DEVELOPING DISTANCE EDUCATION AMONG THE INFORMATION PROFESSIONALS OF BANGLADESH: A MODEL PLAN

Submitted by:

Exam Roll: 2525

Reg. No: Ha- 6750

Session: 2009-10

Department of Information Science and Library Management

University of Dhaka

December, 2014

DEDICATED TO MY DECEASED FATHER

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PREFACE

The main objectives of the thesis "Developing Distance Education among the Information Professionals of Bangladesh: A Model Plan" is to fulfill the partial requirements for the course MISLM- 508 of the Masters Degree in Information Science and Library Management. The researcher believes that every research work is inevitably the result of the collaboration of the many great helpers. Otherwise, continuing alone with a gigantic mass of scattered materials and on the subject and their presentation in a form most coherent and consistent can outbalance the patience of a feeble mind as him. All available papers, relevant documents and journals have been minutely scanned through.

The present study has been discussed under eight broad chapters. The study discuss the methodology, scope & objectives adopted for collection, presentation & analysis of data for this study. It focuses the theoretical concepts of digital information resources and traces the historical growth and development, functions and implementation of distance education.

The main concern of the study was to develop a model plan for the information professionals of Bangladesh. The findings and model plan will help to develop new education system in LIS field.

Acknowledgement

It was a long journey & I had to depend on many people to complete the work from the beginning to the end. At the very first, I would like to express my greatest admiration to the supervisor of the research work, for his unyielding guidance, advice, constructive criticism, constant inspiration and support for completing the thesis. Without his direction and help, it would be impossible for me to finish this work properly.

I extend my gratitude to all my honorable teachers of the Dept. of Information Science and Library Management, University of Dhaka, for giving me valuable suggestions and providing necessary information for the work.

For collect important facts, I had to depend on some libraries' personnel. I am grateful to them. They provided me necessary information & extend all possible help for this work.

I am very much grateful to my class mates and my elder brother-sisters for their help. They did a lot for me. Gave me moral support, provided necessary information, and gave technical support.

Above all, I am deeply grateful to Almighty God. HIS mercy and blessing have empowered me throughout my life. All praise is due to God for his blessings.

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LIST OF ABBREVIATIONS

Terms used into this thesis:

BD: Bangladesh

BALID: Bangladesh Association of Librarians , Information Scientists and Documentalists.

BOU: Bangladesh Open University

DE: Distance Education

E-LEARNING: Electronic Learning

ISLM: Information Science and Library Management

LAB: Library Association of Bangladesh

LIS: Library and Information Science

Terms used in Information Science and Library Management

A

ABSTRACT: (1) A short summary of an ARTICLE in a scholarly JOURNAL. It usually appears at the beginning of the article.

AGGREGATORS: Vendors of databases.

ALMANAC: A publication that provides data, facts, figures, statistics and tables for different subjects.

ALERTS: A research profile/strategy that you may preset to have table of contents or lists of article citations e-mailed directly to you.

ARCHIVE: A non-circulating collection preserved for historical purposes. Materials are in a variety of formats including rare books, manuscripts, personal papers, organizational records, photographs, films, posters, and memorabilia.

ARTICLE: A (brief) essay or research report on a subject. Articles can appear in MAGAZINEs, JOURNALs, newspapers, full text online databases, or other sources such as encyclopedias.
ASK A LIBRARIAN 24/7: The choices of reference services from the BC Libraries that include the ability to receive help from a librarian via live, online chat from your office, home, or dorm room.
ATLAS: A bound volume of maps, charts, plates or tables illustrating any subject.
AUTHOR : The writer of a book or article. Usually this is a person (or several people), but it can also be a government agency, a symposium, a company, or other group that does not necessarily give the name(s) of the people who actually wrote the work. Such an author is referred to as a **Corporate Author**. Examples of corporate authors are: American Chemical Society, U.S. Department of Commerce, or Boston College.

B

BAR CODE: A small white label with closely spaced black stripes that can be read by a computer. Bar codes on books and your EagleOne Card are used to CHARGE OUT books from the library.
BIBLIOGRAPHY: (1) A group of CITATIONS used to research a topic. These are gathered together at the end of the article, book, or paper, usually arranged alphabetically by AUTHOR. (2) A publication that consists only of a list of books, ARTICLEs and other works on a particular topic. Sometimes bibliographies are annotated, that is, they include brief ABSTRACTS summarizing the important features of the works. Bibliographies of both types can be very valuable in locating information on a subject.
BIOGRAPHY: A book or an article about a person.
BLOG: An online discussion forum.
BOSTON LIBRARY CONSORTIUM: The Boston Library Consortium, BLC, is a cooperative association composed of sixteen academic and research libraries. The Consortium allows BLC community members access to the catalogs and collections of the member libraries.
BOUND PERIODICAL: Several consecutive issues of a JOURNAL, MAGAZINE or newspaper, are placed together between two hardcovers so they resemble a book. These may be shelved with the print collection, in the stacks.

C

CALL NUMBER: The unique group of letters and numbers given to each item in the library according to its subject matter. A label with the call number is usually located on the spine or cover of the item and indicates where the item is shelved.
CD-ROM: Compact Disk Read-Only-Memory is computer software which can hold large amounts of data including images and sound.

CITATION: Basic information about a specific source of information. A citation for a book will include the Author, Title, and Place of publication, Publisher, and Year of publication. A citation for an article in the Periodical will add the title of the periodical, volume number, pages and date. A bibliography is a group of citations.
CITATION STYLES: A particular method of documenting references. Some disciplines or academic departments require writers to use a specific style such as the Modern Language Association or American Psychological Association. There are handbooks for specific styles at the Reference Desk.
CONFERENCE PAPERS / PROCEEDINGS: Research presentations from conferences and professional meetings that are published.
CONTENT EVALUATION: Analysis of the content of an article, book, journal, website, film, or other media. Analysis may cover the relevancy of the material, the point of view of the author, the expertise of the author, depth of the material, intended audience, and location of the work within its genre.
COPYRIGHT: Protection of intellectual property for a certain period of time.
COVERAGE: The years, viewpoints, and content material covers.
CRITICAL THINKING: The mental processes of conceptualizing, applying, analyzing, synthesizing, and evaluating information.
CURRENCY: How up to date material is.

CURRENT AWARENESS or ALERTS: A research profile/strategy that you may pre-set to have table of contents or lists of article citations e-mailed directly to you.

D

DATABASE: A collection of **organized** information. The online catalog in a library is a database of the library's holdings. Expanded Academic ASAP and the General BusinessFile ASAP are examples of electronic databases.
DIRECTORY: An alphabetical or classified list, such as names and addresses.
DISSERTATIONS: Doctorate level dissertations are sources of original research, and they can usually be found at the university at which they were completed.

E

EDITION or REVISION: The copy or version of a title. Some titles are updated or revised on a periodic basis to include updated material.
ELECTRONIC JOURNAL: A journal, or version of a journal that is produced online.

ENCYCLOPEDIA: A book or multi-volume set containing articles on a range of subjects. An encyclopedia may be general and multidisciplinary, or subject specific and comprehensive.

F

FAIR USE: Legally sound use of or paid use of copyrighted material.
FULLTEXT: The complete work in either print, electronic, or microfilm format.

G

GIF: The Graphics Interchange Format (GIF) to view graphics or images on the web.
GOVERNMENT DOCUMENTS: Publications originating in, or printed with the authority of the U.S. Government, state and local governments, international government and international organizations. They include Internet publications, documents on CD-ROM, books, journals, pamphlets, and booklets. The legislation and court decisions of the United States are considered government documents, as are census publications, federal regulations, and Congressional reports. In O'Neill Library, government documents are shelved on the first floor, and many are also available at workstations in the library. You can use Quest and other printed and electronic databases to access government documents. The Law School and the Social Work libraries have substantial collections of government documents.

H

HOLDINGS: Often this term applies just to the issues of a NEWSPAPER, MAGAZINE or JOURNAL or another type of a PERIODICAL owned by Boston College Libraries, but it can also refer to all the materials (books, periodicals, government documents, media, electronic databases) Boston College Libraries have. In Quest, one can find out whether the libraries own a certain periodical title, what years they have, and the format in which the periodical title is found: microfilm, microfiche, or electronic format, or bound.
HOLMES ONE SEARCH: the search tool that unifies the Libraries' systems (library catalog, databases, digital collections, statistical data) into a single search interface.

I

INDEXES: Indexes provide subject, author, and/or title indexing to a particular set of periodicals and gives a full citation for each article. The citation includes the title of the periodical, date, volume, pages, as well as the author and title of the article. Some indexes include ABSTRACTS. Boston College Libraries have a wide array of indexes and abstracts in printed and electronic formats. From the Boston College Libraries Homepage, you can click on Online Databases to get a description of

electronic Indexes and Abstracts in your related area of research. Please ask a reference department staff for assistance.

INTERNET: The Internet is a huge network of hundreds of thousands of computers. The networks connect different types of computers and use a common set of protocols so that different types of computers can communicate with each other. Access to the resources of BC Libraries and a myriad of information scattered around the globe can be accessed through the Internet. Reference Librarians can provide you assistance with using the Internet for research and other library related projects. Other departments on campus such as the INFORMATION TECHNOLOGY can provide you with more Internet information

INTERLIBRARY LOAN: (ILL) is a service which will obtain a book or a copy of an ARTICLE for you from another library, if none of the Boston College Libraries owns the material. There usually is no charge for this service. Forms are available in the ILL Office on the main floor of O'Neill Library. Requests can also be sent electronically via the Libraries' web page.

J

JOURNAL: A publication that contains scholarly ARTICLES written either by professors, researchers, or experts in a subject area. An ABSTRACT and a BIBLIOGRAPHY usually appear with each ARTICLE.

K

KENNY COTTLE (K-C): Off-site location for Library collections located on the Newton campus. Items at this location can be retreived through Quest.

KEYWORDS: A list of terms that identify the main concepts in a text.

L

LIBRARY CATALOG: A log or register of all the owned by a particular library. Quest is the Boston College Libraries online catalog.

LIBRARY OF CONGRESS CLASSIFICATION SYSTEM: The method used by the Library of Congress to organize its materials. See example.

LISTSERV: An online e-mail mailing list of specific members.

M

MAGAZINE: A PERIODICAL intended for the general public rather than for scholars. Examples are Newsweek, Time, and Business Week.

MEDIA: A term we use for non-print and non-microform materials. These include videocassettes, laserdiscs, compact discs, audiocassettes and phonodiscs, 16mm films and CD-ROMs. The Media Center is on the second floor of the O'Neill Library.

MICROFORMS: Books, ARTICLES or other items that are printed in reduced scale on transparent plastic. Those that are in long rolls are

called microfilm, while those that are on small rectangular sheets are called microfiche. Each of these requires special machines to be viewed and copied.

N

NEW ENGLAND DEPOSIT LIBRARY (NEDL): Off-site location for Library collections. Items at this location can be retreived through Quest requests.

