Stakeholders’ Needs Assessments on Curriculum Development for Library and Information Science Program at Jimma University in Ethiopia: A Review

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Abstract: The review of stakeholders’ needs assessments curriculum development for Library and Information Science program at Jimma University in Ethiopia was conducted. It established that the program passed through the fundamental principles of curriculum development that identified, considered and recognized the needs of stakeholders’ in Ethiopia through needs assessments researches, whose outcomes informed the launching of the program. The review did not only highlight the need for the undergraduate program and its curriculum development to be all inclusive of courses offered, but also gave information on content, purpose, method, duration, trainers and locations of the program. It went further to point out how curriculum development for undergraduate professional degree program is centered on how the artifacts of human knowledge are structured, organized, managed, evaluated, and made accessible in libraries and information centers and why universities offering the program in Ethiopia believed that Information Science and newly emerging related fields like information systems and design must be taught together since the technical, humanistic, social, and behavioral aspects are interrelated. It finally observed how the library and information science curriculum should build into it the knowledge of technical possibilities and constraints, which shaped users services; as well as the redefinition of the traditional concept of library, which should be transformed from places to access paper records or books to one that also houses the most advanced electronic resources, including the Internet, digital collections and remote access to a wide range of information.

Keywords: curriculum development; Ethiopia; information science; Jimma University; library; need assessment; review; stakeholder

I. Introduction

Ethiopia is a well known ancient country with a rich diversity of peoples and cultures and a unique alphabet that has existed for more than 3,000 years. The country is situated at the cross roads between the Middle East and Africa and embraces a complex variety of nations, nationalities and peoples, and linguistic groups. Its peoples altogether speak over 80 different languages constituting Semitic, Cushitic, Omotic and Nilo-Saharan languages. The country has always maintained its independence, even during the colonial era in Africa and one of the founding members of the United Nations. It has been playing an active role in African affairs, specifically played a pioneering role in the formation of the Organization of African Unity (OAU). Addis Ababa being the capital city of Ethiopia has been the seat for OAU since its establishment and continues serving as the seat for the African Union (AU) today in reference [1].

For sometimes now, Library and Information Science training and development in Ethiopia has been the watch word of the Federal Democratic Republic of Ethiopia, which has embarked on a higher education expansion and reform program of impressive dimensions that has created new universities, established system support agencies, new courses introduced, and triple enrolments in reference [2]. Of course, what would guide education in a country are the needs of the nation, and specifically with the need for technology advancement. The structure of Ethiopian educational system for government and non-governmental organizations include preschool, primary education, general secondary education, and preparatory secondary, undergraduate and postgraduate programs. While the statistics of students populations were quoted as: kindergarten = 1,054,048, primary = 16,372,821, secondary=1,736,469, Technical and Vocational Education and Training (TVET) = 459,446; the Higher Educational Institutions (Colleges and Universities) were about 534,631 in reference [3]. Each of these levels of education and figures on student population by standard; ought to be supported with libraries and information centers or resource centers, to allow resource exploitation, self-education and life-long learning. The types of libraries and information centers found in the Ethiopia’s government and non-governmental organizations include: archives and national library, museums, university libraries, special libraries, research libraries, ministry/government libraries and school libraries. With the availability of the various types of libraries and information centers; remains the quest for library and information science schools
in the country to provide staff with professional qualifications to provide library and information services in the identified environments.

From among the universities with library and information science school in the country is the Jimma University, which has the Department of Information Science that is based in the College of Natural Sciences. The Department of Information Science was established in 2005 and runs the curriculum of library and information science. The curriculum in the Department evolved based on stakeholders’ needs assessments curriculum development. Hence, this paper is focused on the review of the stakeholders’ needs assessments on curriculum development for library and information science program at Jimma University in Ethiopia.

