

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

September 2019

Assessment of New Academic Programmes at the University of Ghana and Their Implication on Library Services: Case Study

Kennedy Andoh Mr.

Council for Scientific and Industrial Research - Institute of Industrial Research, adken2020@yahoo.com

Raphael Kwame Kavi Mr.

Council for Scientific and Industrial Research - Food Research Institute, kaviraphael@gmail.com

Grace Obeng-Koranteng Mrs.

Council for Scientific and Industrial Research - Institute for Scientific and Technological Information, graciArabeng@yahoo.com

Kwabena Asiedu Bugyei Mr.

Council for Scientific and Industrial Resarch - Food Research Institute, kabugyei@gmail.com

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>



Part of the [Library and Information Science Commons](#)

Andoh, Kennedy Mr.; Kavi, Raphael Kwame Mr.; Obeng-Koranteng, Grace Mrs.; and Bugyei, Kwabena Asiedu Mr., "Assessment of New Academic Programmes at the University of Ghana and Their Implication on Library Services: Case Study" (2019). *Library Philosophy and Practice (e-journal)*. 2917.

<https://digitalcommons.unl.edu/libphilprac/2917>

Assessment of new academic programmes in University of Ghana and their implication on library services: case study

Kennedy Andoh

CSIR-Institute of Industrial Research, Accra, Ghana, adken2020@yahoo.com

Raphael Kwame Kavi

CSIR-Food Research Institute, Accra, Ghana, kaviraphael@gmail.com

Grace Obeng-Koranteng (Mrs.)

**CSIR-Institute for Scientific and Technological Information, Accra, Ghana,
graciarabeng@yahoo.com**

Kwabena Asiedu Bugyei

CSIR-Food Research Institute, Accra, Ghana, kabugyei@gmail.com

Assessment of new academic programmes in University of Ghana and their implication on library services: case study

Kennedy Andoh; Raphael Kwame Kavi; Grace Obeng-Koranteng and Kwabena Asiedu Bugyei

Abstract

The study focused on the implication of the introduction of new academic programmes on the resources of Balme Library in University of Ghana, Legon. The case study methodology was used with a study population of 47 staff constituting both senior members and senior staff of Balme Library and the Director of Academic Affairs respectively. Data collection instruments used were questionnaire and interview. The responses were analyzed using the Statistical Package for Social Science (SPSS). The study revealed that, the Balme Library was not consulted or involved during the introduction of new academic programmes. In addition, student enrolment was increasing every year due to the introduction of new academic courses as well as general increased in access to tertiary education, but there was no corresponding increase in resources like staff, materials and space at the Balme Library. Also special funds are not allocated to Balme Library to support the introduction of new academic courses. In order to improve the service and resource base of Balme Library to support the introduction of new academic programmes it was recommended that the University of Ghana should consider establishing a virtual library, increase staff strength, expand physical infrastructure, seek alternative source of funding and ensure collaboration between the Balme Library with satellite libraries on campus to ensure quality academic output.

Keywords

Academic libraries, Academic programmes, Library services, University education, Ghana

Introduction

A well-established library is essential for any academic institution. As a focal point for teaching, learning, and research, it is expected to provide standard information resources. Today; academic libraries are struggling to keep their place as the major source of inquiry in the face of emerging digital technology. Digital technology has revolutionized not only the way information is packaged, processed, stored, and disseminated, but also how users seek and access information. Academic libraries no longer restrict themselves to print services such as collection development, cataloguing and classification, circulation and reference services, current awareness, selective dissemination and other bibliographic services, but have extended their efforts to interdisciplinary concepts and computer software and hardware and telecommunication engineering and technology (Anunobi & Ifeyinwa, 2008).

As observed by Campbell (2006), “numerous creative useful services have evolve within academic libraries in the digital age: providing quality learning spaces, creating metadata, offering virtual reference services, teaching information literacy, choosing resources and managing resource licenses, collecting and digitizing archival materials, and maintaining digital repositories”. Academic libraries presently are faced with not only the decision on what books and journals to acquire to satisfy faculty and students but also on who to remain relevant in the digital era, mindful of low budgets and resentment on the part of institutional administrators.

The establishment of libraries is not a new concept. For centuries, libraries have served as repositories of information and knowledge that have provided the vital underpinnings for socioeconomic, political and cultural development in any civilization. Their relationship with cultural progress has been so interdependent that it is needless to argue whether man’s cultural advancement merely produces libraries as by-product (Alemna, 2000).

In order to meet the growing needs of users the library system has been greatly improved and upgraded to meet new challenges. These improvements include the introduction of electronic resources like database services and computers with Internet connectivity which enhances students’ access to information. In addition, reference services have improved by Librarians anticipating the information needed by patrons and selecting them to answer these queries of patrons. The services offered by libraries have also undergone a great change. With the advent of new technologies in the field of computers and telecommunications, revolutionary changes have

taken place in the field of library and information science. The shape of traditional libraries containing a large number of printed documents in the process of being transformed to paperless libraries containing a large number of digitized documents. The facilities offered by networking have not left libraries untouched. Modern libraries are not only digitized but networked also. This has led to the creation of virtual libraries that is, libraries without walls through which the user has access to information at anytime, anywhere in the world by using the modern tools of communications, such as computers and internet facilities.

Basically, there are five major types of libraries and these are academic libraries, public libraries, special libraries, school libraries and national libraries with each associated with the parent institution. For the purpose of this study, the academic library will be used to bring the study into perspective. Aina (2004) defines an academic library “as all libraries that are attached to post-secondary institutions”. Notwithstanding this definition, Alemna (2000) also gave a definition in the Ghanaian context by stating that “an academic library comprises of the libraries of the country’s tertiary institutions”. These include libraries of tertiary institution such as universities, polytechnics, training colleges and some professional institutions like the Institute of Chartered Accountants (Ghana). Alemna (2000) further explains that this type of library is usually fully government subsidized and aims at the development of science, technology, education and research in the interest of society.

In Ghana, the introduction of new academic programmes in the public universities and a sharp increase in access to tertiary education among secondary school graduates with consequent increases in student enrolment has brought about educational trends that have changed the role played by academic libraries. It has therefore become imperative for libraries such as the Balme Library of the University of Ghana to remain up-to-date with the latest advances in technology so that the dissemination of information becomes efficient, quick, reliable, feasible, economical, accessible and useful.

The Balme Library, as the central library of the university, was established in October 1948 and named after the first principal David Balme of the then University College of the Gold Coast. The main function of the Balme Library is to provide appropriate forms of recorded communication needed for study, teaching and research in the university (Alemna, 2000).