NEWTON RESOURCE CENTER: Off-site location for Library collections located on the Newton campus. Items at this location can be retreived through Quest requests.

P

PATENT: Legal protection of an invention giving the inventor exclusive rights to develop and sell the invention for profit for a given period of time.

PDF: A portable document format originally developed by Adobe for viewing files.

PERIODICAL: A publication that appears on a continuous and predictable schedule. Examples include newspapers (daily or weekly), MAGAZINEs, and JOURNALs.

PLAGIARISM: The B.C. Academic Catalog defines plagiarism as the "…deliberate act of taking the words, ideas, data, illustrative material, or statements of someone else, without full and proper acknowledgement, and presenting them as one's own."

POPULAR JOURNAL: Popular journals are not academically oriented. Examples are Vogue, People Magazine, Ebony, etc.

Q

QUEST: The Boston College Libraries catalog.

R

REFERENCE DESK: A place where librarians give you directions, answer your questions, and show you how to find and use materials. There is a reference desk in the main lobby of the library. It is staffed most hours that the Library is open.

RESEARCH GUIDE: A list of books, databases, and other resources for a specific subject. Each guide is compiled by a librarian with expertise in the subject.

RESERVE DESK: A place where professors put material required for class use. Because of the high usage of the material, the print versions are limited to circulating for two hours, or overnight in some cases. Many articles are being placed online, and can be searched in Quest in the Course Reserves Catalog.

REMOTE ACCESS: Communication by one or more users, devices, or workstations with a distant computer system.

S

SCHOLARLY JOURNAL: A scholarly journal includes articles that are research oriented, and are either written or reviewed by experts in the field. They always cite their sources, through the use of footnotes or bibliographies. Some scholarly journals are published by professional organizations, such as JAMA, the Journal of the American Medical Association.
SERIAL: Publications that are issued in successive parts, usually at regular intervals. Examples include PERIODICALs, JOURNALs, MAGAZINEs, newspapers, annual reports, annual reviews, and some conference proceedings.
SPECIAL COLLECTIONS: A research collection of note in a specialized subject area.
STACKS: A series of bookcases or sections of shelving arranged in rows or ranges to hold the library's books, PERIODICALs, GOVERNMENT DOCUMENTS, etc. At O'Neill Library the reference shelves and current PERIODICAL shelves are on the third floor. At Boston College, as in most American libraries, the STACKS are "open," that is, you may retrieve books directly from the STACKS. You do not need to ask a librarian to get the books for you.
STACKS may also designate a section of the library where the principal circulating book collection is kept. At O'Neill Library the older or bound PERIODICALs are also kept in these stacks. Refer to the library map for the location of the STACKS by subject CALL NUMBERS.
SUBJECT HEADINGS (Library of Congress): Terms used by the Library of Congress to divide knowledge into related subject areas, and by libraries to arrange books on the shelves. These terms are published in four large red volumes, often called "LCSH." Copies are located at the REFERENCE DESK. These terms are used to perform a "subject" search in QUEST, WorldCat and some other databases.
SUBJECT LIBRARIANS: Subject Librarians are librarians who specialize in specific subject areas and disciplines. They are responsible for collecting materials in their subject areas, and for providing in depth consultations to researchers.

T

THESAURUS: A "controlled vocabulary" or collection of synonyms, related terms, narrower terms, broader terms that convey a given meaning.
TRADEMARK: A legal protection that helps businesses distinguish their products and services from one another.

U

UNIFORM RESOURCE LOCATOR (URL): A unique address for locating resources on the INTERNET, such as files, newsgroups, web sites and each page of a web site. ***Example:*** *http://www.bc.edu/libraries*

V

VENN DIAGRAM: An illustration using circles that stand alone or overlap to show logical relationships between concepts or ideas.

W

WEB 2.0: The Social Networking phenomenon (FaceBook, IM, Blogs UTube, FLICKR, etc., etc.) are referred to as Web 2.0 generation.

CHAPTER -1

INTRODUCTION

Distance education has gained popularity all over the world as a means of extending continuing education to all people, particularly professionals. It has benefited from the rapid advances in electronic telecommunications in the 1980's and early 1990's. New communication technologies enable learning to take place beyond the classroom. Numbers of colleges, universities and institutions offer courses via the distance education system. As a result, someone pursuing a degree or trying to keep pace with new developments in their profession can often study the required courses without needing to enroll in a conventional campus -based course.
[Source: Farhad Saba, 2009]

Distance education emerged in response to the need of providing access to those who would otherwise not be able to participate in face-to-face courses. It encompasses those programs that allow the learner and instructor to be physically apart during the learning process and maintain communication in a variety of ways. It has evolved from correspondence schools to delivery mechanisms such as independent study, computer-based instruction, computer-assisted instruction, video courses, videoconferencing, Web-based instruction, and online learning.
[Source: Bazlur Rashid, 2006]

There are many people are engaged in information professions. But they are semi-professional or non professionals. Recently, the Government of Bangladesh has implements new rules in Library discipline. Those who are involved in library profession they must have a minimum level degree from a reputed university or institutions. That's why, now a days, they are bound to do a higher course to keep their job. It is quite difficult for all the professionals to come to class regularly, especially those who are from outside of

Dhaka city. There, a model has been developed for those professionals, who are interested to gain a professional degree.

Technology has played a key role in changing the dynamics of each delivery option over the years, as well as the pedagogy behind distance education. Technology is responsible for distorting the concept of distance between learner and instructor, and enabling learners to access education at any time and from any place.

1.1 Background

Correspondence education, the earliest version of distance education, developed in the mid-nineteenth century in Europe (Great Britain, France, Germany), and the United States, and spread swiftly. In 1840, an English educator, Sir Isaac Pitman, taught shorthand by mail. In the United States during the nineteenth century, there were several opportunities in adult education prior to the advent of university extension beyond campuses. In 1873, Anna Ticknow established a society that presented educational opportunities to women of all classes to study at home. Ticknow's Boston-based, volunteer endeavor provided correspondence instruction to more than 10,000 students over the course of 24 years. Communication, teaching and learning all took place through printed materials sent through the mail.

[Source: Mary J. Granger, 1999]

Until 1910, the medium of mail was the dominant delivery system, but new technologies, such as the lantern slide and motion picture, emerged to provide additional, visually-based options for correspondence study. The most promising new technology that emerged between 1910 and 1920 was instructional radio. The federal government granted over 202 radio broadcasting licenses between

1918 and 1946 to educational institutions; however, the technology failed to attract a large audience, and by 1940, only one college-level credit course was still offered through instructional radio. Perhaps instructional radio's greatest contribution to correspondence education was its natural evolvement to educational television in the mid-20th century.

[Source: Nasseh, 2006]

1.2 Objectives of the study

The objectives of a distance education program should not vary from the objectives of a face-to-face program. In addition, the mission would be same. Likewise, the admission process, course requirements, and faculty would remain the same.

There are some key objectives of this study. These are mention below:

- ✓ Prepare a model of Distance Education for Information Professionals in Bangladesh. Design a perfect model to deliver degrees to the LIS Professionals.
- ✓ Improve the area of LIS Education in Bangladesh.
- ✓ Interrelationship between the information and communication technologies and the subject matter of information studies
- ✓ The development of and the role of technology in an asynchronous system of learning for information professionals.
- ✓ Enrich the technical capacity of the librarians, or people who are related with Information Science, or Library Science.

1.3 Significance of the study

Through this study the information professionals who are already involve in profession can achieve their further degrees which are very important in their professional life. It will remove the curb of distance and time. Distance education will make the professionals more educated which will make enrich their skill & competency. They need not to come a long way for achieving a diploma, or a general degre**e.** They can achieve these degrees by Distance Learning model. That will remove the barrier among the information professionals in the job field, especially for them who have a less degree in Information Science.

1.4 Methodology

One of the most important parts of any scholarly work is Methodology. The success of the research work depends on the choosing the proper methodology. More than one methodology has used in this study for the betterment. Here used 'Case Study' method for creating a proper basement for developing distance education model. Semi structured questionnaire method has been applied to collect some important facts.

1.5 Research Design

1.5.1: Study Design

This was the typical part of the whole work. How the total study will be conducted, how that will be arranged etc have to be pre planned. A perfect study design is the 50% success of the research.

1.5.2: Searching and Browsing:

I conducted a thorough search for all studies through 'First Search' with the following keywords:

i. Distance and education,
ii. Distance and education and information professional,
iii. Distance and learning and information professional,
iv. Distance and teaching,
v. Distance and instruction,
vi. Online and education,
vii. Online and learning,
viii. Online and teaching,
ix. Online and instruction,
x. On-line and education,
xi. On -line and learning,
xii. On -line and teaching,
xiii. On -line and instruction,
xiv. Web-based and education,
xv. Web -based and learning,
xvi. Web based and teaching,
xvii. Web -based and instruction,
xviii. Virtual and education,
xix. Virtual and learning, virtual and teaching,
xx. Virtual and instruction.

1.5.2. Literature Review:

The study has been completed with a comprehensive literature review. The literature was in both format- hardcopy and the softcopy. Published and unpublished- both type of literature has been studied thoroughly. Various articles on Distance Education published from many countries in different times, has been

studied very attentively. All the related books and journals (both online & printed) have been reviewed to construct a strong basement of the work.

1.5.3. Sample Design

The area of covering for collecting information and suggestions librarians of renowned libraries has brought under study. And also, who are involved in teaching profession and prepare the curriculum for the Library and Information Science, has been interviewed with the structured questionnaire.

1.5.4. Case Study:

Case study is one of the most successive methods for research work. It helps to know about the real fact.
For this study, Bangladesh Open University (BOU) has been selected for the case study. And has successfully done it.

1.5.5. Data Collection

For getting solid information about what people think about distance education and what is the present status of distance education, data has been collected and analyzed. Data has been collected with the help of questionnaire from the librarians of selective libraries, teachers, faculty members, and some students who are involved with profession. And also a case study has conducted over this topic, at Bangladesh Open University (BOU).

1.5.6 Data Processing and analysis:

Case study has been conducted with some structured questionnaire. And the whole interview was recorded. More information has been collected from the prospectus, and the web site.

A questionnaire has been developed to collect data from some selective persons (Librarians, Teachers, and LIS Professionals).