II. Literature Review

A. Curriculum Development

Development parse could be defined as the process by which knowledge and skills are translated into physical form from the acquired experiences of individuals within the educational setting (i.e., institutions of learning) in the society. Curriculum is a fundamental part of any education or training programs, which is largely because, it provides not only a list of courses or modules offered in a program, but it gives information on the content, purpose, method, time or duration, trainers and location or situation of a program or course of study - all of which are essential in a successful dispensation of manpower training and education in a discipline. It includes all the experiences that a learner has at school, whether or not planned, to reach the institution’s broad goals and objectives. Such experiences may consist of a pattern of courses, guidance, specific instruction, physical activities, and opportunities for experiences, testing and evaluation in reference [4] & [5].

Curriculum is more than just a program of studies or a set of sequence of courses to be followed by the students and the deliverers but consist of all those activities formal or informal programs designed or encouraged within its organizational framework to promote the intellectual, personal, social and physical development of its students. Reference [6], [7] & [8] viewed curriculum as the totality of learning experiences, activities and services selected from culture and provided by an educational institution within or outside the institution; should embrace not only the objectives and content of what is taught and learnt, but also the materials, methods and evaluation mechanisms used. But reference [9] opined that curricula usually define the learning that is expected to take place during a course or program of study in terms of knowledge, skills and attitudes, they should specify the main teaching, learning and assessment methods and provide an indication of the learning resources required to support the effective delivery of the course. Mckimm went further to state that the curricular cycle involves development through needs assessment, design and implementation phases as depicted in figure 1 on need assessment (below).

Figure 1: Needs assessment

Source: From reference [9]

For curriculum development of a program; Mckimm quoted Peyton and Peyton as stating that there are a number of stages which must be completed within the curricular cycle. Such stages include: determining and agreeing on the educational or professional context in which the program is to be developed and delivered; defining the needs of the learners in line with the requirements of the professional bodies; determining the aims and broad learning outcomes of the program; identifying the ideas and constraints of the program; agreeing on the broad structure and framework of the program, the main areas of teaching and learning, the sequence of the main topics and the key assessments; allocating the detailed development of each topic or course area in terms of defining objectives and learning outcomes to individuals or teams and the course teams to develop coherent program which have defined learning outcomes, timetables, content, appropriate teaching, learning and methods. While a formal curriculum (course or program) should comprise a number of elements that fall within the curricular cycle, it should state the aims, learning outcomes/objectives (knowledge, skills and attitudes), and content, teaching and learning methods as well as the assessment methods. The supporting elements include: learning resources (teachers, support staff, funding, books/journals, and information technology support,
teaching rooms); monitoring and evaluation procedures, clinical placement activities; recruitment and selection procedures, including promotional materials; student support and guidance mechanisms.

As education is useful to the society, so also is curriculum to education. It enables education to have meanings to individuals and to the society. It requires serving the particular values of the society in which it is placed. Hence, Curriculum development indicates the starting point of a program from the scratch rather from an existing state of affairs, and does not stop at the production of some new examination or some new curriculum package to be used in schools but implies an ongoing process of refinement and recreation. It is specifically true whenever the dynamics of science and its application is under consideration, with new concepts evolving while older or other concepts get outdated or updated. This implies also, that regular assessment and updating of the curriculum in the program should be treated as vital because it has to ensure quality and relevance, to cope-up with rapid changes in the field and to adapt the curriculum to the needs and conditions of the country, society or the community. It allows the demonstration of the knowledge, skills, and dispositions of the acquired experiences in whatever field of endeavor to be articulated for successful improvement of the living standard of the society. The nature and needs of any society depends on its system of values and objectives, nature and need of the learner that makeup the society, nature of the knowledge of subject-matter for the citizenry.

B. Library and Information Science (LIS) Curriculum Development

The traditional occupation of librarianship and information specialization services have undergone numerous changes in the last quarter century, primarily due to information and communication technological (ICT) developments and changes in the field, which includes the availability of personal computers, electronic databases, electronic data retrieval methods and the emergence of the global information network known as the Internet. In addition the changes in libraries and information centers should be reflected in the curricula of library and information science schools, which would offer new study tracks and gradually change the status of professionals on the field in reference [10].

