking and measures to enhance the use of available resources. The researcher administered the questionnaires to the academic staff in their offices.

The questionnaire for the library staff comprised nine (9) questions including biographical information, level of awareness of information needs of academics and suggestion of ways by which the Library can make its resources known to the academic staff.

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## CHAPTER FOUR

### 4.0 DATA ANALYSIS AND PRESENTATION

#### 4.1 Introduction

This chapter presents the results of the survey which seeks to find out the information requirements and information behaviour patterns among academics at the University of Ghana, Legon. The first part of the analysis treats the responses from the academic staff and the second half looks at the responses from the library staff.

The Statistical Package for the Social Sciences (SPSS) software was used in analyzing the data that was collected. This is because the SPSS is designed especially for the analysis of social science data and contains most of the routines social scientists employ (Felbinger and Schwelgien's *Introduction to SPSS*, as quoted in Frankfort-Nachmias and Nachmias, 1996). In particular, social scientists value the program's capacity to handle with ease the recurring needs of data analysis. For example, SPSS enables the researcher to recode variables; to deal with missing values; to sample, weight, and select cases; and to compute new variables and effect permanent or temporary transformations.

The responses were coded before they were analyzed. A value was given for each response and consistency was maintained throughout the coding by maintaining the values for each response. Descriptive statistics such as frequencies and percentages were used to present the results of the analysis. Tables were used to present the results of the analysis. Analysis and critical evaluation of the data collected helped immensely to draw

an overall picture of patterns of information seeking by the various faculties of University of Ghana.

## **4.2 THE ACADEMIC STAFF**

### **4.2.1 Introduction**

The successful operation of any library depends, to a large extent, on the library collections. The collection should meet the needs and requirements of the end users. Consequently, librarians must know how the academic staff seek information. A total of one hundred and twenty (120) questionnaires were administered to the academic staff to elicit information from them concerning their information requirements and information behaviour. One hundred and twelve (112) or 93% questionnaires were retrieved.

Data obtained from the study were analysed using the Statistics Package for the Social Sciences (SPSS), as this was useful for creating frequency tables for each of the variables. The open-ended questions were analysed using content analysis. The results have been presented under the following subheadings: biographical information, level of awareness of services and resources; and use of resources and services and information seeking.

### **4.2.2 Biographical Information.**

The academic staff under study comprised the Faculty of Arts 34 (30.4%), Faculty of Science 28 (25.0%) and Faculty of Social Studies 50 (44.6%). They were made up of eighty-eight 88 (78.6 %) males and twenty-four 24 (21%) females of the sample. Overall

responses came from all academic ranks. The largest number of responses, 46 (41.1%), was from the Lecturer rank followed by the Senior Lecturer category with 36 (32.1%) responses; followed by the Associate Professors with 11 (9.8%); Professors with 8 (7.1%); Others 6 (5.4%) and finally, Assistant Lecturers with 5 (4.5%).

#### 4.2.3 Level of Awareness of Services and Resources

In a response to the question “Are you aware of the various services and information resources that the Balme Library has?” Seventy-eight (78) or 69.6% respondents answered “Yes”. Twenty-eight (28) or 25% of the respondents said “No”; and six (6) or 5.4% said “don’t know”. As a follow up to the above question, respondents were then asked to select from a list of library resources that they were aware of. The result is shown in Table 3 below:

**Table 3: Level of Awareness of the Library’s Resources by Academic Staff**

Resources	Frequency No. of Response		
	Yes	Percentage (%)	No
Textbooks	79	70.5	33
Journals	75	67.0	37
Theses	73	65.2	39
Online Academic Databases	70	62.5	42
Card Catalogues	59	52.7	53
DATAD	53	47.3	59
Abstracts	49	43.8	63
Indexes	48	42.9	64

The results in Table 3 show that, the resources that respondents were aware of most in the Balme Library in a ranking order included textbooks 70.5%; journals 67%; theses 65.2%; online academic databases 62.5% and card catalogues 52.7%. Among the least known resources were DATAD (47.3%); abstracts 44% and published indexes 43%.

**Table 4: Level of Awareness of the Services by Academic Staff**

Services	Frequency No. of Response		
	Yes	Percentage (%)	No
Library Orientation	74	66.0	38
Photocopying	72	64.3	40
User Education to train users on how to access databases	37	33.0	73
Printing	34	30.4	78
Selective Dissemination of Information	14	12.5	68
Profiles	10	8.9	102
Prep. of Brief Bib.	6	5.4	106

The results in Table 4 provide responses given by respondents on their level of awareness of the various services rendered by the Balme Library. Library Orientation and Photocopying services were the most well known amongst the list, with 66% and 64.3% respectively.

**Table 5: How Respondents get to know about the Library’s Resources and Services?**

How do you get to know of Library’s Resources and Services?	Frequency No. of Response		
	Yes	Percentage	No
By chance	59	52.6	77
From Library Staff	35	31.3	53
Through Newsletters	12	10.7	100
Other	14	12.5	98

The following responses were given by respondents to the questions how they got to know of the services and resources of the Balme Library. These questions also allowed the respondents to tick more than one answer as might apply in their case. Majority of the respondents 59 or 52.6% got to know of the Library’s resources and services “by chance” whereas 35 or 31.3% got to know from the Library staff. Twelve 12 or 10.7% respondents however said they got to know of the Library’s resources and services through Newsletters.

#### **4.2.4 Use of Services and Resources**

The study sought to know which of the services and resources provided by the Library that are used by the respondents. The responses given indicate that there is minimal use of these services and resources. For example, only eight (8) or 7.1% respondents said they use the “photocopying” services of the Library. Another (8) or 7.1% respondents took part in the “user education to train users on how to access databases” in the Library.

Concerning the use of resources, seventeen (17) or 15.2% respondents use textbooks; thirteen (13) or 11.6% used journals; ten (10) or 9% used online academic databases; nine (9) used card catalogues and eight (8) or 7.1% used theses. Also, seven (7) or 6.3% respondents used abstracts; six (6) or 5.4% used published indexes whilst only five (5) or 4.5% accessed DATAD.

It is evident from the responses above that the academic staff do not make extensive use of the services and resources of The Balme Library.

#### **4.2.5 Level of Use of the Balme Library**

In response to the question as to whether or not the respondents use the Balme Library as often as they would wish, fifteen (15) or 13.4% respondents said “Yes”. Ninety (90) or 80.4% respondents said “No” whilst seven (7) or 6.3% of the respondents said “don’t know”. The reasons given by respondents for their non-use of The Library are shown in Table 6 below.

**Table 6: Non-use of the Library**

Reasons for non-use of the Library	Frequency No. of Response		
	Yes	Percentage (%)	No
Rely on personal collections	75	67.0	37
Materials available are not relevant to my work	44	39.3	68
Inconvenient at opening hours	23	20.5	89
Inadequate access skills	16	14.3	96
Library staff unhelpful	8	7.1	104

Table 6 shows that majority of the respondents, seventy-five (75) or 67% said they relied on their personal collections. Forty-four (44) or 39.3% respondents said the materials available are not relevant to their work. Whereas twenty-three (23) or 20.5% of the respondents indicated that they did not use the Library because of inconvenient opening hours, sixteen (16) or 14.3% said their non-use of the facility is due to their lack of adequate access skills. Finally, eight (8) or 7.1% of the respondents said they do not use the Library because the Library staff are unhelpful.