1.5.7 Organization of the text:

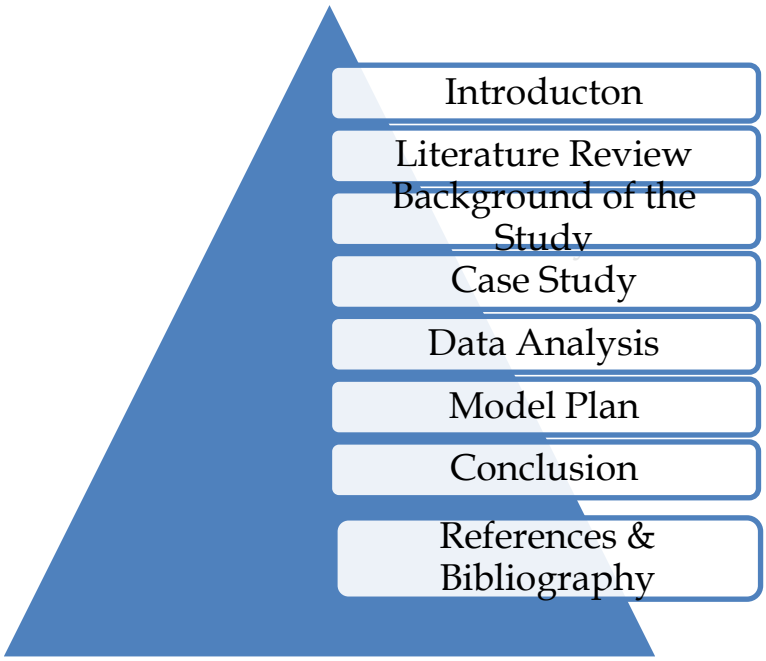


Fig 1.1 Organizational Structure of the study

The whole text of the theses has been arranged in the following broad categories:

Chapter 1 is owned for background study, objectives, and significance of the study, methodology, and study design.

Chapter Two is related with comprehensive Literature study, which is very much related to the theses.

Chapter Three is assigned for providing a complete background of the work.

Chapter Four is done on the basis of the case study, which is very important to this research.

Chapter five explains the outcomes of the questionnaire.

Chapter six is the core work of this whole studies. The Model Plan has been developed here.

Chapter seven gives conclusions to the study.
Chapter eight gives References.

1.5 Limitations of the study

The study has some limitations. These are:

a. The study will be limited to the Information Professionals who are having semi-professional degree or non-professional in Information Science and Library Management field.
b. The study is limited to model plan. Here, only current scenarios of distance education and what could be a model plan- that has been discussed.
c. The model is developed for ISLM department of Dhaka University only.

CHAPTER- 2
LITERATURE REVIEW

Literature Review is the core part of any research, or any other scholarly works. Literatures give a clear concept about the topic and help to frame the whole work. And also, make the researcher well informed about the previous works, which are essential for build a pure concept.

In this study, literature have been reviewed and arranged under the following parts:

2.1 Evolution of Distance Education:

2.2 Gradual Development

2.3 Current status all over the world

2.4 Current status in LIS

2.5 Future of Distance Education

At first, literature was collected with thorough search over the internet and libraries. And, in the second stage, the database was further examined based on the following criteria:

1. The article had to be published in a journal. The decision to include only journal articles was based on the concern of study quality.

2. The article must have had complete reference information (author, date, source, etc.).

3. The article had to include at least one evaluation study of distance education. The specific outcome measured was not limited.
4. The article must have had at least one comparison study on distance education and face-to-face education.

5. The article must have had some empirical data about the learning outcomes.

6. The article had to include enough statistical information for computing an effect size.

2.1 Evolution of Distance Education

It is found in the writing of **Shearer,** This theory was derived from the concept of "trans-action," which is considered by many scholars to be the most evolved level of inquiry, compared to self-action and inter-action (Dewey & Bentley, 1946), and the interplay among the environment, the individuals and the patterns of behaviors in a situation. Thus *transactional distance* is defined as the interplay of teachers and learners in environments that have the special characteristics of their being spatially separate from one another. In short, transactional distance is the extent of *psychological* separation between the learner and the instructor.

Cook & Lin stated that, in the education field, ubiquitous computing allows us to envision a classroom in which the teacher remains focused on his or her field of expertise while still utilizing technology to enhance student learning. Although technological tools used for ubiquitous learning can be numerous.

Crowe identified handheld computers as a key component of distance learning. Many researchers whose investigations involve handheld and mobile devices are referring to their research as ubiquitous learning. As the similar terms pervasive computing or context–aware computing emphasize.

Weiser (**1991**) stated, **"**The most profound technologies are those that disappear**".** He was the first scholar to define ubiquitous computing as an environment where the computer is integral but embedded into the background of daily life. Applying this concept to the education field, ubiquitous learning (u-learning) involves learning in an environment where "all students have access to a variety of digital devices and services, including computers connected to the Internet and mobile computing devices, whenever and wherever they need them"

Kukulska-Hulme & Traxler described, Mobile learning refers to the use of mobile or wireless devices for the purpose of learning while on the move. Typical examples of the devices used for mobile learning include cell phones, smartphones, palmtops, and handheld computers; tablet PCs, laptops, and personal media players can also fall within this scope. The first generation of truly portable information has been integrated with many functions in small, portable electronic devices. Recent innovations in program applications and social software using Web 2.0 technologies (e.g., blogs, wikis, Twitter, YouTube) or social networking sites (such as Facebook and MySpace) have made mobile devices more dynamic and pervasive and also promise more educational potential.

2.2 Gradual Development

Micheal Blakely has written that, distance education has the capacity to serve the many groups, including those with special needs, as well as the potential to solve a range of problems in lifelong learning programs.

Yoany Beldarrain has written that, current trends in the field of distance education indicate a shift in pedagogical perspectives and theoretical frameworks, with student interaction at the heart of learner-centered constructivist environments. Although emerging technologies offer a vast range of opportunities for promoting collaboration in both synchronous and asynchronous learning

environments, distance education programs around the globe face challenges that may limit or deter implementation of these technologies.

It is found in **Thomas J. Blakely's** article on distance education, although difference exist between distance education and face-to-face instruction, evidence suggests that distance education can make graduate study available to a large number of students and that is at least as effective as classroom instruction in terms of student learning.

Bransford explained in this way, technology-based learning has influenced several learning theories such as anchored instruction and situated cognition. These learning theories recognize that technology impacts social interaction, which in turn, affects the learning process. Situated learning theory proposes that real-life problem solving should be a collaborative task, empowering learners to become part of a learning community. Anchored instruction seeks to build problem-solving skills by anchoring instruction around a situation or problem.

Fulford and Zhang cautioned against modeling distance education courses after traditional lectures, but instead should include interaction as the foundation of effective distance education practices. Emerging technologies may accomplish the task of providing various types of asynchronous and synchronous interactions for different purposes, especially those tied to instructional strategies.

According to engagement theory, **Kearsley** said that collaborative efforts, project-based learning, and non-academic interactions, lead to engagement and authentic learning summons practitioners and researchers to identify how curriculum and instruction should be driving technology use, instead of the other way around. He also suggests revising instructional theories and practices as new technologies impact instruction.

Md. Tofazzal ISLAM and **Abu Sadeque Md. SELIM** have written, "The e-learning is widely used in most of the developed countries to promote distance education (DE) and life long learning. It can be defined as an innovative approach for delivering electronically mediated, well-designed, learner-centered, and interactive learning environments to anyone, anyplace, anytime by utilizing the internet and digital technologies in concern with instructional design principles (Anonymous 2003, Hedge and Hayward, 2004. Applications and processes of e-learning include web-based learning, computer-based learning, virtual classrooms, and digital collaboration, where contents is delivered *via* the internet, intranet/extranet, audio and/or video tape, satellite TV and CD-ROM"**.**

2.3 Current status all over the world

Goldman written into his article, by using notebook-sized computers, penbased interfaces, wireless networking, and customized software, teachers can conduct field-based experiences in which students are physically distributed across an environment, yet linked together by shared data, collaborative discussion, and pedagogical guidance. In classrooms with electronic walls, the notebook computer carried by each student group accepts pen-based data input and continuously updates the information collected by all groups. Results are displayed on multimedia databases, spreadsheets, and geographic information systems customized to that lesson's structure and are simultaneously available to all participants.

The National Institute of Multimedia Education, Japan stated in their annual paper, In recent years, distance education has emerged as one of the most feasible modes of instruction that aims at bridging many of the educational objectives and practices between the formal and the non-formal sector. For the last decade, distance education has attracted educators and policy makers as a new measure of educational provision. Especially in Asia and the Pacific, distance education institutions and/or programmes have developed rapidly

and played an important role. Despite its importance and wide scope of practice in many countries, not enough is known about distance education in this region.

Chris Dede wrote in his paper, the development of high performance computing and communications is creating new media, such as the World Wide Web and virtual realities. In turn, these new media enable new types of messages and experiences; for example, interpersonal interactions across network channels lead to the formation of virtual communities. The innovative kinds of pedagogy empowered by these emerging media, messages, and experiences make possible an evolution of synchronous, group, presentation-centered forms of distance education—which replicate traditional "teaching by telling" across barriers of distance and time—into an alternative instructional paradigm: distributed learning. In particular, advances in computer-supported collaborative learning, multimedia/hypermedia, and experiential simulation offer the potential to create shared "learning-through-doing environments" available anyplace, any time, on demand.

It is found in the **Godwin-Jones's** paper that emerging technologies provide opportunities for instructor–student as well as student–student real-time and/or time-delayed collaboration. Software companies are creating user-friendly applications that are an asset to business and educational settings alike. The first-generation Web tools, as many have called them, included email, chat rooms, and discussion boards, among others.

Farhad Saba stated that, The Historic growth in distance education, increasing costs in all sectors of education should give us pause, and we should become cognizant of challenges that are on the horizon. A promise of the application of information technology to education was to increase revenue, or at least decrease costs, as it has done in other enterprises. Since the dramatic growth of the field cost of education has increased.

2.4 Current status in LIS

Markowitz declared that, the important development of the information age, emphasis is on the need for further education, continuing education and lifelong education for the information professionals and those who have already been in the workforce. Distance learning is the most useful and cost-effective means of enhancing or updating information and library skills and qualifications. One of distance education's strengths is its ability to integrate diverse skills and professional backgrounds.

(Barron, 1991) said, Information professionals have been involved in distance education since 1888, when Melvil Dewey called on the library school at Albany, New York to develop correspondence courses for librarians in small and special libraries. Since then LIS schools have permitted the enrolment of part-time students, scheduled evening and weekend classes, summer courses, opportunities for intensive sessions, and have offered courses away from the home campus and other alternatives to a ''traditional'' classroom education.

Charles Williamson became interested in correspondence education in library science, recommending to the Carnegie Corporation in 1921 and 1923 that library schools adopt the correspondence method of instruction. He later recommended that the Carnegie Corporation fund the development of a school in New York City to develop correspondence study on a large scale and of high quality (Barron, 1996).
Numbers of colleges, universities and institutions offer courses via the distance education system. As a result, someone pursuing a degree or trying to keep pace with new developments in his or her profession can often study the required courses without needing to enroll in a conventional campus-based course.

Stoker thinks, this important development of the information age, emphasis is on the need for further education, continuing education and lifelong education for the information professionals and those who have already been in the workforce. Distance learning is the most useful and cost-effective means of enhancing or updating

information and library skills and qualifications and offers an ability to integrate diverse skills and professional backgrounds.