When Melvil Dewey opened the first library school at Columbia University in 1887, the core curriculum was designed to provide students with a set of professional skills to assist users in their various institutional environments; as more complex skills and specialized knowledge is demanded of the librarianship profession in reference [11]. The skills, which require information handling to take a unique professional responsibility, and teaching efficient ways to acquire, organize, preserve and circulate, approve legitimate kinds of information to the users, were dependent on technology of the nineteenth century innovations. But reference [12] tracing the history of Library and information science educational programs stated that in the past, they have focused on developing physical collections of books and other materials in library buildings staffed by people who have learned to select, acquire, organize, retrieve and circulate these materials; while today, they have extended beyond the physical collections and buildings to the virtual world of the Internet. However, reference [13] observed that the true interdisciplinary nature of library and information science can only be achieved through the application of the structure of information science program rather than library science program. Reference [14], [15] & [16] seem to support the view; when they stated that information is the key strategic issue for effective and sustainable development of any type of organization in the modern society. That recent advancements and applications of information systems, ICTs, the Internet and the advent of information society have thus changed, shaped, transformed and influenced how the LIS professionals are educated.

Furthermore, recent reports and researches suggest that many LIS schools, globally, have been changing the contents of their curricula, faculties and departmental names, as well as program offerings in reference [17], [18] & [19]. Equally, LIS schools are including in their curricula new courses such as web design and development, digital libraries, knowledge management, as well as human computer interaction in reference [20] & [14]. Other authors have been quoted as writing on the challenges of LIS education to include poor funding, resource limitations, technological change and lack of adequate LIS educators, constant change of landscape of information as well as the challenges of globalization, which require strengthening the LIS curricula and courses to prepare students for the needs of the global employment market and disparities in the nature and level of ICT access and use at different levels and attributed the disparities to both economic and political reasons. Inadequacy of reliable infrastructure, regular and continuous review of LIS curriculum in most LIS Schools, lack of laboratories and equipment, and where they are available, they are inadequate and even inaccessible-especially to the students at the undergraduate level. The provision of apparatus is indispensable to enlighten teaching of LIS and institutions with good and sufficient facility tend to have good output in reference [21], [4] & [22].

C. Stakeholders’ Need Assessment

Stakeholders are people or groups who have interest in what a business is or an influence upon the business. In large organizations we may have many different stakeholder groups; some are internal to the business, like employees. Others are external as they are outside of the business, like government and non-
governmental organizations. Reference [23] defined stakeholders as individuals or groups who have an interest or some aspect of rights or ownership in a project, and can contribute to, or be impacted by, the outcomes of the project. The important thing in this case is that the needs and expectations of these groups have to be identified and balanced in order to act responsibly to all of them and to keep the license to operate, which is necessary for good business. But reference [24] observed that this could be understood by the different types of stake, when their expectations are reflected in the different perspectives offered by the stakeholder theory, which expresses the concepts of justice, equity and social rights having a major impact on the way the stakeholders’ exert moral suasion over project development or change initiatives. What becomes very clear is that whatever philosophy one holds regarding stakeholder theory, the legitimate and valid stakeholders, need to be identified and their power and influence understood so that their potential impact on the project can be better managed. Appropriate strategies can then be formulated and enacted to maximize a stakeholder's positive influence and minimize any negative influence; through having a need assessment studies of the stakeholders.

Need assessment studies on the other hand is regarded as a common tool for economic development practice. It is an analysis of a process, groups or persons that measures the knowledge, skill, interest, attitude, and/or abilities relevant to a particular issue, organization, goal, or objective. Reference [25] stated that needs assessment answers questions about the social conditions a program is intended to address and the need for the program. But reference [26] & [27] defined needs assessment as a systematic approach to studying the state of knowledge, ability, interest, or attitude of a defined audience or group involving a particular subject. Collecting and analyzing needs assessment data allows the investigator to decide the ‘gap’ between what exists and what is needed. While needs assessment often have a variety of goals, in essence all needs assessments are utilized in order to measure gaps between what currently exists and what should exist. The gaps identified through needs assessments can be in infrastructure, technology, processes, or knowledge.