Respondents were asked to suggest ways to improve the Library's resources and services by selecting from a list of possible measures to adopt. The results are shown in Table 7 below:

**Table 7: Ways to Improve Library Resources and Services**

Views	Frequency No. of Response		
	Yes	Percentage (%)	No
Provide training for academic staff on how to access academic databases	102	91	10
Library should regularly inform academic staff about its resources	102	91	10
Involve academic staff in building the Library's collections	97	86.6	15
Others	27	24.1	85

Respondents were asked to select more than one view in their bid to suggest ways to improve the Library's resources and services. One hundred and two (102) or 91% respondents suggested the provision of training for academic staff on how to access the academic databases and also that the Library should regularly inform academic staff about the resources of the Library respectively. A further ninety-seven (97) or 87% of the respondents suggested the involvement of the academic staff in building the Library's collections.

#### **4.2.6 Information Seeking Behaviour**

Information-seeking behaviour is the complex patterns of actions and interactions which people engage in when they look for information of whatever kind and for whatever purpose. Participants were asked to select from a list their various reasons for information seeking. The responses are shown in Table 8.

**Table 8: Reasons for Seeking Information**

Why do you seek information in the Library	Frequency No. of Response		
	Yes	Percentage (%)	No
For research work	101	90.2	11
To update knowledge	100	89.3	12
To provide up-to-date reference on courses to students	90	80.4	22
To prepare lecture notes	89	79.4	23
For Career Development (Publish or perish)	87	77.7	25
To guide researchers/ students	86	76.8	26
To write a research paper	85	75.9	27
To confirm and or refute an issue (quick reference)	72	64.3	40
To satisfy personal ego or raise my image	9	8.0	103
Others	3	27	103

It is evident from the Table 8 that, indeed the academic staff have varied reasons for seeking information. One hundred and one (101) or 90.2% respondents said they seek information to aid their research work; one hundred (100) or 89.3% respondents said they look for information to up-date knowledge; ninety (90) or 80.4% respondents look for information in order to provide up-to-date references on courses to their students. Whilst eighty-seven (87) or 78% respondents looked for information for career development;

eighty-six (86) or 77% said they do so to guide students or researchers. Seventy-two (72) or 64.3% respondents seek information in order to confirm or refute an issue.

Concerning the sources/services of information that the academic staff generally used when seeking information, the following responses presented in Table 9 were given.

**Table 9: General Information Sources Used**

Sources/service of information generally need	Frequency No. of Response		
	Yes	Percentage (%)	No
Journal Articles	103	92.0	9
Textbooks	103	92.0	9
The Internet	88	78.6	24
Conference Proceedings	85	75.9	27
Electronic Databases	81	72.3	31
Reprints	33	29.5	79
Handbooks	75	70.0	37
Network with colleagues (private contacts)	68	60.7	44
Indexes & bibliographies	66	58.9	46
Abstracts	65	58.0	47
Card Catalogues	52	46.4	60
Book Reviews	50	44.6	62
Audiovisual Media	39	34.8	73
Selective Dissemination of Information Services	24	21.4	88
Discussion with Librarian	17	15.2	95
Current Awareness Service	12	10.7	100
Discussion Group of which you are a member	12	10.7	100
Others	4	3.6	106

Results illustrated in Table 9 depict the various sources and services that respondents generally used in their search for information in a ranking order. Journal articles and textbooks were the most widely used sources with one hundred and three (103) or 92% respondents respectively. This is followed by eighty-eight (88) or 78.6% who use of the Internet; then Conference Proceedings 85 or (75.9%); electronic databases by 81 or 72.3%; network with colleagues through private correspondence, 68 or 60.7 % and many other sources.

As a follow up on the question of the general source/services used by the academic staff in their search for information, the researcher sought to find out where the respondents normally got the information sources/services. The question also asked the respondents to select more than one response as may apply from a list that was provided. The responses are shown in the Table 10.

**Table 10: Where Information Sources are Obtained.**

Where do you normally get the information sources?	Frequency No. of Response		
	Yes	Percentage (%)	No
Personal Library	104	92.9	8
Departmental/School/Institution Library	95	84.8	17
Colleagues	93	83.0	19
The Balme Library	49	43.8	63
Others	21	18.8	91

It is evident from the result that majority of the respondents, totaling 104 or 92.9% use their personal libraries; ninety-five (95) or 85% use their Departmental/School/Institution libraries, whilst 93 or 83% said they contact their colleagues. Only 49 or 43.8% respondents said they use the Balme Library when they are looking for information.

Respondents were asked to indicate the types of materials they looked for in the Balme Library. Their responses are shown in Table 11.

**Table 11: Type of material sought in Balme Library**

What type of material do you look for in the Balme Library	Frequency No. of Response		
	Yes	Percentage (%)	No
Textbooks	97	86.6	15
Journals	63	56.3	49
Theses	56	50.0	56
Reference Materials	43	38.4	69
Government Publications	34	30.4	78
Research Reports	29	26.0	83
Newspapers	11	10.0	101
Others	5	4.5	107

Textbooks appear to be the most sought after material in the Balme Library by the respondents with the frequency of ninety- seven (97) or 87%. This is followed by journals with 63 or 56.3% respondents; Fifty-six (56) or 50% said they used theses and 43 or 38.4% used reference materials.

The researcher also wanted to find out if the respondents had any problems while looking for information in the Balme Library; the responses are shown in Table 12.

**Table 12: Problems encountered in The Balme Library**

What are the problems (if any) you encounter while looking for information in the Balme Library	Frequency No. of Response		
	Yes	Percentage (%)	No
Materials out of date	87	77.7	25
Materials not available	83	74.1	29
Inconvenient reading space	61	54.5	51
Others	20	17.9	92
Lack of knowledge in the use of the Library	16	14.3	96
Library staff not willing to help	3	2.7	109

Outdated materials and unavailability of materials topped the list of problems encountered by respondents in their bid to seek information in the Balme Library. They respectively polled 87 or (78%) and 83 or (74%) respondents. Inconvenient reading space was also considered as a problem by 61 or (51%) respondents.

Finally, respondents were asked to suggest measures to be put in place to ensure effective use of the information resources and services of the Library. Here again, respondents were asked to select more than one answer which was applicable to them. The results are shown in Table 13.



**Table 13: Suggest Measures to Ensure Effective Use of the Library**

Please suggest measures that could be put in place to ensure effective use of the information resources or services in the Library	Frequency No. of Response		
	Yes	Percentage (%)	No
Establish subject librarians at faculty level to serve as links between Faculty & Library	98	87.5	14
Library should be proactive	90	80.4	22
Create reading area for academic staff	87	77.7	25
Others	29	25.9	83
Presentation at official University Gathering (e.g. Faculty Board Meeting/Convocation)	22	19.6	90

As shown in Table 13, ninety-eight (98) or 86% of respondents would like the Library to establish subject librarians at the Faculty level to serve as links between the academic staff and the Library. Whereas ninety (90) or 80.4% also advocate that the Library be proactive, eighty-seven (87) or 78% respondents would like the Library to create reading area(s) for their academic staff. Other measures suggested by respondents to ensure effective use of the Library include online renewal of borrowed books, and, employment of service-oriented staff. Others were “The Library should inform academic staff on current services”, “The Library should acquire audio-visual materials in support of teaching and learning” “The Library should develop a website as a way of marketing

herself”, and “The Library should organize seminars and workshops for the academic staff on services and resources and how to use them.

### **4.3 THE LIBRARY STAFF**

#### **4.3.1 Background information of respondents**

A questionnaire, made up of a set of nine questions, was administered to the thirty-four (34) professional and para-professional librarians at post to find out whether or not the Balme Library staff are aware of the information needs of academics.