Muhammad Aslam Bhatt said that, Distance education has a unique role to play in Asia, where high university drop-out rates in conventional Higher Education, the need for outreach to the remote, rural poor, and the social barriers placed between women and participation in traditional education are notable features of social and educational life.

The Academic Library Association of Ohio (ALAO) prepare a proposal. This is, "The Distance Learning Interest Group (DLIG) supports and encourages librarians and others involved in Distance Learning initiatives to share their solutions for succeeding in the technology-driven environment of online learning. To that end, DLIG will recognize successful, innovative research and/or projects in Distance Learning by annually providing a research/project and presentation grant to an innovator in the field--a Distance Learning Visionary."

2.5 Future of Distance Education

Dede & Lewis described, the global marketplace and the communications and entertainment industries are driving the rapid evolution of high performance computing and communications. Regional, national, and global information infrastructures are developing that enhance our abilities to sense and act and learn across barriers of distance and time. How information is created, delivered, and used in business, government and society is swiftly changing. To successfully prepare students as workers and citizens, educators must incorporate into the curriculum experiences with creating and utilizing new forms of expression, such as multimedia.

Chutima Sacchanand has clearly stated that, distance education is now recognized throughout the world as a viable alternative to campus-based education and remains competent in today's digital era and knowledge society. Distance education in library and information science, which started in 1988, has grown rapidly to a

wider audience in Asia and the Pacific region. The number of countries and institutions offering library and information science distance education has increased and various levels of degree programs and short courses are offered. It expands the reach of the classroom by using various technologies to deliver university resources and services to off-campus sites, and by transmitting courses into the workplace, thus enabling informational professionals to view class lectures in the comfort of their homes and offices. Library and information science distance education comes as an integral part for information professionals of not only "Education for All" but also "Education for
Tomorrow ."

Chris Dede thinks, synchronous, group, presentation-centered forms of distance education are similar to traditional classroom instruction. In contrast, emerging forms of distributed learning are based both on shifts in what learners need to be prepared for the future and on new capabilities in the pedagogical repertoire of teachers. “Learning-through-doing” involves participating in an individualized sequence of presentational and “constructivist” (guided learning-by-doing) experiences that are delivered on demand in a real world problem solving context.

About the development, **Yoany Beldarrain** said that proactive leadership can minimize the limitations imposed by administrative control, lack of infrastructure, or lack government support. Distance educators must stay on course, examining how emerging technologies can enhance distance education programs, regardless of the delivery method. Solutions for existing challenges will be found as long as distance educators base their decisions on the best interests of the students. These may include flexible learning environments, apprenticeship, and role modifications. New models of learning may allow the instructor as well as the learner to become involved in the course design as well as the decision-making process.

McGrawth give that statement, **"**One of the reasons that distance education has become and remained so prevalent, in particular for higher education, is that various studies have validated its practice revealing no significant differences in learning outcomes between traditional and distance students.**"**

He also give this reference, **"**A recent study, published in 2005, found this to be the case when comparing students who were delivered the exact same content via one of three setups: in a traditional classroom, via online course management software, and through a CD-ROM, respectively.**"**

From the point of view of **Editorial Projects in Education Research Center**, a growing trend in distance learning uses the Web to deliver online curricula, an approach also known as "virtual classrooms." Virtual-classroom curriculum materials tend to be regular classroom materials formatted for use on the Internet. Virtual classrooms are beneficial for schools that are not able to provide a wide range of electives on their own

CHAPTER 3

BACKGROUND OF THE STUDY

3.1 Bangladesh Perspective

Bangladesh, officially the People's Republic of Bangladesh, is a country in South Asia. It is bordered by India to its west, north and east; Burma to its southeast and separated from Nepal and Bhutan by the Chicken's Neck corridor. To its south, it faces the Bay of Bengal. Bangladesh is the world's eighth-most populous country, with over 160 million people, and among the most densely populated countries. It forms part of the ethno-linguistic region of Bengal, along with the neighboring Indian states of West Bengal and Tripura.

3.1.1 Economy

Bangladesh is a developing nation and a rapidly growing market-based economy. It is one of the world's leading exporters of textiles and garments, as well as fish, seafood and jute, and has globally competitive emerging industries in shipbuilding, life sciences and technology. The country also has a strong social enterprise sector and is the birthplace of microfinance.

3.1.2 Education

Bangladesh has a low literacy rate, estimated at 61.3% for males and 52.2% for females in 2010.

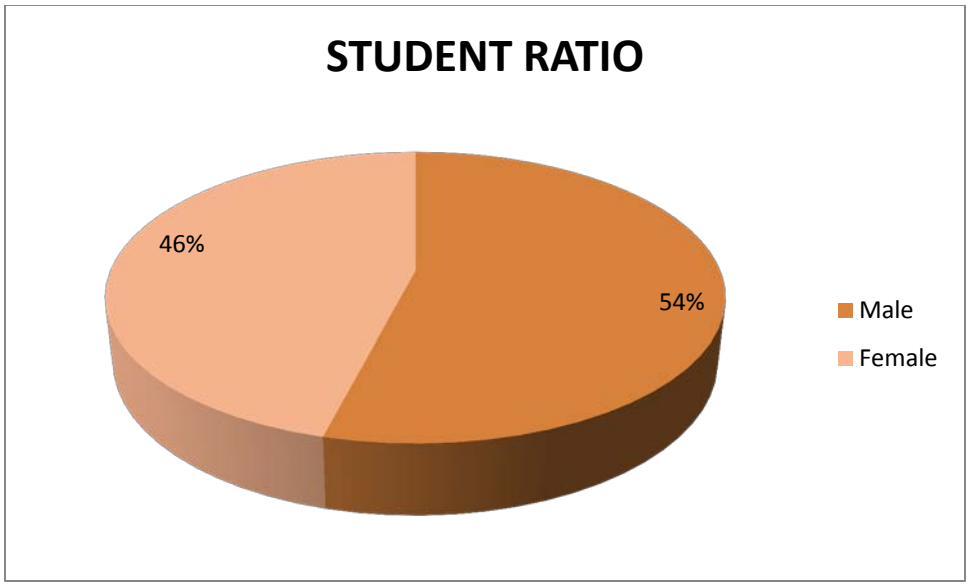


Fig 3.1: Student ratio in Bangladesh

The educational system in Bangladesh is three-tiered and highly subsidized. The government of Bangladesh operates many schools in the primary, secondary, and higher secondary levels. It also subsidies parts of the funding for many private schools. In the tertiary education sector, the government also funds more than 15 state universities through the University Grants Commission.

3.2 Current status of Library

Library development in Bangladesh is closely related to the library movement in the Indian sub-continent. Libraries in India can be traced from the history of ancient Indian libraries furnished by the travel diary of the famous Chinese traveler Fa-Hien, who visited India in 399 AD. The British settled and stayed on for nearly two hundred years, initially for trading. They subsequently started to establish academic institutions and libraries on a small scale.

3.2.1 Library introduction in Bangladesh

Library education in Bangladesh has received very little attention, although libraries need dynamic people with the proper education to achieve their goals. Library science programs have not conducted surveys to determine the needs of the country's libraries and information centers, to determine the qualifications needed to staff such institutions.

3.2.2 Types of Libraries in Bangladesh

Basically we can see there are four types of libraries. These are:

I. National Library:
II. Public Library
III. Academic Library
IV. Specialized Library

3.2.3 Library Education

Library and Information Science (LIS) includes academic studies on how library resources are used and how people interact with library systems. The organization of knowledge for efficient retrieval of relevant information is also a major research goal of library education

3.2.4 Development of Library Education Systems in Bangladesh

Bangladesh has had a slow and steady growth of library education, which started before independence.

The first part of the 20th century may be termed the "dark age" for education and training for librarianship in Bangladesh. There were

libraries but not the methods and techniques of librarianship for systematic services by professionally qualified manpower. The concept of librarianship and the necessity of library science education were felt intensely. The awareness of urgent necessity was discernable in the learned community, but there was a lack of leadership and momentum. Bangladesh had more time to wait even after the partition of India in 1947. No major and consistent steps were taken until 1952.

[Source: Tofazzal, 2002]

3.3 The Gradual Development

3.3.1 Gradual Development of LIS in Bangladesh:

Phase	Time Period	Gradual Development
1st Phase	1951 - 1960	Librarianship training started with the first three-month certificate course in librarianship at the central library of the University of Dhaka in 1952. The university made provision for the institution of certificate course in librarianship under the Faculty of Arts. The course started with the assistance of Fulbright scholars and has been called "Fulbright Course in Librarianship".
2nd Phase	1961 - 1970	A one-year Masters of Arts (MA) course in library science was formulated at the University of Dhaka in 1962, for students who had completed the PGD. Beginning in 1962-63 with the services of distinguished American, British and Bangladeshi librarians, the MA course started on a more extensive scale.

3rd Phase	1971 - 1980	In 1974-75, the University of Dhaka approved a two-year Master of Philosophy (MPhil) program (University of Dhaka, 1974), beginning with the 1975-76 session. At the end of 1975-76, the University of Dhaka endorsed a two-year MA course, called a "Master of Arts in Library Science."
4th Phase	1981 - 1990	During 1987-88, a three-year Bachelor of Arts (BA) with honors in library and information science began at the University of Dhaka. The department was re-named "Library and Information Science," to keep pace with the changes in information technology.
5th Phase	1991 - 2000	Library and information science was introduced as a subsidiary subject in degree (pass) and honors level for affiliated colleges beginning in 1991-92 (University of Dhaka, 1990). The university started the two-year MA course in 1994-95. The one-year MA course was restricted to library and information science graduate students. In 1997-98, to align itself with the western education system, the university initiated a four-year BA (honours) course in information science and library management to replace the three-year BA. In 1999-2000 the four-year BA was declared the professional degree, to take effect in 1997-98
6th Phase	2001 -	From 2001-02, the department of University of Dhaka had the new name "Information Science and Library Management". From that same session, the University of Rajshahi did away with the PGD course.