III Methodology

The study using a review research method, collected its data from documentary sources from the Department of Information Science at Jimma University in Ethiopia. The data collected were on the history and development of LIS program at Jimma University; stakeholders’ needs assessments research reports that were conducted for the launching of the LIS program; as well as the experiences and practical participation of the authors in the activities of the Department of information science for which this paper is written. All data collected were analyzed qualitatively.

IV Results

A. Brief history of Jimma University and Department of Information Science

Jimma University being a public higher educational institution was established in December 1999 by the amalgamation of Jimma College of Agriculture (founded in 1952) and Jimma Institute of Health Sciences (established in 1983). It is known as a “pioneer in Community Based Education” that looks into the advancement of knowledge by interdisciplinary approach to education, research and services. The Community-Based Education (CBE) philosophy of Jimma University is a means of achieving educational relevance that is based on stakeholders and community needs; and consequently strive at implementing a community-oriented educational program. The educational program consists of learning activities that use the community extensively as a learning environment, in which not only students but also teachers, members of the community and representatives of other sectors that actively engaged throughout the educational experience in reference [28].

The Department of Information Science in Jimma University was founded in 2005. Its establishment was regarded as “a child of necessity” to alleviate the country’s lack of skilled professional library and information specialists. The nomenclature of the department when it started in 2005/2006 academic year was “Department of Library and Information Science” under the Faculty of Natural and Information Science. In 2006/2007 session, the name of the department was changed to “Department of Information Studies” and by 2008/2009 it changed again to “Department of Information Science”. This last change was as a result of the Business Process Reengineering (BPR) program that was adopted by the University. The BPR phased out the Faculty of Natural and Information Science that the Information Science Department was domicile and was moved to College of Engineering and Technology and a with a new name “Department of Information Science” in 2009/2010. However, in 2010/2011 academic year, the Department of Information Science joined the College of Natural Science. The instability in the nomenclature as well as Faculty or College of domicile for the Department; had historical antecedents that arose from the term ‘library’ on the part of the students, who were reserved on the term based on societal insensitivity towards the profession; although, the changes did not affect the curriculum, which still maintained its “library and information science”. However, this reviewed paper shall use the terms “library and information science” and “information science” interchangeably to allow the flow of information on the reviewed paper.

The Department of library and information science and its curriculum were established based on Jimma University Library System (JULS) stakeholders’ need assessment in 2005. The stakeholders’ need assessment was aimed at launching the Department of Library and Information Science, which was influenced by the non-
existence of the professional LIS education in the country and was backed by the break for nearly a decade; after Addis Ababa University’s termination of its Library and Information Science program in 1990. The non-existence of the LIS program happened; especially when the country is implementing the mass educational sector development programs that require professional librarians and information specialists for the educational sectors and the public libraries and information centers in Ethiopia. However, with the priceless support of the Jimma University, the profession has gained momentum and is flourishing with six universities in the country that have launched the program after Jimma University. The universities include: Adama, Makelle, Gondar, Haramaya, Asosa and Bule Hora. Graduates of Jimma University from the Department of Information Science are playing a vital and leading role in the professional and curriculum implementation of these institutions in reference [29].

B. Stakeholders and needs assessments at Jimma University

The quest for the launching of the “Bachelor of Science Degree in Library and Information Science” at Jimma University in Ethiopia brought about a country wide stakeholders’ need assessment studies in 2005. Stakeholders are most important and were identified to include governmental and non-governmental organizations, which were from internal and external organizations. The internal stakeholders (i.e., Jimma University) are said to control the business that developed the LIS curriculum and the external stakeholders are the customers or beneficiaries for the LIS curriculum respectively. In which case, the fruit of a well–planned curriculum is to be enjoyed by the entire stakeholders or the society, it’s planning and implementation must also be a responsibility of all. It must not be the concern of only the institution concerned. It should be all inclusive of institutions, government and nongovernmental organizations in this case; since they are therefore the beneficiaries of the products of the planned LIS program. These groups of stakeholders have a stake in the use or in the program and should collaborate in designing the program to meet their needs (see figure 2 on the Jimma University stakeholders for the LIS curriculum development).