Physically, the Balme Library comprises two main floors: the ground floor and the first floor. The ground floor consist of the catalogue/reference issue hall; three wings flank these hall, each having a reading room on either side. Behind these halls are the Administrative offices (Readers Handbook, 2007). On the first floor are located the African Library, the Development Information Centre (formerly World Bank Collection), the Rare Book room and the CD ROM office on the East Wing . On the West Wing is the Student's Reference Library (SRL) and the Reserve Collection (Akwa, 2007).

The major functional sections of the Balme Library are the administration, acquisitions, cataloguing, reader service (reference section, reading hall, circulation and interlibrary lending), periodical/serials, technical services and the electronic support unit. Other special functional sections include the Africana, the development information centre, the Braille library, the Arabic library, the United Nations Library and computer laboratory. The information resources available to users in Balme Library include electronic and print books, journals, and database materials such as CD-ROM, UG Cat online and Internet services all of which provide students with supplementary background knowledge to most of the subjects taught in formal lectures. It also gives access to wider knowledge of the world through the provision of informal reading materials on a wide range of topics (Readers Handbook, 2007).

The introduction of new courses at the University of Ghana obviously has become vital and increased student enrolment in each academic year has implications for library services. To give meaning to the broad mission of the university as developing world class human resources and capabilities to meet national development needs and global challenges through quality teaching, learning, research and knowledge dissemination, a former Vice Chancellor of the university, Professor C.N.B Tagoe in a speech stated that “the University will continue to introduce new programmes/courses mainly to meet current trends in the development of the nation's human resource as well as utilize space during the long vacation” (Students Graduation Report, 2009).

Resources such as personnel, space, physical facilities and time are challenges that occur when new regular and irregular programmes are introduced to meet current trends of development. Invariably, the introduction of new academic programmes at the University of Ghana will influence the resource base of Balme Library. Statistics available from the Academic Affairs Unit (2009) revealed that from 2004 to 2009 a total of 17 programmes have been introduced on the

main campus, and this comprises 2 diploma programmes, 2 undergraduate courses and 13 graduate programmes. The introduction of these new programmes would have effects on the academic environment of the University of Ghana and some level of influence on the activities of the Balme Library.

Statement of the Problem

The Balme Library is regarded as the largest and the oldest academic library in Ghana with a vital role in ensuring service for intellectual excellence in the lives of students from its parent institution university of Ghana (Students Graduation Report, 2009). However, the introduction of new programmes/courses and its corresponding increased student enrolment have not been matched with the requisite physical and human resources at the Balme Library resulting in poor library services to students.

Whilst the university's student enrolment has increased dramatically from 29,754 in 2004-2008 to 42,692 in 2009, an increase of approximately 70 percent, the human and physical resources have not seen the necessary improvement. Despite this increase the Balme Library has a current staff strength of 120 as has been the case for the past five years from 2004 to 2009 (Basic Statistics, March 2009) and the collections have not seen much increases. This situation has brought about associated problems such as inadequate personnel, lack of study materials (books and electronic materials) and other resources such as space to support service delivery by the Balme Library.

Funding of Balme Library by government is inadequate since it competes with other public institutions and agencies for budgetary allocation. Academic materials such as books, journals and facilities to support teaching and research purposes are expensive therefore, making it difficult for Balme Library to acquire them due to its limited funds. The demand on Balme Library has increased due to the increasing number of students because Library serves as the primary source of information for students on campus.

The increasing student-lecturer ratios has made it impossible for any meaningful tutorials to be conducted thereby making students resort to independent learning and information seeking in the Balme Library to effectively aid their studies on campus. The question one may ask is whether the Balme Library has been adequately resourced to meet the increasing student numbers and the introduction of new academic programmes. These problems have necessitated a study on the

implications of the introduction of new academic courses/programmes on the resources of the Balme Library.

Purpose of the Study

The purpose of the study is to investigate the implications of the introduction of new academic courses/programmes on the resources of the Balme Library in order to make recommendations for improving library service.

Objectives of the Study

The following are the objectives of the study:-

- To determine whether Balme Library is involved when new programmes/courses are introduced.
- To ascertain the availability and adequacy of funds for the acquisition of materials for new programmes/courses by Balme Library.
- To find out the challenges faced by Balme Library in meeting the library requirements for new courses/programmes introduced.
- To ascertain the student/staff ratio at Balme Library and its implication for library service delivery and
- To make recommendations for improving library services at Balme Library in the face of the introduction of new courses/programmes.

Literature review

Theoretical framework of the study

Two theories that applied to the investigation of the problem understudied was adopted. The theories are namely Ranganathan Theory on the Five Laws of Library Science and the Malthusian Theory on population growth and resource sharing. The Ranganathan Theory on the Five Laws of Library Science used for this study explain the problem of materials (books into print and non-print format) in the Balme Library and how it can be matched with the increasing student enrolment of the University of Ghana. This is because it has a scientific approach on how books are used and matched with student numbers in any library establishment. However, the Malthusian theory on

population growth and resource sharing helped explain the issues of the Balme Library resources like staff, space, and physical facilities and how it support students studies in the aspect of service delivery by the library.

The Ranganathan's Five Laws of Library Science is a classic work, which describes in detail the library resources, services and growth of owners of libraries and their implications for service delivery. These laws have provided a scientific approach to library science. They constitute the philosophical basis for the work and services of all types of libraries (Siddiqui, 2009). In this study, the Ranganathan's Five Laws of Library Science, was used as a guide to access the ratio between student enrolment and materials (books) of Balme Library.

The Five Laws of Library Science enunciated by Ranganathan are as follows:

- Books for use;
- Every reader his/her book;
- Every book its reader;
- Save the time of the reader and
- A library is a growing organism. (Siddiqui, 2009).

Subsequently, with the technological advancement and modern development when documentation activity was gaining importance, the Ranganathan's Five Laws of Library Science was reworded as follows:

- Documents are for use;
- Every user his/her document;
- Every document its user;
- Save the time of the user and
- Documentation center is a growing organism. (Siddiqui, 2009).

In the fifth law, the word 'organisms' implies a 'system' concept; 'growing' connotes a 'living system'. Prof. Anthony H. Thompson of the College of Librarianship, Wales (UK) delivering a speech in the Ranganathan Memorial Lecture held at the National Aeronautical Laboratory on 15 to 17 January 1985 updated the five laws further in the context of Information Science in the following way:

- Information is for use;
- Every information user his/her information;
- Every piece of information its user;
- Save the time of the information user and
- The universe of information is an ever growing organism. (Siddiqui, 2009)

Ranganathan's first law – books are for use: In an age where libraries are increasingly judged in terms of their performance by a focus on issue statistics, the first law seems as much a concern as it was 75 years ago. It is imperative to ensure library patrons use the materials selected and purchase for them.

Libraries are not just about storing books, they are about people having access to books. This is something Ranganathan made clear in the discussion of the first law, by stating the historical importance previously placed on preservation of books above access. Obviously both should be of concern, but this is where the digital technologies that Ranganathan could only have dreamt of play their most vital role. “Librarians are blessed with the opportunity of making available to many the knowledge of mankind through continuing emphasis on digitization” (Siddiqui, 2009).