Table 3.1: Phase wise Development in LIS Field

[Source: A.I.M. Jakaria Rahman, 2008]

3.3.2 LIS Courses offered by the institutions

Name of University/Institute, Location, Year of establishment	Certificate Course 1 (6 months)	Post Graduate Diploma 2 (1 year)	BA (Pass) Course (3 years)	BA/ BSS (Hons.) (4 years)	MA/ MSS (1 years)	MA (2 years)	MA (Evening) (4 semester/ 2years)	M. Phil. (2 years)	Ph. D. (2-3 years)
Bangladesh College of Technology & Education (BCTE), Rajshahi. 2000	V	v	-	-	-	-	-	-	-
Bangladesh South West Model Institute (BSWMI), Jessore. 2004	-	V	-	-	-	-	-	-	-
Bogra Library Science College (BLSC), Bogra. 2004	-	V	-	-	-	-	-	-	-
Institute for Library and Information Management (ILIM), Dhanmondi, Dhaka . 1997	V	V	-	-	-	-	-	-	-
Institute for Library and Information	V	V	-	-	-	-	-	-	-

Science (ILIS), Nilkhet, Dhaka . 2000									
Institute for Library and Information Studies (ILIS),, Rajshahi. 2000	V	V	-	-	-	-	-	-	-
Institute of Education, Library and Managemen t (IELAM), Khulna. 2000	V	V	-	-	-	-	-	-	-
Institute of Library and Information Science (ILIS),, Mymensigh. 2001	V	V	-	-	-	-	-	-	-
Institute of Library and Information Science (ILIS), Chittagong . 2002	V	V	-	-	-	-	-	-	-
Institute of Library and Information	V	V	-	-	-	-	-	-	-

Technology (ILIT), Chittagong . 2002									
Institution of Library, Arts, Commerce and Science (ILACS), Khulna . 1999	V	v	-	-	-	-	-	-	-
Library and Information Science Institution (LISI), Nuria, Barisal, 2002	V	V	-	-	-	-	-	-	-
Pabna Al-Amana Ideal Library and Information Science College, Pabna. 2004	-	V	-	-	-	-	-	-	-
S. B. Science and Technology College, Bogra. 2002	V	V	-	-	-	-	-	-	-
Zia Education Development Institute, Choumohony, Noakhali. 2005	-	V	-	-	-	-	-	-	-

Darul Ihsan University, Dhaka 1993	-	V	-	-	-	v	-	-	-
University of Dhaka, Dhaka . 1921	-	-	-	V	v	-	v	v	V
International Islamic University of Chittagaong, Chittagong . 1995	-	V	-	-	-	-	-	-	-
University of Rajshahi, Rajshahi. 1953	-	-	-	V	v	-	-	v	V
Royal University of Bangladesh, Dhaka . 2002	-	-	-	-	-	v	-	-	-
University of Science & Technology of Chittagong (USTC), Chittagong . 1992	V	-	-	-	-	-	-	-	-
Barmi Degree College, Shreepur, Gazipur	-	-	V	-	-	-	-	-	-
Basail Emdad - Hamida	-	-	V	-	-	-	-	-	-

College, Tangail									
Barhatta College, Netrokona	-	-	V	-	-	-	-	-	-
Fulbaria College, Mymensigh	-	-	V	-	-	-	-	-	-
Joypara Degree College, Dohar, Dhaka	-	-	V	-	-	-	-	-	-
Kalihati Degree College, Tangail	-	-	V	-	-	-	-	-	-
Lalmatia Girls College, Dhaka	-	-	v	V	-	v	-	-	-
Sathkhira Degree College, Sathkhira	-	-	V	-	-	-	-	-	-
Sufia Mohila College, Madaripur	-	-	V	-	-	-	-	-	-
Total:	12	17	09	03	02	03	01	02	02

Table 3.2: Library education programs offered

Source: Brochure 2010 of Library Association of Bangladesh; Annual reports of National University and present survey.

3.3.3 Current State of Library Education

Library education in Bangladesh may be categorized as follows:

Library education in Bangladesh is offered at several levels, including certificate, master's, and doctorate. There are at least three (MA, MSS, MSc) types of master's degree programs. Duration of courses ranges from six months to four years. The same certificate, diploma, or degree course name, and name of awarding certificate or degree can vary among universities and institutions. Numbers of credits can also vary.

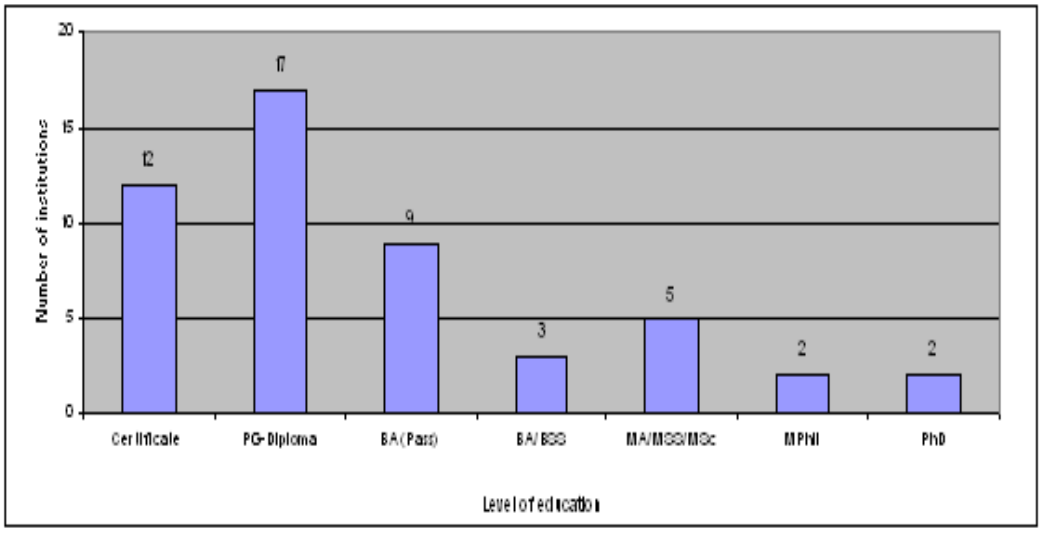


Figure 3.2: Library education programs offered by number of institutions

Source: Brochure 2010 of Library Association of Bangladesh; Annual reports of National University and present survey.

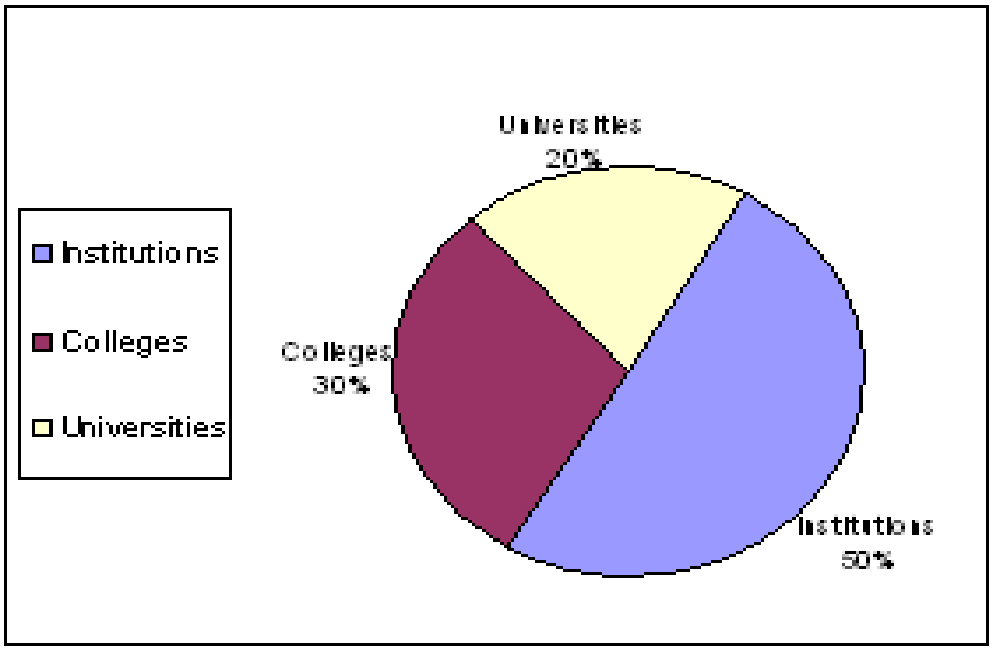


Figure 3.3: Institutions involved in library education

Source: Brochure 2010 of Library Association of Bangladesh; Annual reports of National University and present survey.

3.4 Library Movements

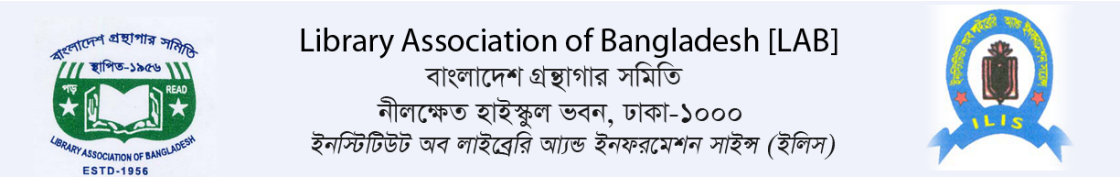
3.4.1 Professional Associations

LAB and BALID are not working to popularize the profession and library education in the country. Many library science graduates do not join these professional associations, because there is no obligation to belong to them in order to get a library-related job.

Both associations should be more active in the development of library education. They must take a leading role in and outside the country. Members of both associations should choose dynamic personalities as their executives and leaders. Having elected officers from professional members, who work for the association in "spare" time, is not sufficient. There is a need to appoint a fulltime paid

executive director. Membership in a library association should be required for a library graduate to get a library job. Library and information centers must stop the recruitment of non-professionals.

3.4.1.1 Library Association of Bangladesh



Mission and Vision

The mission of the Library Association of Bangladesh is to provide leadership for the development, promotion, and improvement of library and information services and the profession of librarianship in order to enhance learning and ensure access to information for all.

3.4.1.2 Bangladesh Association of Librarians, Information Scientist and Documentalists (BALID)

The mission of Bangladesh Association of Librarians, Information Scientists and Documentalist (BALID) is to modernize the library and information profession and to uphold the interest of the professionals in Bangladesh. It is the only full-fledged professional body in Bangladesh in the field of library and information management. The association was founded on 23 January 1986 with the initiative of a group of young library professionals and formed a convening committee. BALID believes that access to information; intellectual freedom and knowledge based society are the key

components of development.

3.5 Distance Education In Bangladesh

3.5.1 Historical Background

The roots in the history of open and distance learning in Bangladesh (the then East Pakistan) date back to 1956 when the then Education directorate distributed 200 radio receivers to the educational institutions, which in run, led to establishment of a Audio-visual cell and later Audio-visual Education Center (AVEC) in 1962. Upon creation of an independent Bangladesh in 1972, a pilot project 'School Broadcasting Program (SBP)' was undertaken during 1978-1980, which was later merged with AVEC to establish National Institute of Educational Media and Technology (NIEMT). The NIEMT was later transformed into Bangladesh Institute of Distance Education (BIDE) in 1985. Thereafter, Bangladesh Open University (BOU) was established in 1992 with major financing of Asian Development Bank (ADB). BOU started its operations in 1995 and the BIDE was merged with it.