There were sixteen (16) professional librarians at post with various degrees in Library Studies including one (1) Doctor of Philosophy (PhD.), seven (7) Master of Philosophy (MPhil.), five (5) Master of Arts (MA.), and two (2) Postgraduate Diploma degrees. There were also five (5) Bachelor of Arts (BA) degree holders and twelve (12) paraprofessionals with Diploma in Library Studies involved in the study. All the categories of staff had been working in the Library for between five and twenty years. The background information on the respondents was important to the study because it gave one the assurance that all respondents had the basic librarianship qualification which should enable them to effectively help their users. All the questionnaires administered to this category of respondents were retrieved. This made the response rate one hundred per cent.

#### **4.3.2 Awareness of Information needs of Academic Staff**

All the respondents in the study responded to the question “do you know that the academic staff have information needs?” in the affirmative. As a follow up to the

question “if yes, are you aware of what the information needs of the academic staff are?” Twenty-six (26) or 76.5% respondents affirmed that they were aware of the information needs of the academic staff. Three (3) or 9% respondents stated that they were not aware of the information needs of the academic staff, whilst five (5) or 14.7 % respondents said they did not know the information needs of the academic staff.

A further question “how do you know of the information needs of the academic staff?” was posed, and the response is shown in a ranking order in Table 14 below.

**Table 14: Library Staff Knowledge of Information needs of Academic Staff**

Response	Frequency	Percentage
Academic staff come to the library with needs	27	79.4
Library in constant link with academic staff through department/faculty officer	3	8.8
Unofficially	3	8.8
Other	1	2.9

Twenty-seven (27) or 79.4% respondents said that the academic staff come to the Balme Library with their needs, whereas three (3) respondents (about 9%) said the Library is in constant link with academic staff through Department or faculty officers. Another three (3) respondents (about 9%) said they know of the information needs of academics by “unofficial” means.

When the information professionals in the Balme Library were asked how they made their resources and services known to the academic staff, they gave the following responses in a ranking order as shown in Table 15 below:

**Table 15: How Library Professionals make Resources and Services**

**Known**

Response	Frequency	Percentage
Talk with academic staff unofficially about the library's resources	27	79.4
Do nothing to make resources known	2	5.9
Through Newsletters & Occasional releases	2	5.9
Presentation at University gatherings (eg. Faculty Board Meeting/Convocation)	1	2.9
Departmental presentations	1	2.9
Others	1	2.9

Table 15 shows that twenty-seven (27) or 79.4% respondents indicated that the academic staff came to the Library with their needs. This means that, the Balme Library does not have any mechanism in place to find out the information needs of the users.

**Table 16: Suggestion on how to make the Balme Library's resources/services known**

<b>Response</b>	<b>Yes</b>	<b>Percentage</b>	<b>No</b>
Circulate list of newly acquired materials	31	91.2	3
Establish subject librarians at faculty level to serve as link between faculty & library	24	70.6	10
Presentations at official University gathering	21	61.8	13
Library should be proactive	20	58.8	14
Other(s)	10	29.4	24

As a means of improving upon the services and resources of the Library, respondents were provided with a list of possible measures to adopt. Table 16 presents the various responses. As in earlier cases respondents were asked to select more than one answer. A total of thirty-one (31) or 91.2% respondents suggested that a list of newly acquired materials be circulated among the academic staff. Another twenty-four (24) or 70% respondent were of the view that the Balme Library should establish subject librarians at the faculty level to serve as links between the various faculties and the Library.

Twenty-one (21) or 61% respondents suggested that the Balme Library should make presentations at official university gatherings like Convocation and Faculty Board Meetings to inform academic staff about the resources and services of the Library, whilst twenty (20) or 58.8% of the respondents would want the Library to be proactive.

The implications of these findings are discussed in the next chapter.

## **CHAPTER FIVE**

### **5.0 DISCUSSION OF FINDINGS**

#### **5.1 Introduction**

The turbulent and changing information environment calls for continual research to ensure that the needs of information users, in this case, academic staff, are satisfactorily met. This requires that information professionals acquire the needed guidance and expertise to cope with the operational management of the information resources as well as plan for the future. To ensure this, there is an urgent need to understand and grasp the complex process of identifying the information needs of the academic staff of the university, which is a very vital link in the chain of operations from information gathering to dissemination.

A very important point to note is that, the effectiveness of an information system such as the Balme Library depends on the extent to which the system's characteristics are in response to the situation of the client and how much the potential user of the system is willing and able to make use of the services provided by the system. A careful identification, analysis and classification of the real information needs of the client is an essential basis for planning, implementation and operation of information systems and services. This formed the basis or rationale for this study, and the findings are discussed below.

## **5.2 DISCUSSION OF THE FINDINGS ON THE ACADEMIC STAFF**

### **5.2.1 Level of Awareness of Resources and Services**

The high response from the study population on the level of awareness of the various services and resources available in the Balme library is very encouraging. The results from the study depict that indeed, majority of the academic staff (78) representing 69.6 per cent of the respondents were aware of the services and resources that the library has. This finding is at variance with Ocholla's (1996) finding that lack of awareness of information services and non-use of current awareness services, among others, contributed to limited access to and use of information resources at the Moi University in Kenya.

In a bid to find out how the academic staff got to know of the services and resources of the Balme Library, the results in Table 5 depict that 59 or 52.7 % respondents got to know of the services and resources by chance, while 35 or 31.5 % respondents said they got to know of the resources and services from the library staff. Knowing of the resources and services by chance could be explained that most of the academic staff were at one point in time students of the University of Ghana and therefore had a vague idea of the holdings of the Balme Library.

### **5.2.2 Use of Resources and Services**

The study reveals that, most of the academic staff do not use the library as often as they would want to, due to the following reasons: reliance on personal collections 75 or 67%; materials available are not relevant to my work 44 or (39.3%); inconvenient opening

hours 23 or 20.5%; inadequate access skills 16 or 14.3% and library staff not helpful 8 or 7.1%. This result is similar to the findings of the University of Iowa Libraries Need Assessment Group (2002), which revealed that faculty and staff underutilized many of the library's resources and services simply because they were not aware of the existence of those services. The result of the present study, however, indicated that as many as 78 or 69.6% respondents are aware of the services and resources that the Balme Library has, yet they make little use of these resources and services. (Further research is suggested to find out why this is so.)

As a means to improve the use of the Library's resources and services 102 or 91% of the respondents suggested training for the academic staff on how to access the academic databases. Another 102 or 91% respondents were of the view that the Library should regularly inform academic staff as to what the Library has in terms of newly acquired materials and other facilities that the users of the Library ought to know about. Also, 97 or 86.6% respondents suggested the involvement of the academic staff in building the Library's collections.

Several other suggestions made by some other respondents included the following:

- a) "The University should make it mandatory for all academic staff to register with the Library";
- b) "That Professors Emeritus should be involved in building the Library collection";
- c) "Library resources be made available online";
- d) "The Library should acquire new journals";

- e) “The Library should have an OPAC”;
- f) “The Library should have orientation sessions for academic staff”;
- g) “The Library building should be expanded”;
- h) “The Library should not require the physical presence of the academic staff in the event of renewal of a book that the person had already come to borrow”;
- i) “The Library should closely monitor books that are given out as loans”;
- j) “The Library should circulate titles and content pages of newly acquired books among lecturers”; and that,
- k) “The Library should update its collections”;

The researcher considers the above points very useful, practical and “doable” suggestions whose implementation will enhance the use of the Balme Library’s resources by its clientele.