Digitization skills are now core skills for anyone who wishes to be a librarian in the 21st century, and this can easily be justified by focusing on the priorities laid down in the first law. Books are indeed for use, and if conversion from analogue to digital creates many more users for the one title then Ranganathan would have welcomed such a process with open arms (Chowdhury et. al, 2004).

The first law is also forward thinking in terms of its emphasis on library location. Increasingly libraries are sited, or even relocated, in more accessible places in order to increase custom. A trend in the UK has been to merge public libraries with other services, such as sports centers, or move the library location to main thoroughfares rather than outlying parts of the community. Simple logic, but essential all the same if the library is to be accessible to the user. Location also relates to the virtual library concept. Again this is at the heart of the modern interpretation of the first law – the location for use may not be the library at all and increasingly is not (Siddiqui, 2009).

The second law – states that “every person his or her book”. The second law is perhaps the most understated; even Ranganathan, acknowledged that within this one principle lies so much of what libraries mean to society. On a basic examination the conclusion drawn was that the law relates

to the fact that all have diverse interests and that there is a book out there to satisfy that for all of us, and it would indeed be a correct interpretation of one facet of the law. Brought up to date it could be argued that for “every book” a substitute “every piece of knowledge” and then cover electronic publications and other media easily. However, this interpretation merely scratches the surface of the second law; at its core is the need to fight for the right of users to information of all kinds, the consistent battle against censorship and inequality of access that has governed civilization since its inception.

The library’s or librarian’s duty is to help users find the information they require and ensure any blocks in the way are not blocks created by librarians. The barring of access to knowledge is anathema to the second law, and it would be interesting to see how Ranganathan would consider the issue of Internet filtering in libraries across the world. Certainly, the law does not call for every person to have his or her book as long as it does not offend another person or group’s sensitivities. It could be argued that the second law is the one that must continuously defend above all others, since it at its root is the freedom for people to access writings of all kinds and inform their own minds on topics that others may wish to suppress (Siddiqui, 2009).

The second law also needs to be cherished because it reminds librarians or libraries to be impartial in dealings with users. Users may not like what they request from the library, and may think a book or other resource is inadequate, but they should never place our own prejudices in the way of access. This is as crucial if prejudices are based on political or religious beliefs, then care must be ensured that librarians represent the beliefs of other communities responsibly. Ensuring a collection is representative of the community that a librarian represents is absolutely vital (Siddiqui, 2009).

The third law states that- “every book its reader”. The need to provide easy access to materials is one way of putting people together with what they require. Equally, putting books into the hands of people who do not necessarily know which book they need is at the heart of the third law. Reader development is a part of the third law, create awareness and promote books that are available to the users that may not be known to them and that may offer them opportunities to be aware of other titles.

The fourth law states that – “save the time of the reader”. Saving the time of the reader has always been a concern of the librarian. It is for this purpose that creation of catalogues, bibliographies,

indexes and abstracts have become very necessary and essential. In the analogue world, this was important concept, but in the virtual its importance has increased dramatically. Saving the time of the reader also relates to how a library actually organizes information. People often can become so obsessed with the standards of cataloguing at the expense of a user. While catalogues are tools for retrieving items accurately, they become items that waste time of the reader if items are haphazardly catalogued or if the cataloguing is excessively focused on the intricacies of the art. Many public libraries use simplified forms of Dewey with no more than four numbers after the point, which to a cataloguer may seem like sacrilege. However, when considering the time of the user as a vital notion, a simple and effective system is what is called for (Siddiqui, 2009).

The fifth law states that – “the library is a growing organism”. The library of the 21st century continues to be a growing organism. Perhaps with increase in digital information it can be deduced that the growth is not as pressing from the point of view of physical space, although this remains something many libraries will always struggle with. Even in the digital world, the analogue continues to be important. Book publishing remains healthy, and indeed a much less expensive endeavour than it was in 1931. Libraries will continue to struggle with space problems with regards to providing comprehensive collections to users. Perhaps there will be a growth in resource sharing amongst libraries in a bid to combat this (Siddiqui, 2009).

Space is certainly an issue in a world where more and more materials are being delivered digitally. The sacrifices librarians have to make between space for book shelves and space for computer terminals to deliver this ever expanding need will be a growing one. In my own experience, book shelves making way for computers can be an especially controversial action if it is not handled properly, and it can be something that is received badly by both staff and users if it is done without appropriate consideration. This can also interpret the library as a growing organism in relation to its impact on staffing and skills. As the library grows in terms of its services the skills of the library that will be necessary to deliver these new services will also grow. Perhaps it can be argued that both libraries and the profession of librarianship are growing organisms.

The implication of Ranganathan’s law for Librarians is varied. On the first law-books are for use, implications to Balme Library are that the acquisition of books for use by students must be relevant to disciplines students belong to. Access points to online resources must be readily available where and when they are needed by students offering these new academic programmes. All obstacles

between the book and its reader should be removed in order to enable students get satisfaction from the use of the Balme Library. In effect, Balme Library should eliminate the obstacles that prevent students from making effective use of electronic resources.

In addition, the second law which is every person and his book ensures that student in various disciplines are satisfy with the collection of Balme Library and that the Library must ensure a well-balanced reading materials for new programmes introduced. Balme Library must realize that, there is differential interest in terms of students' users needs in relation to the disciplines of these students offering these new programmes.

Also, the third law, which states that “every book its reader” presupposes that the reference section of the Balme Library must ensure the allocation and promotion of books available to students offering these programmes are easily accessible. Thus, Balme Library staff should avoid the wastage of user's time involved in search for particular library material by creating effective catalogues. Provide meta searching capabilities so the users can search entire set of electronic resources and link revolvers so that users get access to the best source. This would “save the time of the reader” as echoed by the forth law.

The fifth law, a library is an organism requires that the Balme Library is regarded as part of the larger university community and offer anytime, anywhere, access to libraries and the Information Commons; and the invisible Web. That is the importance and relevance in the very existence of Balme Library in assisting in the educational excellence of students, must be accorded the needed boost to help enrich its resources.

It can be concluded that Ranganathan's five laws essentially constitute a fundamental contribution to the development of Library Science, Documentation and Information Science. They are fundamental because they are event in relevant in relation to the past, present-day developments, as well as future developments. Although the Five Laws of Library Science consist of five short statements, the boldness and clarity of thought behind these is remarkable. These statements appear to be too simple but in reality these laws are quite complicated. These have made an impact on the growth and development of theory and practice. In addition, the Internet is very useful in the process. In this case, the students who are equipped with search strategies would be able to search for the relevant information from the Internet and make it useful in their studies. Therefore,

university of Ghana as an institution of higher learning must provide a rich resource base for Balme Library to enhance learning and research activities

The second theory adopted in this study is the Malthusian theory of growth which states that “there is the tendency for the population of a country, unless checked by the dwindling resources, to grow at a geometric rate, doubling at the same time, because of diminishing returns to the fixed factors or resources which could expand only at a roughly arithmetic rate”. Thomas Malthus’ theory was simply propounded to depict the relationship between population growth and economic development (Todaro, et. al, 2004).