Figure 2: Stakeholders for Jimma University LIS curriculum developments

The stakeholders for the Jimma University Undergraduate LIS program comprised about 100 organizations/institutions that are governmental and non-governmental organizations (i.e.: 26 Federal Government establishments, 31 Federal Government Agencies, 23 Federal Government Universities, 20 International and Regional organizations). The governmental stakeholders’ organizations are ministries, legislative arm of government, government agencies and institutions of learning. While non-governmental organizations’ stakeholders are international organizations, continental and regional agencies, associations and institutions of learning. The stakeholders are purposefully clustered into six (6) governmental organizations (i.e. ministries, legislative arm, government agencies and institutions of learning (i.e., universities, secondary and primary educational institutions). While Non-governmental organizations clustered into five (5) (i.e. International, continental, regional, associations and institutions of learning) and featured into the figure 2 above. The stake of the governmental and the non-governmental organizations are on the various types of
libraries and information centers found in the stakeholders’ organizations that include the national archives and library, museums, university libraries, special libraries, research libraries, ministry/government libraries and school libraries.

In 2005 in the months of May and June, JULS conducted stakeholders’ needs assessments studies to enable the university launch a proposed program, which was to be titled: School of Library and Information Science, whose curriculum also was to be developed by analyzing the strengths and weaknesses of the former degree program at Addis Ababa University that was discontinued in 1990. Accordingly, reference [30] stated that the objectives and methodologies used for the studies included: soliciting views from graduates (diplomas, bachelors, and masters in library and information science) on the strengths and weaknesses of the programs and the suitability of knowledge, skills and attitudes and applicability to their job requirements; soliciting views from the employers of library and information science graduates on whether the employees met their job requirements and whether there were gaps in the employees’ knowledge, skills and attitudes in the work activities that were attended to by them in the departments; as well as scanning newspapers for library and information science and other related job advertisements applicable to knowledge, skills and attitudes required by employers or the market; and to see the outcome of the study in relation to curriculum development for library and information science program at Jimma University.

The methodologies used for the stakeholders’ needs assessments studies were a purposefully selected graduates of library and/or library and information science program of Universities outside the country and those of the then Addis Ababa University were traced to their places of employment and given questionnaire to respond together with their employers or ‘bosses’, to determine whether the knowledge, skills and attitudes gained during their training then are adequate for their job requirements. Secondly, job advertisements in newspapers (i.e., those appearing in popular national daily newspapers, such as: ‘Addis Zemen’, ‘Herald’, ‘Fortune’ and ‘Capital’) over a period of five years (i.e., 2000-2004) were scanned in order to determine the job-related training that is required by the potential employers. The methods were supported through consultations with senior staff and colleagues in the profession and observing the international trends in the practice of the profession.

The studies found that job opportunities for librarians in the traditional market had significant demand and growths of vacancies were in the increase in Ethiopia. The growth and development of public libraries in the townships were ignored and neglected then. School library development then was also at the decline; despite the increasing number of new schools with the implementation of the new education policy that advocates massive learning in the primary and secondary schools. The education policy at the time of research in 2005 was under implementation in the country with promises of many new job opportunities in school libraries but without materialization. The study further revealed that the nature and size of information-related job prospects in the public and corporate sectors, apart from public and academic libraries, were not readily known. While those known, were not reflecting signs of reliable growth as their publicity remain obscure.