### **5.3.3 Information Seeking**

The various reasons given by the academic staff for looking for information include the following:

- a) “For research work”;
- b) “To update knowledge”;
- c) “To provide up-to-date reference on courses to students”;
- d) “To prepare lecture notes”;
- e) “For career development (publish or perish)”;
- f) “ To guide students / researchers”;

- g) “To write a research paper”;
- h) “To confirm or refute an issue (quick reference)”;
- i) “To satisfy personal ego or raise my image”;

Looking for information for research work ranked first on the list, followed by updating knowledge and then provision of up-to-date reference on courses to students and for career development, in that order.

These findings are in line with Ocholla’s (1996) that, academics in the Moi University indicated that they needed information mainly for career development to avoid the “publish or perish syndrome”. Seeking information to boost personal ego or for prestige purposes ranked lowest on the list. This could be attributed to the fact that, in an academic environment, looking for information is geared towards career development rather than prestige. This observation confirms Crawford’s (1978) that, indeed, information needs and subsequent information seeking depend on work activity, discipline, and availability of facilities, among many others.

#### **5.2.4 General Information Sources**

The results in Table 9 indicate the general sources of information used by the academics under study. Journal articles and textbooks rank first. This indicates the importance of these two major sources in order to keep up with one’s subject field. This is followed by the Internet, conference proceedings, electronic databases, handbooks, network with colleagues, indexes and bibliographies, card catalogues and audiovisuals.

The use of the Internet by majority of the respondents 88 or 78.6 % indicates that they are abreast with current trends. This result also corroborates the point made by Markwei (2001) that, indeed, the academic staff and students of the University of Ghana were highly aware of the Internet and that both staff and students perceived the Internet as very useful, especially in the provision of information in their respective subject areas.

It is the hope of this researcher just as Adika (2003) also expressed that, the benefits in obtaining relevant and up-to-date information from the Internet by faculty to perform their duties would reflect in an increased productivity in the University by faculty members. This, it is believed, would result in improved curricula and the course content, enhanced research and the generation of more published material with relevant, high quality information on Ghana. The findings of Mills and Bannister (2001) that, (i) the dramatic increase in use of technology in information-seeking by academics over the past twenty years was a strong influence in motivating and demotivating the use of other sources like the print sources in the library; and also, (ii) that technology played a major role in the building of the image of libraries and librarians; and that (iii) technology was one of the most important factors influencing and shaping information-seeking behaviour of academics support the findings of the present study.

The extensive use of electronic databases by the respondents (81 or 72.3%) indicates that they are abreast with current trends in the use of other formats of information resources than just the hard copy of the document. The availability of the electronic media such as

databases both online and offline, the Internet facility and online access to local databases is likely to have an impact on the information-seeking behaviour of academics at the University of Ghana, Legon. It is hoped that further research will be conducted into whether academics at the University of Ghana, Legon, use the electronic databases online or print them out as hard copies before using them.

### **5.2.5 Use of the Balme Library**

The various places where academics get their needed information as shown in Table 10 include their personal libraries (104 or 92.9%); Departmental libraries (95 or 84.8%); Colleagues (93 or 83.0%) and the Balme Library (49 or 43.8%). The above results demonstrate a low preference for the Balme Library as a source of information for the academic staff at the University of Ghana, Legon.

The university library is expected to occupy a central place in information provision in a university. Simmonds and Andaleeb (2001) consider the academic library as the heart of the learning community, providing a place for faculty members and students to do their research and advance their knowledge. The comparatively low rating of the Balme Library among the places where academics in the University of Ghana community get their information from is not complimentary to the Library as the central focus in the learning environment. This could be attributed to the fact that, though the Library may be providing exactly the information or service requested in a university environment, unless the users perceive that, this information is exactly what they need and that they will

benefit from an interaction with the library, they will most likely not even go to the library.

In addition, the comparatively low rating of the Balme Library among the places where academics in the University of Ghana community get their information could be explained in line with the study based on John Mills' Ph.D. findings titled - Library and librarian image as motivators and demotivators influencing academic staff use of university libraries-. This study reported on motivators and demotivators that influence the information seeking behaviour of academics in the choice to use or not to use the library or certain other sources of information in Charles Stuart University, Wagga Campus, Australia. John Mills identified factors or sources which are external to the user to include colleagues, libraries, personal barriers, databases and librarians. Internal factors which affect the user, among others, are emotions, feelings, attitudes and personalities of users. Finally, John Mills also pointed out that image or mental representations of the library and the librarian as well as technology and time could affect the use of an academic library either positively or adversely.

Identification of feelings, emotions and beliefs as factors which influence information seeking behaviour of academics is very significant because affective response to sources, technology, librarians and libraries influence the creation of motivators and demotivators. The reason for the non-use of the Balme Library as the first resort corroborates the findings of John Mills.

Furthermore, the findings of the present study that academics use their personal library, departmental library, colleagues and finally the Balme Library can be attributed to the fact that it makes sense to consult facilities closer to one first before moving on to other places.

### **5.2.6 Types of Materials Sought in the Balme Library**

Results in Table 11 indicate the type of materials the respondents look for in the Balme Library. Textbooks were the most popular type of information sources sought. This is followed by journals; and then theses. This result is similar to that of Patitungkho and Deshpande (2005) in their study on Information Seeking Behaviour of Faculty Members of Rajabhat Universities in Bangkok. In their study, majority 148 (57%) respondents used textbooks, whereas 40 or 15% respondents use periodicals. This means that textbooks and journals are very important sources in the teaching and learning process. Journals are also important sources to keep up with the developments in one's subject field. Theses also rated high among the information sources sought in the Balme Library. This might be due to the fact that theses tend to be used as the basis of literature reviews in research work and also as a spring board for further studies.

### **5.2.7 Problems Encountered During Information Seeking**

The respondents were asked to mention the problems they faced while seeking information. Table 12 indicates that majority of respondents faced the common problem of outdated materials and unavailability of materials. The findings of Patitungkho and

Deshpande (2005) that 37% of their respondents faced unavailability of information is in contrast with the high 74% of the Balme Library result.

Inconvenient reading space is another problem encountered by 54% of the academic staff. Some of the respondents said that they would like the situation where they can get out of their offices or homes to come and sit in the Library to do research. This is not possible now in the Balme Library due to the large student numbers who compete for the limited reading space available. Other problems faced in the use of the Library by the academic staff include lack of knowledge in the use of the Library and staff unwillingness to help. The researcher believes that, if the Balme Library should systematically analyse staff development needs and job skills required to meet the new challenges that staff encounter in service delivery some of these problems would be minimized if not completely eliminated.

### **5.2.8 Measures to Ensure Effective Use of Library Services and Resources**

The results in Table 13 show the various suggestions put forward by the respondents as measures to ensure effective use of the Balme Library's resources and services. Support of teaching, learning and research programmes are essential if an academic library is to be successful. This can only be achieved if the library resources and services are geared towards the courses of study that are offered at various levels – undergraduate and post graduate- and also faculty research interests.