The Malthusian population theory in the context of this study makes the introduction of new academic programmes to possibly cause the students enrolment in the university to increase. This naturally will cause pressure on the resource base of the Balme Library as stated by Thomas Malthus. For instance, resources of the Balme Library such as staff recruitment, its financing by government and its collection do not easily respond to changes.

To link the Malthusian population growth theory further to this study the final delivery of services to students and other patrons of the Balme Library will diminish as student enrolment increases at a geometric rate (1, 2, 3, 4, 8, ...) while resources to enable effective and efficient service delivery might increase at arithmetic rate (1, 2, 3, 4 ...) as postulated by Malthus. The idea is so because resources are not naturally evenly disperse. As in the case of the Balme Library, resources allocated are not apportioned based on students’ enrolment but rather compete with other units of the University for resource sharing. Invariably, resources of the Balme Library such as space, materials, staff, funds and physical facilities are not matched with the growing numbers of student enrolment as in the case of the University of Ghana.

Review of related literature

Academic Library Development

According to Alemna (2000), the issues in academic library development include broad headings like union catalogue, inter-library loan service, faculty status, increased enrolments, new courses, problems with faculty and the committee of university Librarian. According to him “changes in the society and the academic environment also means that new courses and programmes have to

be introduced in the universities. The cost of acquiring materials for new programmes introduced in tertiary institutions is very high, and with no special funding for such programmes, the libraries have to dig into the already slim budgets to accommodate the new programmes. Enrolments in the university in Ghana are increasing each year without a corresponding increase in library resources and materials (Alemna, 2000).

While the library budgets are diminishing, there is an increased demand for the services, collections and staff. The greatest demand is for space, for users, staff, materials and equipment. In addition, emphasis was also made on inter-library loan services to be intensified since it is not possible for any library, however large or comprehensive, to have the resources to satisfy the needs of all users at all times, it is imperative that libraries organize schemes for inter-library lending. Unfortunately, inter-library lending has not been very effective in academic libraries in Ghana. This scheme is extremely important in the Ghanaian situation since research materials are often out of print and libraries are, therefore, unable to acquire them”.

Similarly, in a study conducted by Badu (2004) on top managers' perspective on main issues that can shape the development of academic libraries in Ghana, data was collected from 21 academic libraries in Ghana. The study revealed that, “there have been enormous increases in student numbers without corresponding increases in funding and academic libraries have been under several pressures over the last decade to manage their libraries effectively and efficiently. They are also increasingly required to extend or supplement services by the use of electronic technology”.

Reasons for the introduction of new academic courses

According to Alemna (2000), the introduction of new academic programmes was necessary as a result of social, economic and cultural changes that occur almost every day in the lives of mankind. This implies that the introduction of new courses was geared towards the general development, growth and general livelihood of mankind. This is a mandate and vision that is vigorously pursued by all tertiary institutions.

A supportive view could be drawn from the speech from the vice chancellor of the University of Ghana, Professor C.N.B. Tagoe, who during the 2009 graduation remarked that “the introduction of new programmes was mainly to meet the current trend of global development and also to bring out a marketable resource base” (Student Graduation Report, 2009). This therefore brings about

an entire educational trend with the introduction of new syllabus, teaching and lecturing skills. New lecturing skills as, lecturers even undergo for some level of training on how to deliver to students a particular new programme introduced.

Williamson (2001), in his article entitled “library and academic collaboration: a case study in media and communication studies” reported how the introduction of new academic programmes have increased greatly in Australian Universities. Many courses in this field are offered within a liberal arts context. Those designing and delivering these courses face the familiar higher education challenges of teaching larger and more heterogeneous cohorts with reduced resources and preparing students to follow different trajectories in modularized degree programs.

Crucial to meeting these challenges is the integration of training in library research skills and disciplinary learning strategies. The Australian Universities case study illustrates the use of library information systems at the first year undergraduate level in media and communication studies to embed skills of information literacy and independent learning in the curriculum.

Future Trends of New Academic Courses for Libraries

In the library review report, conducted by the Library Association of the University of California (1996) the emphasis was on the library resources such as the collection, facilities, staffing and technological provisions of the library. Inflation of prices for library materials in all formats will continue at a rate higher than the cost of living index. Electronic formats often cost more than equivalent print resources; many resources now available for free over the Internet will probably be commercialized.

There is no sign of any systematic role for the library in planning with the campus administration and academic departments for new faculty and new programs. The disparity between library allocations and academic needs will continue to grow. The expectation is the of the use o multiple formats for information with an increase in electronic resources and electronic indexing. Most Internet sources are currently available at no charge, but the trend is appropriate resources for academic programs. Electronic materials distributed through the Internet can provide increased access for the campus community, but this added value often comes at a higher price tag than traditional media.

According to Marcum (2003) the future of the academic library is a topic of continuing concern for the profession, but usually the boundaries of projected visions are set firmly in the issues and debates of the day. What means might be found to break open those constraints and encourage visions projected further into the future?

In the fall of 2002, a unique partnership between the New Jersey Association of Colleges and Research Libraries (ACRL) and Farleigh Dickinson University Libraries initiated a quest for fresh thinking about the future by organizing an essay contest with the topic “The Academic Library in 2012”. The horizon was set at 2012 because it was felt to be far enough out that current issue would not automatically limit the thinking of those taking part in the contest. Prize money was offered as an incentive to motivate participation despite an abbreviated time frame, and the call went out through various lists popular with the profession. In a blind reviewing process, two separate and anonymous panels evaluated the essays and selected a range of choices as the most worthy entries. The main issues discussed included the use of the academic library the building of a virtual library to meet the future trend of global development.

Silverstone (2001) anticipates virtual conferencing with access to extensive media storage, providing opportunities for students to explore issues and locales much like journalists learn their way in a new foreign assignment. Bill Kennedy, a university Webmaster in University of California, envisions similar uses of technology, but he describes the situation in terms of metaphors. No longer a room with a host, the library of 2012 will be experienced as a virtual reality with a “zoom atlas” to whisk the learner to other places, with time travel to jump back into history or forward into the future, and with enacted dialogue to allow “conversations” with people from other times and places. Not one metaphor, or a few, but a virtual “Metaphor Factory” (Kennedy, 2002). These two essays share visions of continuous media providing the means to escape existing constraints.