The report noted that the Department of library science of the Addis Ababa University (AAU) was transformed to an undergraduate level with the name of Library and Information Science and was reorganized under School of Information Science for Africa (SISA) that was established in September 1990. Lately then, the department was again transformed into the Department of Information Systems in Business under the Faculty of Informatics. But reference [31] observed from the transformation that the manpower output from this department (Information Systems), automatically moved to other sector activities and not libraries or information centers and became very small but marketable. The need for market diversification and job opportunities in the market he continued, may have forced new thinking in LIS education in Ethiopia but SISA again engaged in wrong transformation and survival driven strategy that excluded LIS education and curriculum facing the new challenges. Tefera’s sympathetic opinion, goes to show the discontent of the discontinuation of the LIS education in AAU and transforming the Department to what is now known as the “Department of Information System”. This transformation could be seen as the genesis for the LIS education discontinuity from the premier University (AAU) that also could be said to have led to the societal insensitivity to the librarianship and information science specialization. Reference [32] referred to the discontinuation of the program as a “hijacked by the information science professionals”.

The absence of the LIS program in Ethiopian tertiary educational institutions, may have brought about the challenges and competencies requirements in the libraries and information centers investigated. Reference [33] & [34] stated that Schools of library and information science have built course work or core curricula around these competencies (i.e., knowledge of information resources; information management; information access; information systems and technology; research and information policy), but Special Library Association (SLA) found that required coursework still focuses mostly on the areas that include information resources; information management and information access. They went further to observe that LIS schools in the late 1990s were very strong in teaching traditional skills, but strove to add required courses or content that provided knowledge in the areas of information systems and technology; research and information policy. Turning to new opportunities for students and how revised curricula prepare students to become much more “technologically astute than in the
past,” particularly in the areas of networking. Internet issues, design of information products and services, and electronic publishing. LIS graduates bring skills in technology and searching along with knowledge of personal liberty and privacy issues.

The report observed that the discipline of library and information science is one that requires attention, because, ‘information’ is the heart of any development (i.e., internationally, nationally, regionally, statewide or individually), an important and powerful commodity in any human community. It is also the basis for innovations and the resources for an informed citizenry; to understand the power of information and have access to it for decision making and solving the problems of their society. The role of libraries and information centers therefore cannot be overemphasized as to the insurance of the availability, accessibility of information resources as well as the administration and management of human and material resources in such environments. This is possible only with qualified professional personnel, with a client-centered perspective, with ability to design and adapt information products and services that are responsive to user needs, rather than trying to adapt users to the services.

C. LIS curriculum development at Jimma University

The reports of the JULS of 2005 studies, formed the bases for the LIS curriculum development by building on the models available in other Universities in the world with the like-named degrees, and holding on to the goals set by the AAU curriculum review initiative of 1990 in Ethiopia. The curriculum development was also spurred by the then ongoing academic restructuring process in tertiary institutions and at other educational levels in the country, which offered a golden opportunity to launch LIS program during the time of change in the academic preference. The need for trained manpower in libraries, information and resource centers was also very crucial because of the challenges and competencies that were experienced by the professionals at the organizations involved in the needs assessments studies. The challenges and competencies were translated into recommended coursework for the undergraduate curriculum development for LIS program at Jimma University and became realistic in the 2005/2006 academic year.

The curriculum provided not only a list of courses offered in a program, but it also gives information on content, purpose, method, time/duration, trainers and location or situation of a program or course - all of which are essential in a successful dispensation of manpower training and education. The categories of courses offered in the three year undergraduate degree program of Jimma University and in the Department of Information Science included core or major courses = 56 credits, Supportive Courses = 30 credits and Common Courses = 27 credits; that total was 113 credits. But in 2008, there was a curriculum review and harmonization workshop that re-categorized the courses as: core or major courses = 74 credits, Supportive Courses = 27 credits and Common Courses = 15 credits; the total credits now rose to 116 credits in the program and without any elective course in reference [35] & [36].

The curriculum review and harmonization workshop that was organized by the Ministry of Education in the country, took into cognizance the undergraduate professional degree program that is centered on how the artifacts of human knowledge are structured, organized, managed, evaluated, and made accessible in libraries and information centers. The universities offering the program in Ethiopia belief that Information Science and newly emerging related fields must be taught together since the technical, humanistic, social, and behavioral aspects of Information Science are interrelated. An understanding of users must guide information systems design, just as knowledge of technical possibilities and constraints must shape user services. The history, policy, and economic contexts of information creation and dissemination are also essential elements. The traditional concept of a library is being redefined from a place to access paper records or books to one that also houses the most advanced electronic resources, including the Internet, digital libraries, and remote access to a wide range of information sources. Consequently, librarians, often called information professionals, increasingly combine traditional duties with tasks involving quickly changing technology. Thus the new program houses necessary technology-based program in the University and consequently called Department of Information Science.