[**Source**: Md. Tofazzal Islam, 2008]

Time	Description
1962	The first audio-visual cell, and later, an audio-visual education centre was set up
1980	A school-broadcasting program was launched as a pilot project.
1983	These two distance learning institutions were merged into an organization, known as the National Institute of Education Media and Technology (NIEMT).
1985	The Bangladesh Institute of Distance Education (BIDE) was set up.
1987	A project was undertaken with financial support from

	the British Overseas Development Agency (ODA) to assess the feasibility of setting up of such as British Open University.
1989	With the help of experts from Britain, the team drew up a plan for an open university. Simultaneously, at the invitation of the government of Bangladesh, a mission came from the Asian Development Bank.
1992	The Bangladesh Open University (BOU) was established by an Act of Parliament. BIDE was merged with it.

Table 3.3: Gradual Development of Distance Education in Bangladesh

[Source: Banglapedia]

3.5.2 Need for Distance Education in Bangladesh

The case for open and distance education in Bangladesh is an important issue for several pressing reasons:

1. The vast majority of the people live below poverty line. They are unable to attend the urban based institutions and thus remain deprived of higher education despite their superior merit.

2. Those who join work force without completing their studies due to family commitments are unable to work for studies and also to find a place in the traditional institutions of higher learning, even if some of them have strong desire to higher studies.

3. The opportunity for higher education, the places are extremely limited in Bangladesh. Therefore, even those who can afford to finance their studies find it difficult to get admitted to any universities.

4. The tradition of childhood and early marriage in the country deprives the female population from higher education. Besides, there are some other usual factors like physical disabilities, remoteness of localities, higher tuition fees in most private universities, and so on.

These are the reasons for why millions of people are deprived from higher education in Bangladesh despite their keen

interest and eligibilities. Open and distance education can open up the opportunities for higher education for such a vast under-privileged population.

3.5.3 Socio-Economic Conditions and ICT Infrastructure of Bangladesh

Bangladesh is one of the developing countries in the world with a growth rate of GDP around 5.6%. Like other less developed countries, ICTs infrastructure in Bangladesh is very weak. Computer, the important tool for communication and e-learning was first introduced to Bangladesh by the Atomic Energy Commission in 1964. To be followed later in the 70s by its use in the financial sector. Personal Computers gained popularity in the early 1990s when they became more user-friendly and affordable, but the real boost came in 1998 when the Government exempted computers and ICT accessories from taxes, a move that coincided with substantial price reductions in the global market. The consumption of ICT in Bangladesh is rapidly increasing both in public and private sectors. Almost all leading universities have departments of computer science and engineering, and thus 6000 new graduates are joining in ICT in the country

3.6 Gradual Development of Distance Education All Over The World

Year	Description
Mid 19th Century	The earliest version of distance education, developed in Europe (Great Britain, France, Germany), and the United States, and spread swiftly
1840	Sir Isaac Pitman, taught shorthand by mail (Encarta).
1858	the External Programme was chartered by Queen

	Victoria, making the University of London the first university to offer distance learning degrees to students
1858	The University of London was the first university to offer distance learning degrees, establishing its External Programme
1873	Anna Ticknow established a society that presented educational opportunities to women of all classes to study at home (Nasseh).
1883	Cornell University attempted to establish a Correspondence University based out of its campus. It did not succeed.
1910	the medium of mail was the dominant delivery system, but new technologies, such as the lantern slide and motion picture, emerged to provide additional, visually-based options for correspondence study.
1918	The federal government granted over 202 radio broadcasting licenses to educational institutions.
1950s	correspondence study struggled to gain acceptance
1958	Offers nearly 450 courses in nearly 150 areas of learning
1969	The founding of United Kingdom's Open University (OU) marked a significant development of the second phase of distance learning, with its mixed-media approach to teaching (ibid.).
1969	Four open universities were established in Europe, and more than 20 were established in countries around the world.
1970s	Cable and satellite television came into use
1990s	The advent of the Internet and digital applications
Between 2000 and 2008	Undergraduate enrollment in at least some distance programs became more and more common.

Table 3.4: Gradual Development of distance education all over the world

[Source: Wikipedia]

CHAPTER 4

CASE STUDY: BANGLADESH OPEN UNIVERSITY

Bangladesh Open University (**BOU)** is a public university with its main campus in Board Bazar, Gazipur District, at Dhaka Division. It is the 7th largest university in the world according to enrollment.

Bangladesh Open University (BOU) is the only open institution in Bangladesh. It was established in 1992 under the Act No. 38 of the Bangladesh Parliament. The objectives of BOU are "expand all levels of education, knowledge and science by a diversity of means, including the use of any communication technology to improve the quality of education and to provide opportunities for education to the general public through mass-orientation of education and to create efficient manpower by improving the quality of education in general". It uses tutorial classes, print materials, audio tapes and Radio- TV broadcasting of lectures for delivering its programs. It has a wide network consisting of 12 Regional Resources Centers (RRCs), 80 Coordinating Offices (TCs) and more than 1000 Coordination Offices (COs) throughout the country. BOU has a sophisticated media centre with the facility of airing. The total number of students is about 0.5 million.

[Source: BOU website]

Fig. 4.1: Bangladesh Open University

4.1 Bangladesh Open University (BOU) at a Glance:

Established	October 21, 1992
Type	Public University
Mode of Delivery	Open and Distance Learning
Chancellor	Md. Abdul Hamid Honorable President of the People's Republic of Bangladesh
Vice-Chancellor	Prof. Dr. M A Mannan
Pro-Vice Chancellor	Prof. Dr. Khondaker Mokaddem Hossain
Treasurer	Prof. Md.Abu Taher
Total Students (Formal Programs)	5,70,201 (31 March, 2014)
Location	Board Bazar, Gazipur, Bangladesh
Area	35 Acres
Academic Schools	6
Administrative Divisions	11
Total Academic Programs	51 (Formal Programs:32; Non-Formal Prorgams:19)
Regional Centers/Campuses	12
Sub-Regional Centers	80
Study Centers	1381

Total Teachers/Tutors	22150
Examination Centers	1194
Affiliations/Membership	• The Commonwealth of Learning (COL) • SAARC Consortium on Open and Distance Learning (SACODiL) • Asian Association of Open Universities (AAOU) • International Council for Open and Distance Learning (ICODL) • Association of Commonwealth Universities (ACU) • Commonwelth Educational Media Center for Asia (CEMCA) • Association of SAARC Universities (ASU) • Global Alliance for Transnational Education (GATE) • International Research Foundation for Open Learning (IRFOL) • Commonwealth Open Schooling Association (COMOSA) • International Council for Open and Distance Education (ICDE)
International Collaboration	• Open University of Sri Lanka • Open University, UK • Open University of Malaysia
On-going Projects	• Development of E-Learning Centre and Interactive

	Virtual Class Rooms by Korean International Cooperation Agency • INSPIRE Project for Development of English Teaching by British Council

Table 4.1: BOU at a glance.

[Source: Bangladesh Open University Website]

4.2 The Reasons behind the Open education:

Distance education in Bangladesh is an important issue for several pressing reasons:

1. The vast majority of the people live below poverty line. They are unable to attend the urban based institutions and thus remain deprived of higher education despite their superior merit.
2. Those who join work force without completing their studies due to family commitments are unable to work for studies and also to find a place in the traditional institutions of higher learning, even if some of them have strong desire to higher studies.
3. The opportunity for higher education- the places are extremely limited in Bangladesh. Therefore, even those who can afford to finance their studies find it difficult to get admitted to any universities.
4. The tradition of childhood and early marriage in the country deprives the female population from higher education. Besides, there are some other usual factors like physical disabilities, remoteness of localities, higher tuition fees in most private universities, and so on.

These are the reasons for why millions of people are deprived from higher education in Bangladesh despite their keen interest and eligibilities. Open and distance education can open up the opportunities for higher education for such a vast under-

privileged population. Bangladesh is generously endowed with human resources that need to be well equipped with literacy and skills to contribute to economic development, which is badly needed for this country. The open and distance education is expected to do a lot in this field if provided with adequate facilities and quality.

[Source: Interviewee, BOU Officials]

4.3 Emergence of Open and Distance Education:

The roots in the history of open and distance learning in Bangladesh (the then East Pakistan) date back to 1956 when the then Education directorate distributed 200 radio receivers to the educational institutions, which in run, led to establishment of a Audio-visual cell and later Audio-visual Education Center (AVEC) in 1962. Upon creation of an independent Bangladesh in 1972, a pilot project 'School Broadcasting Program (SBP)' was undertaken during 1978-1980, which was later merged with AVEC to establish National Institute of Educational Media and Technology (NIEMT). The NIEMT was later transformed into Bangladesh Institute of Distance Education (BIDE) in 1985. Thereafter, Bangladesh Open University (BOU) was established in 1992 with major financing of Asian Development Bank (ADB). BOU started its operations in 1995 and the BIDE was merged with it.

[Source: Banglapedia]

4.4 Role of Bangladesh Open University in the Promotion of Distance Education

Bangladesh Open University (BOU), a public sector university, has emerged as the first University in Bangladesh to introduce higher education through distance mode.

The university has four objectives. One of these is to meet needs in higher education but three others are all relevant to basic education:

to increase access, especially in rural areas, to basic, secondary and vocational education; to raise the quality of education through instructional technology; to strengthen informal and non-formal programs.

The BOU has set up **12 regional resource centers (RRCs), 80 local centers (LCs) and more than 800 tutorial centers (TCs) throughout the country.** Besides BOU, a private dual-mode institute named Asian University of Bangladesh has also been offering some formal academic programs through distance mode. However, its contribution to DE is very small compared to the BOU.

4.5 Academic Program

BOU provides higher education and professional training in wide areas such as agriculture, business, education, arts, science and technology as well as basic education at secondary and higher secondary levels. It introduces several formal academic programs from Certificate to Masters Levels under six academic schools.

4.5.1 Mode of Teaching

Mode of teaching is very important for distance learning. Mixed mode uses several different media methods or deliveries such as video and e-mail compared to single mode which is one delivery method. Single mode delivery systems do not provide enough instructional power to ignite the student's interest because they fail to provide student involvement.

As a distinct mode of imparting education, Bangladesh Open University relies heavily on print materials, electronic media like radio-television and audio-video cassettes, and face to face tutorial services. The use of these techniques helps BOU to take its academic programs to the door-steps of people far and wide. It makes room

for in-house education. Considering the rapid expansion of ICTs in the country, BOU should introduce more electronic media like CD-ROM, e-mail, internet for its advanced learners.

Indeed, BOU has been broadcasting some radio and TV programs for the students of each formal program through national TV and radio. The broadcasting time of those programs are sometimes not convenient to the target learners. Therefore, BOU could easily make copies of those recorded programs on CD/CR-ROM and add with respective package of course materials. However, it is necessary to survey of student access in common ICTs to make a pilot project for introducing some interactive e-learning systems (proposed) with current modes of delivery of courses for the BOU students

4.5.1.1 DE Providing Methods

To bring education to the door step of the people, Bangladesh Open University (BOU) has set up 12 regional centers (RCs), 80 coordinating offices (COs) and more than 1000 tutorial centers (TCs), geographically distributed throughout the country. This report focuses the analytical results of data from the 35th annual reports of the University Grants Commission, Dhaka, and recent survey along with previously

Conducted case studies on some important academic programs of BOU. A brief description of BOU academic programs and current students' enrollment are given in Table 1. Structured questionnaires were prepared and used as described. Besides, a number of employers and successful past students were also interviewed at their offices or farms.