According to a Cowles library review in the Drake University conducted by Jurasek (2008) on the trends that will shape the future of academic libraries, the following broad issues were outlined:

- **New Generation of Learners**

Today’s students are “digital natives” and have grown up with technology. They are coming to higher education with aptitudes and expectations that have been shaped by the use of the Internet,

digital media, and portable communication technologies. Students often begin their search for information with Google or similar commercial or social search engines. “The academic library must develop a virtual presence that enhances student engagement and reflects the prevailing aspects of the virtual world – self-paced, independent, and social. Library services will be structured to accommodate an increasingly diverse group of users” (McDonald & Thomas, 2006).

- **Learning Spaces**

“The value of quality physical space is increasing. Data, derived from surveys and use counts, indicate that academic library space is in demand. Students and faculty see the library as important and unique - providing learning space in both a "social" context and a more traditional "scholarly" presence. Along with its services, resources, and technology, the library is both a physical and virtual agora and commons for the 21st century (see also "Campus/Community Cultural" section below). Current facilities need to be replaced, or altered to reflect these functions” (Bennett et al, 2005).

- **Learning and Information Literacy**

“Students utilize commercial and social electronic capabilities to inform all their activities, including research. These capabilities are often embraced without full knowledge of their limitations. Libraries and the academy can provide more authentic and certain information; however, the other crucial role is to provide an environment of integrated information literacy that demonstrates the value of the scholarly process. Information literacy requires a rebirth as a discipline based upon critical reflection on the nature of information itself” (Reed & Stavreva, 2006).

- **Technology**

“Libraries and the academy have a challenge and opportunity to re-package content and services for emerging technologies. Such services require awareness of the advanced capabilities (and radically different user expectations) of these technologies. A "services not systems" approach will be required by both campus and library IT; recognizing the reality that the same, or better, software and technology that has traditionally been offered by the academy is now available to the user for little or no charge on the Internet. The "brand" of information and technical utilities will be largely

irrelevant; indeed, the labeling of technology as "academic-based" may well be seen as a negative to those used to the progressively-evolving world of Internet-based tools"(Jurasek, 2008).

- **Scholarly Information System /Publishing**

“The once stable system of access to scholarly (or authentic) knowledge is undergoing a radical change as a result of the migration to digital formats. Commercial and academic presses are implementing new models for distribution, pricing and availability of scholarly content – impacting how libraries provide access. The ongoing “crises in cost” continues to produce inflationary pressures that average 10% increases per year. Publishers are also asserting greater control on copyright that will require universities to exercise more careful documentation of Reserve operations and copyright compliance and royalty payments. Textbooks are also migrating to digital format, and, subject to pricing and access policies, may become more readily available for distribution from the library” (Hagerdorn, 2006).

- **Digital Archives and Repositories**

“Universities and libraries have an opportunity to reshape the publication and distribution of research and knowledge as a result of new technologies and digital formats. Increasingly, scholarly information is both “born” and accessed only in electronic formats. The “open access” movement in higher education presents an alternative to commercial “for profit” publishing. Distribution and archiving through digital repositories will insure that the academy has a viable system for sustaining digital content. Digital repositories also will facilitate the long term conversion and preservation of print materials, and create new opportunities to structure learning activities around the content”(Jurasek, 2008).

- **Campus/Community Cultural Events**

Traditionally the academic library was thought of as the center of the University’s academic community. Today the academic library is extending that reach to build relationships outside the library. It is increasingly important to pursue partnerships with faculty, staff, students and communities that promote programs focusing on not only literacy, but also cultural awareness and diversity.

- **Workforce**

It is an increasing challenge for libraries to recruit and retain qualified librarians and staff. Many academic librarians are retiring, and there is increasing competition, from industry as well as academe, to recruit new librarians. Most librarians, and many staff positions, require a mix of teaching skills, additional discipline expertise, and technology skills. Additionally, the increased emphasis on the diversity of our users requires that the library make similar efforts in hiring. With a rapidly changing environment both within and outside the library, staff development programs are crucial to the continued success of the organization.

- **Policy, Financial Support and Accountability**

“The value systems of individuals, groups, and political movements will continue to heavily influence the direction of public policy and institutional priorities. Change and challenges are likely to continue to emerge on issues concerning confidentiality/privacy, copyright, and intellectual freedom (censorship). Challenges to the “non-profit” sustainability of a system that promotes access to scholarship as a public good and a responsibility of the academy will grow. At the same time, rising costs for scholarly information and infrastructure, as well as the need to redesign services and facilities, will require enhanced fiscal support. This is coupled with increasing demand for accountability from all segments of the academy. Libraries must uphold professional standards and a commitment to service. Management of costs and assessment of program effectiveness will be hallmarks of the design and sustainability of services” (Neal, 2005).

Implications of New Courses for Academic Libraries

According to Badu (2004) universities in Ghana are almost financed entirely by government subvention. Students pay some meager fees towards the use of some facilities. The government spends 40% of its national budget on the educational sector. Tertiary institutions are allocated between 12% and 18% of this total and the universities are allocated 90% of the tertiary institutional budget. This mode of funding universities is changing as government is upgrading the polytechnics to university levels and the 90% is to be spread evenly to the old and new universities. Badu (2004) further indicated that funds for universities are allocated through the mechanism of budgets presented by the individual universities to the Ministry of Education. The Ministry of Education the presents its budget to the Ministry of Finance which in turn provides the university administration with their financial allocation.

Budgets for university cut at each stage before they are finally released. Thereby funds that are finally approved by the Finance Ministry for a university and other academic libraries are dependent on government revenue generated per quarter. The implication is that, the manner of funding of universities eliminates the potential for effective resources allocation as the linkage of planning goals at resource allocation decisions by the management of the libraries is non-existent. The extent of government control of universities funds is further shown in its prescription of a programme “linked budget” with the aim of reducing the running costs of the universities (Lauc, 1996).

According to the library review conducted by the Library Association of the University of California (Lauc, 1996) “an insufficient budget means that the library cannot support existing programs, let alone new ones. The scope of the collections is becoming more parochial: due to lack of funds, many foreign and international journals and collection managers are finding it increasingly difficult to purchase international or even interdisciplinary materials. As a result, it is becoming more of an undergraduate library, rather than a research library”.

The library will be increasingly unable to support additional research areas, which has implications for attracting faculty. The increased workload for librarians has resulted in decreased quality and/or quality of services to library users. There are fewer people available to staff the reference desks for “on demand” services (Lauc, 1996).

Improving Library Service

The University of California as a whole needs to recalculate the formulas on which library collection funding is based. The Santa Barbara campus needs to make a commitment to provide more local funding for library collections to support academic programs. If collections cannot be funded at a level proportional to previous collection standards, pragmatic decisions made about what levels of teaching and research will be supported. The University as a whole and the Santa Barbara campus in particular need to inform faculty of the crisis in scholarly publishing and encourage responsible publishing practices which will help slow the Library’s spiraling costs (Lauc, 1996).