Establishment of subject librarians at Faculty levels to serve as links between Faculty and the Library had the highest number of respondents 98 (87.5%). This response confirms the findings of Lau (2001), Faber (1999) and Suresh et.al, (1995) that a liaison programme is necessary to ensure the effective use of an academic library. The establishment of a liaison programme involves the university library and academic departmental faculty participating jointly in the collection development process, in order to facilitate the building of a strong collection that fosters better communication between the library and the academic community, and which also enhances the patron-oriented image of the library. It is generally believed that, if the academic staff have a stake in building the library collection, the issues of out-dated and unavailable materials would be minimized. In addition, if improved services and resources encourage the academic staff and their students to use the library, then the latter will be in a better position to justify its request for increases in financial allocation as the result of the study by The University of Iowa Libraries Needs Assessment Group (2002) suggests.

### **5.3 DISCUSSION OF THE FINDINGS ON LIBRARY STAFF**

The study revealed that, all the staff of the Balme Library know that the academic staff have information needs. This, the researcher presumes is due to the fact that, all the information professionals have basic training in library studies. The user is very critical in the practice of librarianship because all library processes revolve around the users. It is, therefore, crucial that the staff of the library always relate with users in a pleasant, friendly, courteous and efficient manner. A library is adjudged to achieve its mandate when users are satisfied with the services and resources offered them (Aina 2004).

### **5.3.1 Promoting Resources and Services**

No matter how comprehensive the resources and services of a library are, it is very important that these services and resources are publicised widely so that users could seek information from there (Aina 2004).

The response to the question as to what the Balme Library staff do as information specialists to make the Library's resources and services known to the academic staff reveals that there is no laid down procedure by the Library makes its resources and services known to the staff. This is indicated in Table 14, where only three (3) or 8.8% respondents stated that the Library is in constant link with academic through Department or Faculty staff.

A study undertaken by Green, Loughridge and Wilson (1996) revealed that, faculty and staff underutilized many of the libraries' (in the United Kingdom) resources and services simply because they were not aware of the existence of those resources. It will, therefore, be prudent for the Balme Library to "market itself" to the academic staff and all other users for its rich resources to be accessed.

It also behoves the Balme Library to seriously consider the establishment of subject librarians at the faculty level. The survey revealed that there were 16 professional librarians at post. If all these professionals could be assigned to the various academic departments to keep prompting the academic staff of developments of the Library, then it would result in a reliable link between the University Library and the faculties where

each other's needs could be channelled to the appropriate destination for prompt attention.

Traditionally, libraries have been in existence to provide information. However, in this age of information revolution and the advent of the Internet, there are inexpensive and easily attainable information and attention-grabbing presentations all over the place just by the click on a button. In the face of all these competing resources, the library can only remain an important and valued resource through marketing itself (Weingand, 1995). The Balme Library should market its resources and services so that the users - academic staff, students and researchers alike - would understand that the library is designed for their particular needs and capabilities. In order to do this, the Balme Library must understand who are its users and what their information needs are by designing a plan to respond to those needs.

From the study, it is evident that the Balme Library, like most other libraries, has not traditionally marketed its products and services because it feels there is a basic human need for information (Johnson, 1995) so users would by all means use the Library. The management of the Balme Library assumes that the academic staff and all other users for that matter will come and use its resources and services without the users being prompted to do so.

### **5.3.2 User Needs Assessment**

Assessing the information needs of the academic staff and all other users by the Balme Library is essential in determining the role and value of the Library. This is because, user studies (of which this study is an example) help in determining the information needs, the information-seeking behaviour and sources of information used in meeting the information needs of users (Aina, 2004). The Balme Library may be providing exactly the information or services requested by users, but unless the latter perceive that the information provided is exactly what they need, and that, they will benefit from an interaction with the Library; the users will most likely not even go to the Library. Understanding the organization and the users will identify what parts of the service or which resources are valued most by a particular individual user category (Gram, 1995).

It must be pointed out that, the best way to understand the needs of library users is to listen to their requests and to get to know them as individuals. If as many as 27 or 79.4% respondents, as shown in Table 15 said that they talk to the academic staff unofficially about the Library resources and the same number of respondents said they know of the information needs of the academic staff who visit the Library, it means that the Balme Library does not have any official mechanism in place to understand the needs of the academic staff.

These responses raise serious issues about the existence and performance of the Balme Library which this study tries to address in the chapter on recommendations. Meanwhile, at a glance, the frequency of responses indicate that “unofficial” means by which the

Library makes its resources and services known to the academic staff does not create a good impression of the Library at all. It could also be that the respondent who made presentations at University gatherings, for example, Faculty Board Meetings is a member of that Board which of course is not an open forum where all the academic staff are present.

It also means that the Balme Library tends to provide the academic staff with the information resources or services that the Library thinks are needed or in convenient format. This means that the perceived needs rather than the real needs of the Library's users are accommodated whereas the opposite should be the case. Recognizing the client as an individual and offering customized service based on information need is crucial – users/clients only care about getting the results they think are most useful and economical for them today. Hence finding out what user priorities and agenda are will get the library attention; promoting the things loved and valued by librarians will not (Powers, 1995).

### **5.3.3 Suggestions on How to Make the Balme Library's Services/Resources Known**

As shown in Table 16, twenty (20) or 58.8% respondents suggested that the Balme Library should be proactive. This response suggests a way of making the Library's services and resources known to the academic staff. This also presupposes that the Balme Library is not proactive enough. Proactive services and bits of direct marketing are ways in which libraries of the present can have a foothold in the future. A combination of the following processes: (i) Circulate list of newly acquired materials; (ii) Establish subject

librarians at faculty level to serve as link between faculty & library; and (iii) Presentations at official University gathering in a ranking order as suggested by respondents would also in a way put the Balme Library in the limelight. What is fascinating about these suggestions are that they are being put forward by the Library Staff themselves. It could mean that, the Library Staff as professionals and para-professionals are not doing what is expected of them because of one reason or the other. (This point also warrants a further research to establish the fact).

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## CHAPTER SIX

### 6.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 6.1 Introduction

There is no doubt that the advent of the information technologies and electronic resources has had both positive and adverse effects on the role of the academic library throughout the world. As has been stated earlier in this study, with the presence of online catalogues, online databases, electronic books and other resources, the overall access to information has changed thereby affecting the role of the academic library and its staff. The availability of these new technologies and electronic resources have raised questions as to whether or not users need a physical library if almost everything can be accessed electronically, and also whether librarians should play a different role from what they have always played.

Answer to these questions could be found in the work of Simmonds and Andaleeb (2001). Their study shows that by providing quality services and satisfaction to users, academic and research librarians can distinguish their services through friendly, helpful and knowledgeable advice and the best technological resources available. This is because academic library users have varying needs and expectations so it is the responsibility of the library staff to know these needs and expectations and strive to meet them. Findings of the current study corroborate this assertion that, majority of the academic staff at the University of Ghana, Legon, prefer the use of books and journals which the Balme Library must strive to provide.

## 6.2 SUMMARY OF FINDINGS

The purpose of the study was to investigate the information requirements and information behaviour patterns of faculty at the University of Ghana, Legon in relation to using the main University Library and the emerging electronic information resources and the challenges that confront these users in the use of the resources and services of the Library. To fulfill the purpose of the study, answers were sought for the following questions:

- a. What are the information needs of the academic staff?
- b. What information sources are available to the academic staff?
- c. To what extent do the information resources available in the Balme Library meet the information needs of the academic staff?
- d. How do the Library's managers determine the information needs of their users?
- e. To what extent does the academic staff use the traditional information sources such as abstracts and indexes and the electronic resources such as the online databases and the Internet?
- f. What problems do the academics encounter in using both the traditional and electronic information resources?
- g. What are the factors that influence the information seeking behaviour of the academic staff?
- h. What measures are in place to ensure effective use of available resources in the library by academics?