[Source: Md. Tofazzal ISLAM, 2006]

4.6 Staffs

BOU has well-trained and skilled academic and management staffs. Almost all teachers and higher ranked officers received an advanced training in distance and open learning in home and abroad funded by ADB. They received training in all aspects of DE including modern management, computer skill development, information technology, printing technology, media production, mass communication, communication skill development, environmental control, transport management, editing, module writing. These skilled staffs are able to introduce and run any new technology for e-learning.

CHAPTER 5

DATA ANALYSIS

Attempt has been made to find out the existing situation of DE. The data has been collected through the questionnaire. The Questionnaire has been distributed among the librarians, deputy and assistant librarians, Faculty members and top class students. They answer over the question. That was a try to bring out their tacit knowledge about Distance Education.

The questionnaire was both- open-ended & close ended. They answer open-ended over the barriers and how to develop a model plan for DE.

The Respondents:
the questionnaire has been distributed among 110 people. All of them from LIS field. The questionnaire has been distributed to library senior stuffs, faculty members and top class students.

The Respondents at a glance:

Number of respondents in Gender:

Persons	Total Number
Male	58
Female	52

Table 5.1: Number of respondents in Gender

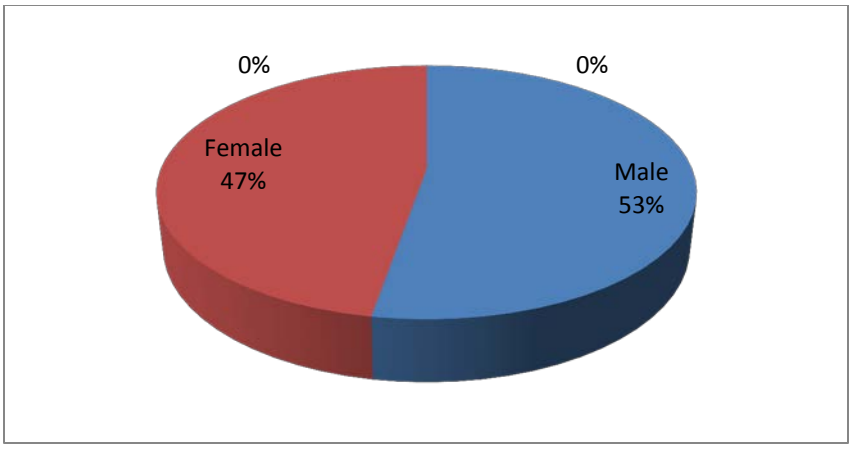


Fig5.1: The respondents' Percentage

The Respondents' Category:

Persons	Total Number
Library Personnel	85
Faculty members	10
Students	10
Expert	**5**

Table 5.2: The Respondents' Category

The Details about the Respondents

The library Personnel:

Total= 85.

Designation	Number
Librarian	5

Deputy Librarian	16
Assistant Librarian	22
Junior Librarian	13
Section Officer	12
Cataloguer	13

Table 5.3: The respondents (Library Personnel)

Faculty Members:

Designation	Number
Professor	**2**
Associate Professor	**5**
Lecturer	**3**

Table 5.4: Faculty Members

Table shows that, among the 10 faculty members,

a) Two were professor.

b) Five were associated professor.

c) Three were lecturer.

Popularity of the respondents with the LIS:

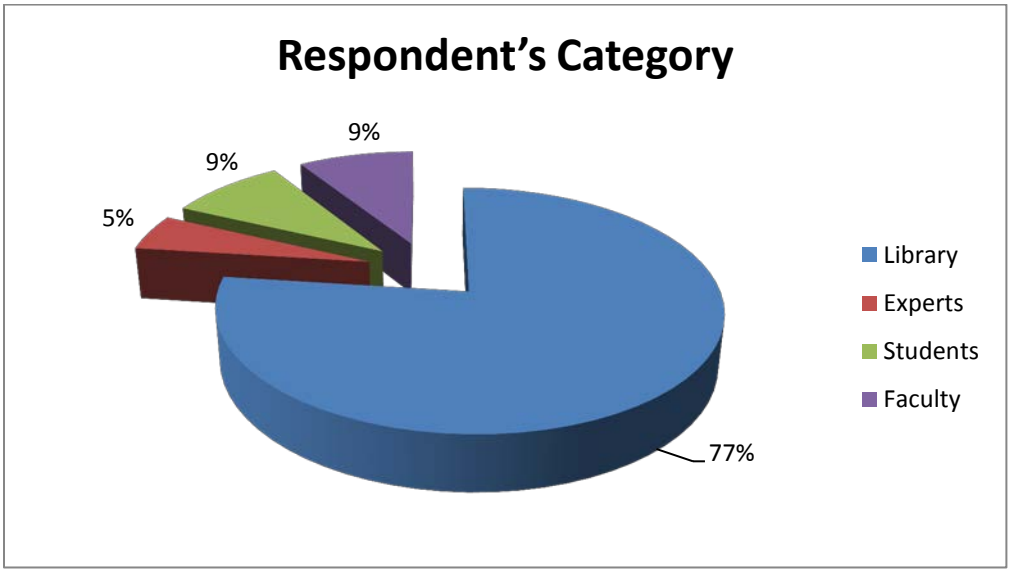


Fig 5.2: respondent's Category

Educational Qualification of Respondents:

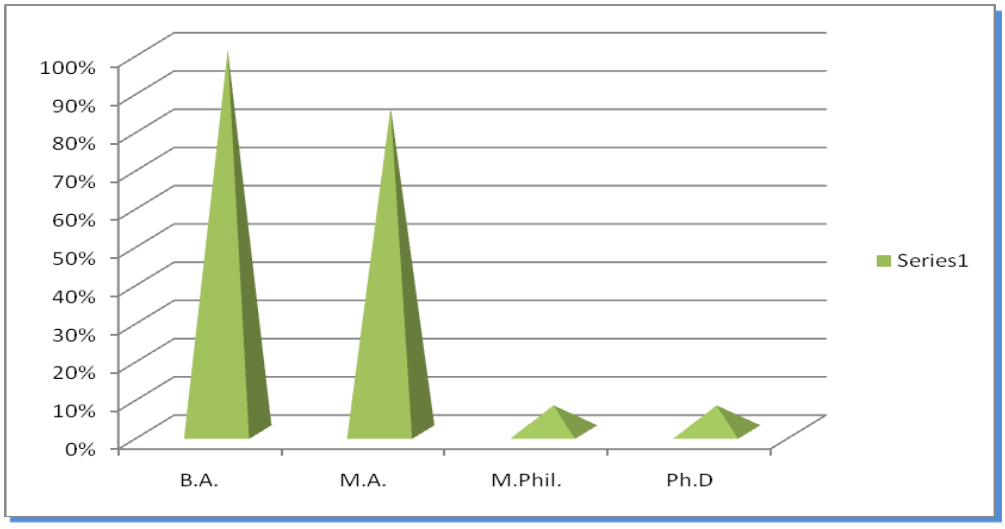


Fig 5.3: Educational Qualification of Respondents

Diagram shows that,

a) 100% of the respondents completed their B.A. degree.

b) 85% people have M.A. degree.

c) Only 7% has completed M.Phil.

d) The top most degree, Ph.D. is done by 7% people.

Popularity of DE

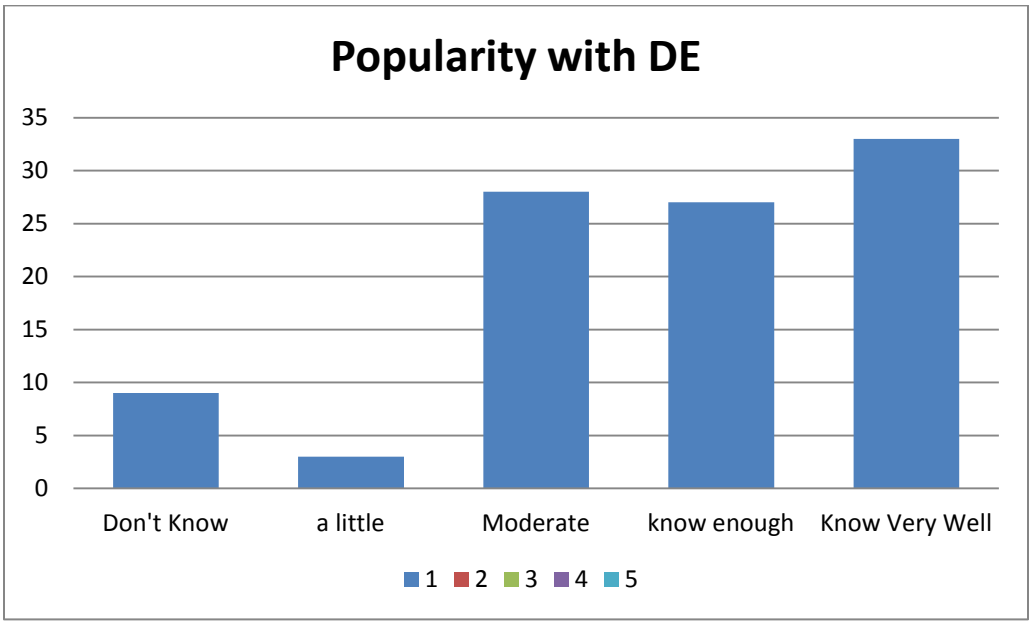


Fig 5.4: Popularity with DE

a) 8% of the interviewee is unfamiliar with DE.

b) 3% people know a little about DE.

c) 28% peoples' knowledge scale is average about DE.

d) 27% people know enough about DE.

e) The positive matter is that, 34% of the interviewee know very well about DE.

Present status of DE in LIS

All admitted that it is not established yet in LIS Field.

98% of the people said that, DE is possible in Bangladesh. And 95% admitted that it has a bright future.

Rating Type	Not yet established	In a good condition	Well established	Well practiced
Rating %	100%	0	0	0

Table 5.5: Present Status of DE in LIS

Chart shows that all of the respondents admitted that, Distance education yet not established in Information Science and Library Management Sector.

Future of DE in Bangladesh

Rating Type	**It is worthless**	**Not possible in BD**	**Possible in BD**	**Have a bright future**
Rating %	0%	5%	95%	92%

Table 5.6: Future of DE in Bangladesh

This question had multiple options to response.

No one said DE is worthless.

Only few persons think that it is not possible in Bangladesh. And the ratio is only 5%.

Maximum of the participant said that Distance Education is possible in Bangladesh. And the quantity of this, is 95%.

And, 92% people also admitted that, Distance Education has Bright Future in BD.