The Library should be involved with the campus administration and the relevant departments at early stages of program planning and faculty recruitment to ensure that the necessary resources

will be available to support change and growth. When new faculties are hired, the library should receive additional funding to purchase materials to support their research. Continuing funding is needed if new serials are to be purchased as well as one-time funding to fill gaps in monographic collections.

With regard, to the library review report of Cowles Library, is dedicated to a continuous improvement through the process of assessment and evaluation. Collected data is used to enhance current and develop new services, and to expand the collection of resources made available to students, faculty and staff at Drake (Jurasek, 2008)

From the Drake University 2008 library review report "Cowles Library provides an excellent example of how Drake University has used assessment and vision to transform the learning environment for students and provide new teaching resources for faculty." The faculty and staff of Cowles Library are committed to providing accountability for its programs by measurable assessment activities (which are represented in the Cowles Data Repository), and by the integration of missions (institutional and unit), values, planning, goals (organizational and personal), and services." Again, from the Cowles library review report, "Library faculty and staff adhere to the highest professional standards and are committed to a rigorous process for program assessment and staff development" (Jurasek, 2008).

Line (1990) reporting on the current issues in academic libraries, outlined among other issues strategic planning, technology, new service development and financial management, relationships with other campus units, and new services and traditional structures, as some of the major issues that needed redefinition to be in tune with modern operational realities.

Contributing to the debate on improving library service, Veaner (1994) argues that academic librarianship needs a completely new manifesto. Issues raised by eminent academic librarians in Ghana points to that direction for the early years of this millennium. Rather, the new manifesto needs to evolve from an acceptance of some of the prospects described by the respondents in the study as well as an intense commitment to the highest levels of service, appropriate behaviour, team work, information technology strategy integration and a demand-led acquisition. A long renewal and major upgrading of systems after initial installation will have to be of prime concern. This would have to be built into the budgets and annual equipment grants of the academic libraries.

It has to be on an annual basis because all programmes of renewal and upgrading need to be rolling and continuous.

Methodology

The research design adopted for this study was a single case study approach. The case study as a research strategy or approach has been described by Yin (1984) as an empirical inquiry that investigates a contemporary phenomenon within its real life context. It is used when the boundaries' between phenomenon and context are not clear. They are also suitable for exploring fairly new and complex subject area. The case study approach is preferred because information to be gathered would be put under specific context, and a specific geographical scope, that is the Balme library of University of Ghana.

In order to achieve the objective of the study, both primary and secondary sources were used in the data collection. Questionnaire made up of both close-ended and open-ended questions and interview schedule were the main instruments used for collecting data for the study (Fraenkel & Wallen, 1993). The designed questionnaire was divided into five sections: Section A consisted of background information of staff, Section B was on how funding are provided for the acquisition of materials for new programmes/courses for Balme Library, Section C dealt with information about whether Balme Library was consulted when new programmes are introduced. In addition, Section D looked at study materials available in Balme Library most especially to support new courses introduced and finally Section E gathered information on students to staff ratio on Balme Library and their implications for service delivery.

The overall population for the study comprise both senior members and senior staff of Balme Library, the Academic Affairs Director, and the entire University Library Board members since the introduction of new academic programme is a strategic management decision. From the study population of 67 a sample size of 47 was used, comprising 45 members of staff from Balme Library, the University Librarian and the head from the Academic Affairs Unit. The 47 members were purposively sampled because they constituted the core of the study, and were involved in taking direct managerial decisions and other operational activities which culminated in effective and efficient running of the Balme Library.

Results and Discussion

Introductions of New Programmes and Implications on Balme Library

The study sought to ascertain the level of involvement of the Balme Library in the introduction of new courses/programmes, the respondents were asked if indeed the Balme Library was consulted. In response, 40 (88.9%) indicated that the Balme Library was not consulted before new academic programmes were introduced. Only 5 (11.1%) respondents, however, affirmed that the Balme Library was consulted. This indicates that, Balme Library was not consulted or involved directly/formally on issues related to the introduction of new programmes in the University of Ghana.

In response to the question as to whether the library is given enough time for the acquisition and processing of materials, 40 respondents representing 88.9% stated that the library was not given adequate time to acquire and process new materials for new academic programmes. Few respondents, that is 5 (11.1%), however, answered in the affirmative. The results therefore indicate that Balme Library is not given adequate time to plan or prepare for new programmes introduced in the University.

The key findings of this study shows that in the advent of introduction of new academic programmes, Balme Library is not consulted in any form. Also the Balme Library is not given enough time to prepare and make materials available for these new programmes. Indeed during the interview, the academic affairs directors affirmed that consultation is rather between the Academic Affairs Unit and the faculty board. The findings was also not consistent with the library review done by the Los Angeles University of California (LAUC-SB, 1996) which states that in the advent of the introduction of a new academic programme, consultation should strictly be done between the university's academic board and the faculty libraries.

Funding for Balme Library

A general question was asked to find out if the Balme Library was allocated funds by the University. In response, 38 respondents representing 84.4% affirmed that the University allocates funds for the running of Balme Library whereas 7 respondents representing 15.6% did not respond to the question. This shows that majority of the respondents were aware or affirmed that the

university indeed allocated funds for the running of Balme Library. The researchers also sought the views of the staff on alternative sources of funding for the running of the Balme Library. Table 1 below shows details of the findings:-

Table 1: Alternative Sources of Funds for the Running of Balme Library

Source of funds	Frequency	Percentage
Donation and gifts	2	4.4
Academic user fees	12	26.7
Government	17	37.8
All of the above	14	31.1
Total	45	100

Source: Field Survey

It can be observed that 17 respondents representing 37.8% indicated that the library gets its funds through government, 14 (31.1%) mentioned all of the above categories, 12 (26.7%) stated academic user fees whilst 2 (4.4%) mentioned donations and gifts as alternative sources for the running of the Balme Library. This reveals that government contributes the majority in funding for the running of Balme Library.

On the issue of adequacy of funds for the running of the Balme Library, 26 respondents representing 57.7% stated that the funding was inadequate meaning funds were not enough to acquire the needed materials/resources for the running of the library. On the contrary, 19 (42.3%) of the respondents, however, stated that the amount of funds allocated to Balme Library was to some extent adequate.

When asked whether the Balme Library had special funds to cater for new programmes, the majority of the respondents, 43 (95.6%) indicated that, the library does not receive any special funds for the acquisition of materials for new programmes introduced. Only 2 respondents representing 4.4% answered in the affirmative. This shows that budget for the acquisitions of materials for new courses were not catered for exclusively from the annual budget, therefore there were no direct allocations of funds for new courses introduced.