Survey methodology was used for their study. Questionnaires made up of open-ended and closed-ended questions were administered to respondents. The subjects of the study were:

1. All the academic staff at post in the Faculties of Arts, Science and Social Studies during 2005/2006 academic year.
2. Professional and para-professional staff of the Balme Library during the 2005/2006 academic year.

Proportionate stratified sampling design was used as the sampling design for the academic staff. There were 400 academic staff at post during the time of the study. The sample size of 30% was selected for each category. One hundred and twenty (120) questionnaires were administered out of which 112 or 93% were completed and returned.

For the library staff, the purposive sampling technique was used to select the sample size. The advantage of the purposive sampling is that the researcher can use his or her skill and prior knowledge to choose respondent. There were 16 professional and 17 para-professional librarians in all. The response rate was a hundred per cent.

Major findings of the study presented below include those on the academic staff and the library staff.

#### **6.2.1 Major findings about the Academic Staff include:**

1. Academic staff are aware of the services and resources of the Library.
2. Most academic staff do not use the library as often as they would want to because

- a. they rely on their personal libraries;
  - b. of inconvenient opening hours and;
  - c. available materials are not relevant to their work.
3. Academic staff seek information for various reasons including:
- a. career development;
  - b. preparation of lecture notes;
  - c. updating knowledge;
  - d. writing a research paper;
  - e. providing up-to-date reference on courses to students;
  - f. quick reference;
  - g. boost personal ego.
4. The general sources of information used by academics at the University of Ghana are the same the world over. These include journal articles, textbooks, the Internet and its resources, conference proceedings, electronic databases (both online and offline), and network with colleagues.
5. Use of the Balme Library is rated very low among a list of places where the academic staff seek information. These places include:
- i) personal libraries,
  - ii) departmental libraries and
  - iii) colleagues.

This is because the academic staff do not perceive the Balme Library as a source that satisfies their information needs.

6. For those who use the Balme Library, the materials most sought after include textbooks, journals and theses.
7. Problems encountered by academics during information seeking include:
  - i) outdated and unavailability of materials;
  - ii) inconvenient and insufficient reading space;
  - iii) lack of knowledge in the use of the Library; and
  - iv) staff not unwillingness to help sometimes.
8. Respondents suggested that measures to ensure effective use of resources and services should include the establishment of Subject Librarians at Faculty level to serve as links between academic staff and the Library.

#### **6.2.2 Major Findings about the Library Staff were that:**

1. All respondents are aware that the academic staff have information needs. This could be due to the fact that all the library staff have basic training in library studies, which enables them to identify the basic needs of users.
2. There is no laid down procedure at the Balme Library for making the Library's services and resources known to the academic staff
3. The Balme Library does not have any official mechanism in place to understand the information needs of the academic staff. This implies that The Library tends to provide the academic staff with the information resources and services that The Library thinks are needed or in convenient format. This suggests that perceived needs are being catered for instead of real needs.
4. The Balme Library is not proactive enough.



### **6.3 CONCLUSION**

The study presented the results of a survey of the information requirements and the information behaviour patterns of academics at the University of Ghana. One of the major findings is that, the academic staff do not make effective use of the resources and the services that the Balme Library provides. In the case of the library staff, the findings show that they are not proactive and that there is the need to market the Library for its resources and services to be better known and used more effectively.

It is a fact that no single research at a go can solve all problems. This study is only an attempt to find out what the information requirements and the information behaviour patterns of academics at the University of Ghana, Legon are. A further research is suggested to find out why majority of the respondents were aware of the services and the resources of the Library yet made insufficient use of these resources and services.

It is believed that, if the recommendations of this study are implemented through the cooperation of the University Administration on the one hand, and the academic staff and the University Library on the other, the information needs of the academic staff would be better met and also the image of the Library in particular, and that of the University in general would be enhanced.

## **6.4 RECOMMENDATIONS**

The recommendations are based on the findings of the study. The first section of the recommendations deals with the academic staff and the second section deals with the library staff.

### **6.4 RECOMMENDATIONS FOR THE ACADEMIC STAFF**

#### **6.4.1 The Balme Library should be the first point of call during information-seeking**

**It is recommended that, the Balme Library be the first point of call for the academic staff in seeking information because the university library plays a vital role as the depository and the disseminator of knowledge to aid teaching, learning and research in the academic environment.**

#### **6.4.2 Academic staff should make their information needs known**

**It is also recommended that, the academic staff make their information needs known to the Balme Library so that current and relevant resources are acquired for those who need them and also, that outdated resources are preserved for those in need of such.**

#### **6.4.3 Academic Staff should accept the offer to serve as Faculty/Departmental representatives to the Library**

The study revealed that, insufficient use is made of the Balme Library by the academic staff. To promote a better use of the Library, **it is recommended that the academic staff**

**serve as Faculty/Departmental Representatives who would liaise between the Faculties/Departments and the Library in developing the Library collections in their respective academic disciplines.** This would enable the academic staff have confidence in the collection and would also increase their use of the facility. Being part of the collection building process will also improve the rate of relevance of the type of materials sought by the academics.

**6.4.4 The Acquisitions Department of the Balme Library educate or explain to the academic staff why they should keep updating the reading lists for courses**

Obsolete information materials are one major problem faced by most of the academic staff that use the Balme Library. Academic libraries select materials in subject areas for educational and research purposes, with the selection done by several different stakeholders including faculty only, joint faculty-library committees and librarians. It is recommended that:

- a) **The Acquisitions Department of the Balme Library educate or explain to the academic staff why they should keep updating the reading lists for courses. This is because when outdated materials are requested by the academic staff to be acquired by the Library, such materials are sometimes rejected by the vendors because they may be out of print.**
- b) **It is further recommended that, the academic staff improve their relationships with the Library by coming over to ask the Librarian and his staff about developments in the Library.**

It is believed, by so doing, some of the things that are taken for granted by the Library could be pointed out to them and the necessary antidotes provided to counter unfavourable conditions in the Library.

#### **6.4.5 The academic staff should make extensive use of the UGcat**

The problem of unavailability of materials was also a key one identified by the respondents. **It is recommended that, the academic staff make extensive use of the University of Ghana Online Public Access Catalogue (UGcat).** Here, provisions are made for users' input for purchase of library materials, suggestions, electronic resources and many other types of relevant information that are promptly attended to. This, it is believed, makes the user feel a sense of ownership of the system.

#### **6.4.6 Establishment of a Liaison Programme**

Another **recommendation is the establishment of a liaison programme to involve the Library and academic departmental faculty jointly in the collection development process.** This would help to facilitate the building of a strong collection, and also foster better communication between the Library and the academic community. It would also enhance patron-oriented image of the Library which would culminate in the increased use of its resources.

#### **6.4.7 Partnership Between Academic Staff and Library Staff**

It is finally **recommended that partnership be negotiated and instituted between the**

**academic staff and the library staff for the benefit of student learning and effective facilitation of a culture of information literate society in the University.**

## **6.5 RECOMMENDATIONS FOR THE LIBRARY STAFF**

**It is recommended that, the Balme Library should be proactive.** Here are some ways by which the proactivity could be achieved:

- a) The Balme Library must keep track of all academic staff and all other users of the library resources and services – circulation records - must be kept of the academic staff;
- b) The academic staff should complete profiles representing their interests and specific areas. This could then be translated into subject headings, author names and so on, so that whenever books or other types of materials for that matter are acquired, announcements in the form of e-mail messages could be sent to Academic Staff and all other patrons informing them of the new acquisitions.
- c) Another way to be proactive might be the distribution of a package of information describing the Balme Library's services and resources. Such a package should be in plain text explaining how the library functions. It should also list the names and addresses of library contacts or guides who should be prepared to assist users on how to use the Library to find specific information. All this information could be put on CDs.
- d) Telephone reference is still a popular service, and Balme Library can turn the table round to call its users – the academic staff- in this case to come and use

the facilities. For example, it is possible to include in the Balme Library web pages a “call me” hot link within a specific time frame. By selecting this hot link, an HTML form appears promptly for patrons to enter their name and telephone number. Upon submitting the form the patron is notified as to when they might be called. In any event, the submitted form would be sent to the Reference Librarians who are charged with making these telephone calls.