The supportive courses are 9, which include: Introduction to Computer Science, Introduction to Statistics, Discrete Mathematics, System Analysis and Design, Windows Programming, System Administration and Network Management, Data Communications and Networking, Fundamentals of Database and
Fundamentals of Programming. While the list of common courses are 5, and they include: Applied Mathematics, CBTP I, CBTP II, Sophomore English and General Psychology.

The underlying principles of the Community Based Education (CBE) subjects student activities to planned educational goals and objectives that are introduced very early in the educational program and continue throughout the educational process in reference [28]. The activities are viewed not as a peripheral or casual experience but as standard integral and continual educational process, that the students work during training as real work that is related to their educational needs and also forms part of the requirement for obtaining a degree. The strategies used to achieve the goals of the CBE in the Department of Information Science involves including in its curriculum design the three main program of CBE, which are expected to take 20% of the allotted time of the overall curricula. Such are: Community Based Training program (CBTP) and Community Based student Research Program (SRP).

The CBTP is an integrated institutional program which runs in phases from first year to graduation along with an in-built regular follow-up program. Each phase has specifically defined educational objectives. During each phase students as a group (10-12) are assigned to urban or semi-urban or rural communities with an approximate population of 5000-10,000. The objectives of the programme expects students to define the demographic, socio-economic, political and environmental aspects of a given community (determinants of socio-economic status); make community diagnosis and draw an action plan which would enable students to suggest appropriate intervention measures; organize intervention utilizing the concept components and strategies of community participation and multi-sectoral approach and plan and conduct problem-oriented research at the final year of their program and known as the student research program (SRP) in reference [37].

D. Bachelor’s of Science Degree in Information Science at Jimma University

The objectives of the Bachelor’s of Science degree in Information Science program; as it is currently being known at Jimma University provides professional education in librarianship and information specialization for a wide variety of service and management careers in libraries, information agencies, the information industry, and in business, government establishments, research, and similar environments where information is a vital resource. The curriculum is based on Library and Information Science discipline, emphasizing the essential professional knowledge, professional skills, and professional attitude needed by beginning professionals in this field. The Bachelor of Science Degree in Information Science is aimed at producing new graduates to satisfy the scarce skilled human power of the country and pay a concern to insufficient emphasis on information resource centers, services and its sciences, which would have played a great role in the country’s academic revolution. The challenge also, is to both broaden horizons and to sharpen skills that will be important as the student matures as a professional and alleviate the country’s skilled human resource in the sector.

The student is expected to have the knowledge and understanding in terms of general and specific subjects that can serve as the foundation for library and information services; qualified with the knowledge of various types of information resources, systems and services; qualified with the knowledge of theories, principles, processes and techniques of organization, storage, retrieval, dissemination and utilization of all forms of information; qualified with the knowledge of theories, practices and principles of research methods and evaluation, information systems' analysis, design, development and management; qualified with the knowledge of designing, programming, implementing and evaluation of various information systems and multimedia resources including the Internet; qualified with the knowledge of computers and communication systems, including, network design, development, implementation and management; qualified with the basic principles of ICTs in information processing techniques.

The major skills and competencies of the graduates profiles include: analyzing, designing, developing, implementing and managing ICT based information systems, services and solutions (i.e. the organization and retrieval of information resources); generating and producing tangible and useable information services and products; manage the different types of libraries that include University, Special or Research, Public, Government, College, School, Private, Information resource centers and Agencies or System development projects; provide information system/technology consultancy services; create and develop practical projects related to information resources and services.