Key findings of the study was that funding was predominantly by government and allocation was done by the university to the Library. These funds were not adequate for the provision of basic resources needed by the Balme Library to support these new academic programmes introduced. The researchers observed that the situation was as a result of the over dependence of the Balme Library on limited government funding since it competes with other public institutions and agencies for scarce budgetary allocation.

The idea is consistent with Badu's (2004) assertion that "there have been enormous increase in student numbers without corresponding increases in funding and academic libraries have been under severe pressures over the last decade to manage their libraries effectively and efficiently'. Alemna (2000) also confirmed the statement by saying that "academic libraries like the Balme Library are usually fully government subsidized.

Another finding was the fact that there are no special funds set aside for the running of Balme Library in the advent of introduction of new programmes. This is because; funds are not generated or solicited for the introduction of new academic courses in the university.

Challenges faced by Balme library in making materials available

The study showed that resources such as space, furniture, materials, shelves, computers and staffs are inadequate to fully support the increasing number of students who patronize the services of the Balme Library. Materials acquisitions for Balme Library are not done separately for introduction of new courses. From an interview with the Academic Affairs Director, it was realized that the acquisition of materials for these programmes are done by the faculty/departmental libraries. However, the Acting University Librarian confirmed in the interview that contributions to materials acquisition for new courses are not their responsibility because they are not informed directly about its introduction. The situation is consistent with Almena's (2000) assertion that "changes in the society and the academic environment also means that new courses and programmes have to be introduced in the universities. The cost of acquiring materials for new programmes introduce in tertiary institution is very high, and with no special funding for such programmes, the libraries have to dig into the already slim budgets to accommodate the new programmes. Enrolments in the university in Ghana are increasing each year without a

corresponding increase in library resources and materials”. The worrying situation turns out to be the major challenges of any academic library most especially in developing countries.

In effect the acquisitions of the materials are done by considering the list of materials presented by the faculty board members of the university. The researchers view is that material acquisition by Balme Library for new programmes introduced in the university are inadequate and not supported effectively by university authorities.

The study also revealed that, shelves and space accommodation for collection of new materials especially were not adequate at Balme Library. These challenges faced by Balme Library go to re-affirm the statement by the library review conducted by the Library Association of the University of California (Lauc, 1996) “an insufficient budget means that the library cannot support existing programs, let alone new ones. The scope of the collections is becoming more parochial: due to lack of funds, many foreign and international journals and collection managers are finding it increasingly difficult to purchase international or even interdisciplinary materials. As a result, it is becoming more of an undergraduate library, rather than a research library”.

Ratio of Students to Staff at Balme Library

A series of questions were asked to assist the authors have a clear picture of how the staff of Balme Library matches up to the growing student numbers. Table 2a below indicates that while 17 respondents representing 37.8% stated that students use the library in the evening, 12 (26.7%) stated that students use the library at all times, that is morning, afternoon and evening, 10 representing 22.2% of the respondents indicated that students come in their numbers in the morning, while 6 representing 13.3% stated afternoon. Thus students patronize the Balme Library mostly in the evenings because it seem the ideal time for students to revise or undertake further research on lecture notes that was taught during the day.

Table 2a: Peak Period for Students' Patronage of the Library

Time of Day	Frequency	Percentage
Morning	10	22.2
Afternoon	6	13.3
Evening	17	37.8
All of the above	12	26.7
Total	45	100

Source: Field Survey

The authors also sought staff views on periods of the day when most staff were on duty and Table 2 b below reveals that 23 respondents representing 51.1% noted that most of the staff were on duty in the morning whilst 15 (33.4%) stated that some of the staff reported for duty in the morning, afternoon and evening. This shows that, while students patronize the library mostly in the evenings, the majority of the staff were on duty in the morning.

Table 2b: Periods of the Day in which Most Staff are on Duty

Period of day	Frequency	Percentage
Morning	23	51.1
Afternoon	5	11.1
Evening	2	4.4
All of the above	15	33.4
Total	45	100

Source: Field Survey

The key findings of the study revealed that the staff strength of Balme Library was quite small in terms of numbers in relation to the student enrolment of the university. This situation is so because of the introduction of these new academic programmes every year without frantic effort by the authorities to match staff numbers with student enrolment.

Another pertinent finding that was causing much harm than good was the utilization of Balme Library by most of the students in the evening whereas most of the staff turns to be on duty in the morning. This whole situation presupposes that, the Balme Library staffs are outnumbered by these increasing numbers of students' patronage during this period.

Conclusion

The study investigated the implications of the introduction of new academic programmes on the resources of Balme library, in order to make recommendations for improving library services. The research shows that the introduction of new academic programmes in the University of Ghana had caused a rapid increase in student enrolment. However, the inference drawn from student staff-ratio and the pressure on staff of Balme library was that the staff strength of Balme Library does not correspond to the dramatic increase in student population when new programmes were introduced. The study also revealed some challenges faced by Balme Library in trying to make materials available for these new academic programmes introduced.

Also resources of Balme library like space, furniture, shelves are all under pressure when these new academic programmes were introduced, thus contributed to poor service delivery offered by the Balme library. From the study, the majority of the staff attributed these challenges to the lack of support from the Academic Affairs Unit of the University in ensuring that Balme library was formally consulted or involved when new academic programmes are introduced each year. The Balme library was not being consulted or involved in the planning and implementation of new academic programmes. This has resulted in the lack of technical advice in making most resources available for use in good time by students who were offering these new programmes.

The absence of special funds allocation to Balme library in the advent of an introduction of new academic programmes, from the study shows that the library only depends on the already existing budget for survival. Also, the Balme library was predominantly funded by government where it competes with other institutions and agencies for the scarce budgetary allocation. From the study

therefore, the majority of staff indicated that funds of Balme library were inadequate for any meaningful contribution in terms of new programmes introduced. From all indications, the introduction of new academic programmes enhances the production of a country's manpower to suit global development and technological advancement. Therefore, as the Balme library plays a pivotal role in ensuring academic excellence of students, it must be assisted to improve its performance through the allocation of special funds for the purposes of expanding its resource base to support new programmes introduced, thus enhancing the quality of library service delivery.

Recommendations

Based on the findings of this study, the following recommendations were made to help improve the activities of Balme Library and any other library in a similar situation in the light of the introduction of new academic courses/programme:-

- **University authorities should consult and involve Balme library:** - as the central and large library which serves all students from all disciplines on and off campus must be consulted and involved by the University's Academic Affairs Unit when plans are being made for the introduction of new academic programmes. The present situation where new programmes are introduced without the involvement of Balme Library, the library is unable to prepare adequately to acquire materials such as books, journals and other resources to help carter for these programmes being introduced. However, if the Balme Library was consulted this would enable the library prepare effectively and efficiently in acquiring the requisite materials for these new programmes.
- **Seek alternative sources of funding:** - Special funds must be solicited and allocated to Balme Library by the University and even by government in the advent of an introduction of new academic programmes which are mostly geared towards economic and human resource development of the country's man-power. With the current state of affairs in the Balme Library, budgetary allocation from various sources are inadequate; making it very difficult for acquisition of resources such as (print and non-print materials), staff, shelving space and computers. These funds would help in developing the resources of the Balme Library in terms of acquisitions of materials, training of staff and physical facilities towards these new programmes.