- e) Establishment of Subject Librarians was another prominent suggestion made by respondents. This is in line with the literature review undertaken by Suresh, et al. (1995) and also Farber, (1999) in his case study. Farber recognizes faculty-librarian cooperation as one of the most essential ingredients in effective library instruction.
- f) Selective Dissemination of Information (SDI) is a current awareness system which alerts a user to the latest publications in his or her specified field of interest. A user registers with such a system with keywords representing his or her field of interest called a search profile. When new publications matching the search profile appear, the system informs the user of them instantly, periodically or upon request. The same systems may also be able to inform the user if changes in already notified publications occur.

#### **6.5.1 The Library Staff Should Find Ways to acquaint the Academic Staff with the Library Resources and Services**

It is important that Balme Library staff find ways to familiarize the academic staff with the Library’s resources and services. This is because if the academic staff is familiar with

the Library's resources, they would use and also encourage their students at all levels to use the facilities available in the Library, thereby increasing the rate of the Library's usage. It is also crucial that the library staff make sure that the academic staff know how to use the library resources both within and outside the library. To this end, it is recommended that:

a) **The library staff should mount a programme of bibliographic instructions to enable them educate the academic staff on how to learn to distinguish between materials found on the Internet using search engines like Yahoo, Google and others on one hand; and materials that can be accessed through library gateways where the information posted is really done by seasoned librarians for academic work on the other hand.**

The bibliographic instructions programme should also touch on how users could critically evaluate both print and electronic resources. The researcher believes that this would also help users appreciate the vast amount of sources available for research, which would then increase user satisfaction in the Balme Library.

The perceived quality of the library resources could be a key to the use of the library.

b) **It is recommended that the Balme Library should acquire the right kinds of resources to aid research, teaching and learning.** Without these, the academic staff would continue to use other libraries which best meet their needs. This is because with the advent of the information and communication technologies, resources mean much more than the size of the library collections.

**c) It is further recommended that the library staff be proactive. They should monitor the needs of the academic environment by being in constant touch with the academic staff in developing and updating courses and reading lists for students.**

### **6.5.2 Newsletters**

**It is also recommended that the Balme Library should publish a Newsletter that would be issued on regular basis to the entire university community.**

The contents of the Newsletter should comprise:

- a. all that the Library does;
- b. the Library's resources and services;
- c. a list of newly acquired materials and any relevant information on the Library;
- d. the capabilities of the library staff including their qualifications, research interests and so on.

The publication of the Newsletter would become an important the marketing tool for the Library. It would also enable the real and potential users of the Balme Library have an insight into the role the Balme Library plays.

### **6.5.3 Open Day or a Library Week Celebrations.**

**It is further recommended that the Balme Library institutes an "Open Day" or a "Library Week" celebrations.** During this celebration, the Library should invite all categories of users, donors and other stakeholders to come and interact with the Library and its staff. This would serve as a good opportunity for all concerned to ask questions and demand answers about issues that are not clear to them concerning the Library and its

operations, and user's interests and concerns. This should also be a good opportunity for the Library to explain in details the current programmes it has in place and all other future programmes to its stakeholders. The occasion would serve as another important means by which the Library markets itself.

#### **6.5.4 Periodic Assessment of Effectiveness of Services and Resources**

Another **recommendation is that, as a matter of urgency, the Balme Library should undertake periodic but regular assessment studies of the effectiveness of service programmes and library support to faculty and students' research, teaching and learning.** By this process, the library would be able to determine which services and or resources to maintain and the ones to improve upon or discard completely to ensure efficient performance. This recommendation is critical because effective collection development is possible only when it is based on a sound knowledge of the service community.

#### **6.5.5 User Information Needs Assessment**

To determine the role and the value of the Balme Library, it is pivotal for the Library to assess the information needs of its users. In this vein, it is **recommended that, the Balme Library should have a mechanism by which to understand the information needs of the academic staff in particular and that of all other users in general.** This would enable the Library have an insight into the information needs of its users and to tailor the collection to meet their needs. This is because finding out what user priorities and agenda are and providing the necessary resources to meet these needs would get the

Library attention. This could also enable the Library press for more financial support from the mother institution in order to augment its stock in its bid to satisfy the needs of the users.

#### **6.5.6 Selective Dissemination of Information (SDI) Services**

It is **recommended that, the Balme Library embark on SDI services.** These are a means by which the library would develop and maintain user interest profiles which would continually monitor and provide for the information needs and interests of its service population. This would ensure more relevant collection development process.

It is finally recommended that the University of Ghana Library System should ensure that the right Collection Development Policies (CDPs) are in place so that the users of the Libraries would have confidence in and would also use the resources. This is because the Library is regarded as the life and the soul of the University.

#### **6.5.7 Develop Skills and Programmes**

It is **recommended that, the management of the Balme Library systematically analyze staff development needs and job skills required to meet new challenges that they encounter in service delivery.**

#### **6.5.8 Establish a Culture of Research**

It is **recommended that the library staff should establish a culture of research as part of their responsibilities.** This, it is believed would help the Library identify

problems in the course of service delivery and appropriate measures taken to resolve these problems.

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**APPENDIX I:**

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

**QUESTIONNAIRE FOR INFORMATION SEEKING BEHAVIOUR PATTERNS  
OF ACADEMICS OF THE UNIVERSITY OF GHANA, LEGON**

Dear Sir,

The questionnaire is to elicit information form the academic staff of selected faculties of the University of Ghana as part of a Master of Philosophy Programme.

I would be very grateful if you could complete the questionnaire with openness. All responses will be treated confidentially.

Thank you for your co-operation.

Yours faithfully,

(Olivia Akosua Kpodoe)  
Student/Researcher

**A. Biographical Information**

1. Gender:      a. Male [ ]      b. Female [ ]
2. To which faculty do you belong?
  - a. Faculty of Arts [ ]
  - b. Faculty of Science [ ]
  - c. Faculty of Social Studies [ ]
3. Department/School/Institute? .....
4. What is your academic rank?
  - a. Professor [ ]
  - b. Associate Professor [ ]
  - c. Senior Lecturer/Senior Research Fellow [ ]

- d. Lecturer/Research Fellow [ ]
- e. Assistant Lecturer/Assistant Research Fellow [ ]
- f. Other(s) please, specify .....