The Bachelor of Science degree in Information Science is with out a minor or elective course. It is designed to prepare its graduates for a variety of careers in information activities, including information management, electronic information access and retrieval, community information resource centers, information architecture, database design and implementation, web design and implementation, networking and multimedia support, computing electronic information resources and information consulting.

The undergraduate professional degree program profile centers on how the artifacts of human knowledge are structured, organized, managed, evaluated, and made accessible. The university believes that Information Science and newly emerging related fields must be taught together since the technical, humanistic, social, and behavioral aspects of Information Science are interrelated. An understanding of users must guide information systems design, just as knowledge of technical possibilities and constraints must shape user services. The history, policy, and economic contexts of information creation and dissemination are also essential.
elements. The curriculum of Information Science program is organized in the context of library and information science; human-interaction; information generation, information organization, information access and information dissemination. The program offers basic general knowledge of the field of Information Science with opportunities to specialize in particular areas of the field in preparation for a variety of career opportunities/outcomes. Some career examples for the graduates with the degree includes: information specialist/expert; information broker; information retrieval specialist; information subject specialist (i.e., curator and archivist); knowledge manager/organizer; librarian (virtual librarian or web librarian); manager of information resource centers and organizations; school resource media specialist; teacher/lecturer/instructor; information scientist, etc.

The general teaching and learning methods as well as the materials or resources include lectures, laboratory works, tutorials and practical exercises, reading assignments and term papers, computer programming, application projects; seminars; demonstration and discussions; research and report writing are the teaching methods or strategies. While the teaching materials and resources are computer hardware and software resources, laboratories with local area network and online access facilities, bibliographic resources with appropriate information resources and Information retrieval tools, laboratory and office rooms equipped with appropriate ICT resources and facilities. The available resources are: four information technology laboratories with computers that provide access to a wide range of software including: word processing, spreadsheet, presentation and illustration graphics, database and text base management, authoring tools, web browsers and web page design software. The multimedia and printed media laboratories are being anticipated with digital cameras, videodisk players, CD-ROM burners, scanners, and digital sound, video editing software with printed resources. Reference materials are included in the curriculum document after each course description prepared for staff use.

Assessment methods dictate how to ensure whether the desired academic performance is achieved or not. The teaching and learning strategies which are mentioned in the earlier section have one or more corresponding assessment techniques. These techniques also are used to evaluate the level of achievements of a student at subject knowledge and understanding, intellectual skill and transferable skill that include Knowledge and Understanding involving written exam (mid and final); continuous assessment (quiz, assignment, class activity); intellectual skills (project and practicum), reporting quality (laboratory, practicum and project); presentation and seminar (communication skill, professional judgment, self confidence and self and peer evaluation) and transferable skills. Whereas, quality assurance is assured of through comprehensive examinations of teaching methods; tracers studies; suggestions and comments of the graduates; standardization of course offerings through preparation of general course outlines, exam contents, and external audit; continuous assessment of the program; and working with the stakeholders to assess graduates' performance.

V. Conclusion

Library and information science program at Jimma University passed through the fundamental principles of curriculum development; by identifying, considering and recognizing the needs of stakeholders’ nation wide through conducting needs assessments researches that their outcomes informed the launching of the program. The review did not only highlight the need for the undergraduate program and for the curriculum development in LIS to be all inclusive of the list of courses or modules offered in the program, but also gave information on content, purpose, method, duration, trainers and locations of the program. The paper went further to point out how the undergraduate professional degree program is centered on how the artifacts of human knowledge are structured, organized, managed, evaluated, and made accessible in libraries and information centers and why universities offering the program in Ethiopia believed that Information Science and newly emerging related fields like information systems and design must be taught together since the technical, humanistic, social, and behavioral aspects of Information Science are interrelated. The paper finally observed how the LIS curriculum built into it the knowledge of technical possibilities and constraints, which shaped users services as well as the redefinition of the traditional concept of library and information centers that were transformed from places to access paper records, books or artifacts to one that also houses the most advanced electronic resources, including the Internet, digital collections and remote access to a wide range of information sources.

References