- **Increase of staff strength:-** The staff strength of Balme library must be increased by employing more personnel and also putting in place measures to assist staff improve their competency levels to meet the standard number that can match these increasing student numbers as a result of the introduction of new programmes. This would help bridge the gap between staff and student ratio in bringing about effective and efficient services delivery by the library to their patrons most especially to students.
- **Expand physical infrastructure:** - Expansion of Balme library must be undertaken to help cater for new shelves and new collections, space for an increase number of furniture and also space for a large number of student patrons' intake in the library due to these new programmes introduced. The expansion of Balme library would enable the display of most books on shelves, as the increase of furniture would also encourage and cater for more students at all times in the day with no overcrowding of student patrons. This would eventually bring about a conducive environment for studies by students as the expansion of physical infrastructure would be enough to accommodate more student patrons and other resources.
- **Library collaboration:** - Balme library must collaborate frequently with the Faculty Board on issues of new programme likely to be introduced before a proposal is sent to the Academic Affairs Unit for approval. This would help Balme library to be aware of an introduction of academic courses/programmes and give their expertise advice on how materials are going to be acquired for them.
- **Establish virtual library:** - Balme library could venture into operating a virtual library system through purchasing and acquiring more Information Technology Infrastructure to offer online services to students and faculties. It could even be a wireless connection to the Internet which would be accessed by students anywhere on the University campus. This would help solve the overcrowding of students at the Balme library due to the introduction of these new academic programmes which has increase student enrolment.

References

- Aina, L.O. (2004). *Library and information science text for Africa*. Ibadan: Third World Information, Sam-Adex Printers.
- Akwa, C. (2007). *Collection management at Balme library*. (Unpublished master`s dissertation) University of Ghana, Accra, Ghana.
- Alemna, A. A. (2000). *Libraries, information and society*. An inaugural lecture delivered on 19th November, (1998) at the auditorium of the School of Administration, University of Ghana, Legon. Accra: Ghana University Press.
- Anunobi, C.V & Ifeyinwa, B. O. (2008). The role of academic libraries in universal access to print and electronic resources in developing countries. *Library Philosophy and Practice*. Available at: <http://unllib.unl.edu/LPP/anunobi-okoye.htm>.
- Bacho, F. Z. L. (2001). *Infrastructural delivery under poverty: potable water provision through collective action in Northern Ghana*. Dortmund: Dortmund Press.
- Badu, E. E. (2004). Academic library development in Ghana: top manager`s perspective. *African Journal of Library, Archives and Information Science*, 14 (2), 93-107.
- Bennett, S., Demas, S., Freeman, G. T., Frischer, B., Oliver, K. B. & Peterson, C. A. (2005). *Library as a place: rethinking roles, rethinking space*. Washington, D.C.: Council on Library Resources.
- Campbell, J. D. (2006). Changing a cultural icon: the academic library as a virtual destination. *Educause Review*. 41(1), 16-31.
- Chowdhury, G. G (2004). *Introduction to modern information retrieval*, 2nd ed-. London: Facet Publishing.
- Fraenkel, J. R. & Wallen, N. E. (1993). *How to design and evaluate research in education*. New

York: McGraw-Hill.

Hagerdorn, K. (2006) *Search tools: looking for pearls*.
<http://www.researchinformation.info/rimarapr05oaister.html>.

Jurasek, K. (2008). *Trends that will shape the future of academic libraries: a case study of the Cowles library review report in the Drake University, India*. <http://library.drake.edu/pages/trends-will-shape-future>.

Kennedy, R. W. (2002). *Metaphor factory*. Available at
<http://alpha.fdu.edu/~marcum/metaphorfactory>.

Lauc, S. B. (1996) *Brief for library review*. California: University of California Press.

Available at: <http://www.library.ucsb.edu/library-review./html>.

Line, M. (1990). *Current issues in academic libraries*. In: Line, M. (ed) *Academic library management*. Edited papers a British Council Sponsored courses 15th – 27th January, 1989, Birmingham: Library Association.

Lombardi, J. V. (2000). Academic libraries in a digital age. *D-Lib Magazine*, 6 (10).

Available at: <http://www.dlib.org/dlib/october00/lombardi/10lombardi.html>.

Marcum, J. W. (2003). Visions: the academic library in 2012. *D-Lib Magazine*, 9(5).

Available at: <http://www.dlib.org/dlib/may03/marcum/05marcum.html>.

McDonald, R. H. & Thomas, C. (2006). Disconnections between library culture and millennial generation values. *Educause Quarterly*, no.4, 4-6. Available at: <https://er.educause.edu/-/media/files/article-downloads/eqm0640.pdf>.

Neal, J. G. (2005). Information anarchy or information utopia?. *Chronicle of Higher Education*, 52 (16), B23-B24. Available at:
<https://www.chronicle.com/article/Information-Anarchy-or/2773>.

Reed, S. L. & Stavreva, K. (2006). Layering knowledge: information literacy as critical

- thinking in the literature classroom. *Pedagogy: Critical Approaches to Teaching Literature, Language, Composition, and Culture*, 6 (3), 435-452. Available at: https://read.dukeupress.edu/pedagogy/article-pdf/6/3/435/306923/PED63_04-Reed.pdf.
- Siddiqui, M. A. (2009). *Dr. S. R. Ranganathan's five Laws and their relevance and on imperative in context of library science*. Available at: <http://EzineArticles.com>.
- Silverstone, S. (2001). Big-picture-overview exhibit displays: books, visuals, virtual. Available at: http://alpha.fdu.edu/~marcum/visions_silverstone.doc.
- Todaro, M. P. (2003). *Economic development*. Harlow: Pearson Addison Wesley.
- University of Ghana, (2009). *Student graduation report*. Accra: University of Ghana Press.
- University of Ghana (2007). *An Introduction for readers*. Accra: University of Ghana Press.
- University of Ghana (2009). *Basic Statistics*. Accra: University of Ghana Press. p. 15
- University of Ghana (2009). *Student Graduation*. Accra: University of Ghana Press.
- Veaner, A. B. (1994). Paradigm lost paradigm regained: a persistent personnel issue in academic librarianship II. *College & Research Libraries*, 55(5), 389-402. Available at: <https://crl.acrl.org/index.php/crl/article/view/14914/16360>.
- Williamson, D. (2001). Library and academic collaboration: a case study in teaching media communications. *Australian Academic & Research Libraries*, 32 (1), 53-60.