**B. Level of Awareness of resources and services**

- 5. Are you aware of the various services and information resources that the Balme has? a. Yes [ ] b. No [ ] c. Don't know [ ]
- 6. Which of these library resources are you aware of? (Please tick as many as apply)
  - 6a. i. Online Academic Database [ ]
  - ii. Database of African Theses & Dissertation (DATAD) [ ]
  - 6b. i. Catalogues [ ]
  - ii. Indexes [ ]
  - iii. Abstracts [ ]
  - 6c. Textbooks [ ]
  - 6d. Theses [ ]
  - 6e. Journals [ ]
- 7. What are some of the services you know the library provides? (Please tick as many as apply)
  - a. Preparation of brief bibliographies to help teaching and learning [ ]
  - b. User education facility to train users on how to access databases [ ]
  - c. Library Orientation [ ]
  - d. Selective Dissemination of Information [ ]
  - e. Profiles [ ]
  - f. Photocopying [ ]

- g. Printing [ ]
  - h. Other(s) please specify .....
8. Which of these services do you use? (please tick as many as apply)
- a. Preparation of brief bibliographies to help teaching and learning [ ]
  - b. User education facility to train users on how to access databases [ ]
  - c. Library Orientation [ ]
  - d. Selective Dissemination of Information [ ]
  - e. Profiles [ ]
  - f. Photocopying [ ]
  - g. Printing [ ]
  - h. Other(s) please specify .....
9. How do you get to know of the information resources/services in the Library?  
(Please tick as many as apply)
- a. From library staff [ ]
  - b. By chance [ ]
  - c. Newsletter [ ]
  - d. Other(s), please specify .....
10. Do you use the Library as often as you would wish?
- a. Yes [ ] b. No [ ] c. Don't know [ ]
11. If Yes, which of these resources do you use? .....
- 11a. i. Online Academic Databases [ ]
  - ii. Database of African Theses & Dissertation (DATAD) [ ]

- 11b. i. Catalogues [ ]
- ii. Indexes [ ]
- iii. Abstracts [ ]
- 11c. Textbooks [ ]
- 11d. Theses [ ]
- 11e. Journals [ ]
12. If ~~Yes~~<sup>Yes</sup>, what prevent you from using them?
- a. Inconvenient opening hours [ ]
- b. Library staff unhelpful [ ]
- c. Inadequate access skills [ ]
- d. Rely on personal collections [ ]
- e. Materials available are not relevant to my work [ ]
- f. Other(s), please specify .....
13. Please suggest ways to improve the Library's resources/services? (please tick as many as apply)
- a. Involve academic staff in building the library collection [ ]
- b. Provide specific training for academic staff on how to access databases [ ]
- c. Library should regularly inform academic staff as to what the library has [ ]
- d. Other(s) please specify .....

C. Information Seeking

14. What do you seek information for?

- a. Career development (publish or perish) [ ]
- b. Prepare lecture notes [ ]
- c. Update knowledge [ ]
- d. For research work [ ]
- e. Write a research paper [ ]
- f. Guide researchers/students [ ]
- g. Provide up-to-date references on courses to students [ ]
- h. Personal ego or prestige [ ]
- i. Conformation and or refute an issue (Quick reference) [ ]
- j. Other(s), please specify .....

15. Which sources/services of information do you generally use when seeking for information? (Please tick as many as apply)

- a. Journal Articles [ ]
- b. Reprints [ ]
- c. Handbooks [ ]
- d. Textbooks [ ]
- e. Review [ ]
- f. Conference Proceedings [ ]
- g. Abstracts [ ]
- h. Indexes and bibliographies [ ]
- i. Card Catalogues [ ]

- j. Selective Dissemination of Information Service [ ]
  - k. Current awareness Services [ ]
  - l. Audiovisual media [ ]
  - m. Electronic Databases [ ]
  - n. The Internet [ ]
  - o. Network with colleagues through private correspondence [ ]
  - p. Discussion Group of which you are a member [ ]
  - q. Discussion with Librarian [ ]
  - r. Other(s), please specify .....
16. Where do you normally get the information sources? (Please tick as many apply)
- a. The Balme Library [ ]
  - b. Departmental/School/Institute Library [ ]
  - c. Personal Library [ ]
  - d. Colleagues [ ]
  - g. Other(s) specify .....
  - .....
17. What type of materials do you seek in the University Library?
- a. Textbooks [ ]
  - b. Journals [ ]
  - c. Newspapers [ ]
  - d. Government publications [ ]
  - e. Theses [ ]
  - f. Research Reports [ ]

- g. Reference materials [ ]
  - h. Other(s) specify .....  
.....
18. What are the problems (if any) you encounter while seeking information in the Balme Library?
- a. Material not available [ ]
  - b. Material out of date [ ]
  - c. Library staff not willing to help [ ]
  - d. Lack of knowledge in the use of library [ ]
  - e. Inconvenient reading space [ ]
  - f. Other(s) specify .....  
.....
19. Please suggest measures that could be put in place to ensure effective use of information resources/services of the Library. (Please tick as many as apply).
- a. Presentations at official University gatherings (e.g., Faculty Board meetings, Convocation, etc.) [ ]
  - b. Establish subject librarians at faculty level to serve as links between Faculty and Library [ ]
  - c. Create reading area for academic staff [ ]
  - d. Library should be proactive [ ]
  - e. Other(s) specify .....  
.....

## APPENDIX II

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

#### QUESTIONNAIRE FOR INFORMATION REQUIREMENTS AND INFORMATION BEHAVIOUR PATTERNS OF FACULTY AT THE UNIVERSITY OF GHANA, LEGON

Dear Sir/Madam,

This questionnaire is to elicit information from Professional/Para-professional Librarians of the University of Ghana concerning the level awareness of information needs of the academic staff of the University as part of a Master of Philosophy Programme.

I would be very grateful if you could complete the questionnaire with openness. All responses will be treated confidentially.

Thank you for your co-operation.

Yours faithfully,

(Olivia Akosua Kpodoe)  
Student/Researcher

#### A. Biographical Information

1. Gender:      a. Male [   ]      b. Female [   ]
2. Status:      a. Professional [   ]      b. Para-professional [   ]
3. What is your highest academic qualification in Librarianship Information Studies?
  - a. Doctor of Philosophy
  - b. Master of Philosophy
  - c. Master of Arts/Master of Science
  - d. Postgraduate Diploma
  - e. Bachelor of Arts
  - f. Diploma
  - g. Other(s) please, specify .....

4. How long have you been working in the Balme Library?
  - a. 0-5 years [ ]
  - b. 6-10 years [ ]
  - c. 10 years and above [ ]

**B. Awareness and Information Needs of academic staff**

5. Do you know that the academic staff have information needs?
  - a. Yes [ ] b. No [ ] c. Don't know [ ]
6. If Yes, are you aware of what the information needs of the academic staff are?
  - a. Yes [ ] b. No [ ] c. Don't know [ ]
7. How do you know of the information needs of the academic staff?
  - a. Academic staff come in library with needs [ ]
  - b. Library is in constant link with academic staff through Department/  
Faculty Officer [ ]
  - c. Unofficially [ ]
  - d. Other(s) please specify .....
8. What do you do as an information specialist to make your resources service known to the academic staff?
  - a. Talk with academic staff unofficially about the Library resource [ ]
  - b. Presentation at University gatherings (e.g., Faculty Board Meeting,  
Convocation, etc. [ ]
  - c. Departmental presentations [ ]
  - d. Do nothing to make resources known [ ]

- e. Through Newsletter and occasional releases [ ]
  - f. Other(s) please specify .....
9. Suggest means by which The Library can make its resources/services known to academic staff? (Please tick as many as apply)
- a. Presentations at official University gatherings (e.g. Faculty Board Meetings, Convocation) [ ]
  - b. Establish subject librarians at faculty level to serve as links between faculty and library [ ]
  - c. Library should be proactive [ ]
  - d. Circulate list of newly acquired materials [ ]
  - e. Other(s) please specify .....  
.....