Hardware, Software, Technical Support- Needs of DE

For providing distance education, the providing institution must have infrastructure for that. And also need technical support.

There need to find out before, what is need to establish a system.

The requirements must be listed from both side-

The provider &

The receiver.

Hardware Requirements:

Rating Type	Computer	Projector	DVD Player	Tape recorder	Postal Communication
Rating %	98%	5%	5%	0%	2%

Table 5.7: Hardware requirements for DE

98% people agreed upon that, computer is essential. For both side-

the DE provider and the DE receiver.

Only 5% said that their also need projector.

And, 5% has said about DVD.

No one said about Tape Recorder. In this new age, there are many alternatives of tape recorder.

Postal communication also has very little vote. Only 2% people said about that.

Software:

Rating Type	Adobe Flash Player	Adobe Reader	Java Running Time	Net Browser
Rating %	98%	100%	78%	100%

Table 5.8: Software requirements for DE

all the specified options got on average same value.

98% people said about Adobe Flash Player.

100%, that means every said about Adobe Reader.

Java Running Time also got 78% vote.

And, 100% of the respondents accept that there need net browser.

IT Facilities:

Rating Type	Computer Training	Availability of Internet	IT Infrastructure	Programming Language
Rating %	88%	96%	99%	2%

Table 5.9: IT Facilities requirements for DE

88% said about the computer training for both side.

96% accept that, there need available internet connection.

99% of the people admitted that there need IT Infrastructure for DE.

Programming language is not that much needed. Only 2% said about it.

Barriers for DE

People Voted on Some selective problems. And also they find out new problems. Many people have said about the same barriers and the same necessities.

Barriers	Respondents' Vote (in %)
Administrative barriers	60%
Lack of expertise person	51%
Lack of willingness	46%
Slow internet speed	79%
Inadequate ICT tools & technologies.	82%

Table 5.10: Problems to Initiate DE

There are some matters which hinder DE.

a) Administrative barrier has been specified 60%.

b) Lack of expertise person has been specified 51%.

c) Lack of willingness has been identified 46%.

d) Slow net speed has been get priority with rating 79%.

e) Inadequate ICT tools & technologies got priority with rating 82%.

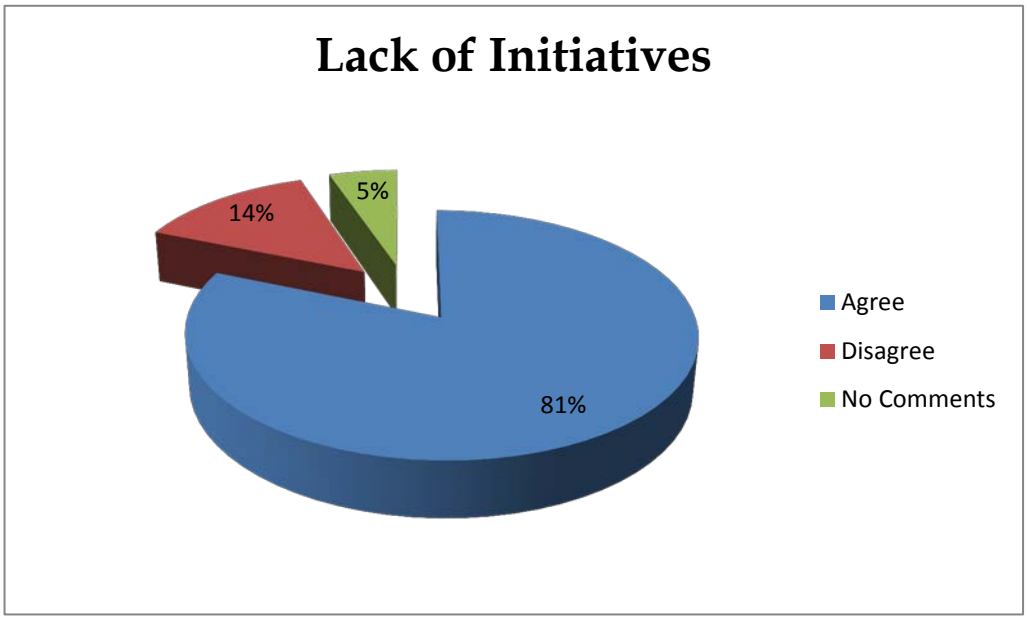


Fig 5.5: Lack of Initiatives

a) 81% people agreed upon.

b) 14% people disagreed.

c) 5% people gave no comments.

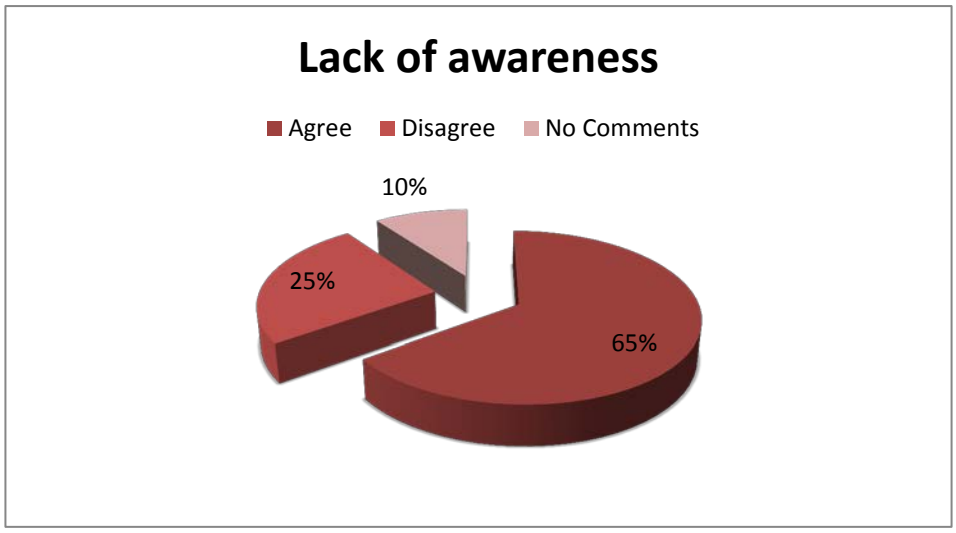


Fig 5.6: Lack of Awareness

There,

65% of the people agree with that lack of awareness is one of the main barriers.

25% of the people oppose that.

And, 10% of the people didn't pass any comment over that.

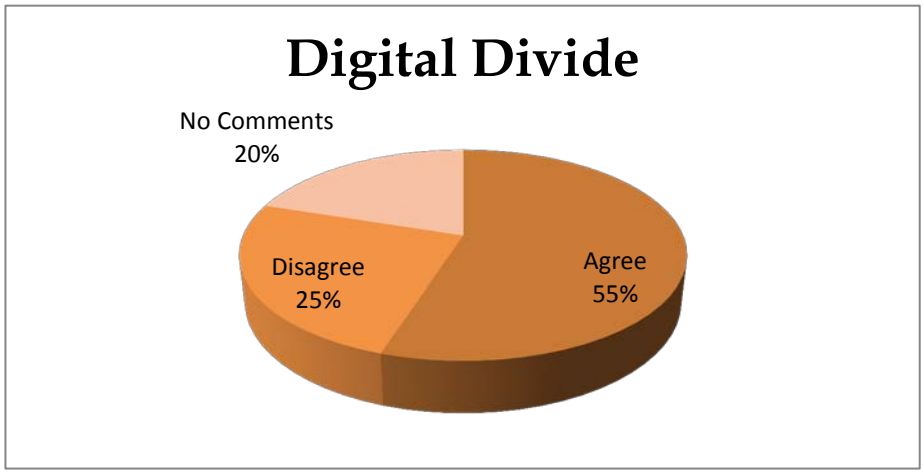


Fig 5.7: Digital Divide

55% said about digital divide.

25% of the people oppose that.

20% people leave that unanswered.

Matters need to overcome before establish DE

Respondents have given their opinion on those topics. These matters must be solved before establishing DE in Bangladesh.

i. IT Infrastructure

ii. Inadequate of Facilities

iii. Low bandwidth on channel

iv. Distance education is less rewarding

v. Financial crisis

vi. Traditional outlook about education system

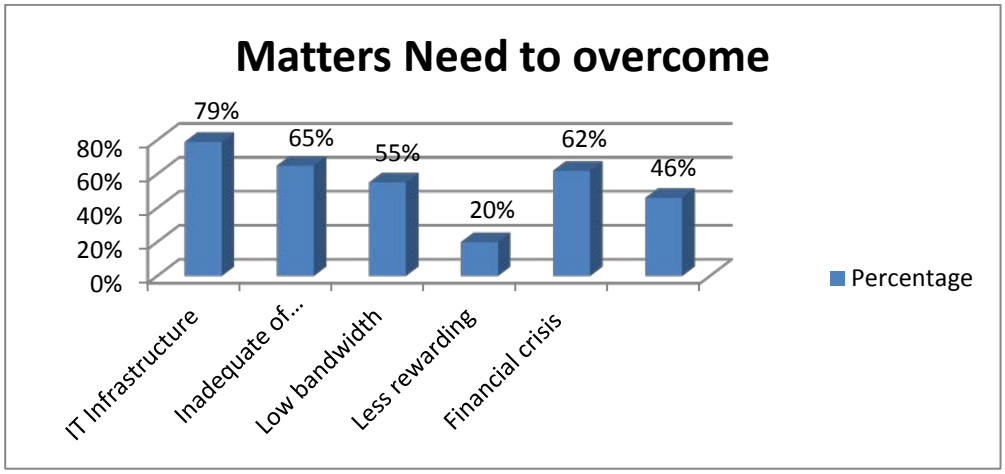


Fig 5.8: Matters need to overcome before establish DE

a) 79%people said about IT Infrastructure.

b) 65% interviewee said inadequate of facilities.

c) 55% told low bandwidth.

d) 20% said that it is less rewarding.

e) 62% people said about financial crisis.

f) 46% of the people agreed that, traditional outlook is one of the major barriers for DE in BD.

Need to Do

What to do for raising awareness:

Ratio in %	1-20	21-40	41-60	61-80	81-100
Workshops				69%	
Training				66%	
Seminar			42%		
promote				52%	
design a sophisticated user interface					63%

Table 5.11: Matters to do for raising awareness

a) 69% people gave emphasis on workshops.

b) 66% of the people gave emphasis on training program.

c) 42% people said about seminar.

d) 52% people agreed that, this program need to promote among the people.

e) 63% suggested to design a sophisticated user interface.

What should do for establishing DE

Matters	Ratio (in %)
Develop a proper course curriculum	68%
Arrange workshops and training	62%
Allocate adequate budget	66%
Design a sophisticated user interface	70%

Table 5.12: Matters need to do for establishing DE

a) Developing a proper course curriculum is rated 68%.

b) Arrange workshops and training is rated 62%.

c) 66% said about allocating adequate budget.

d) Designing a sophisticated user interface has rated 70%.

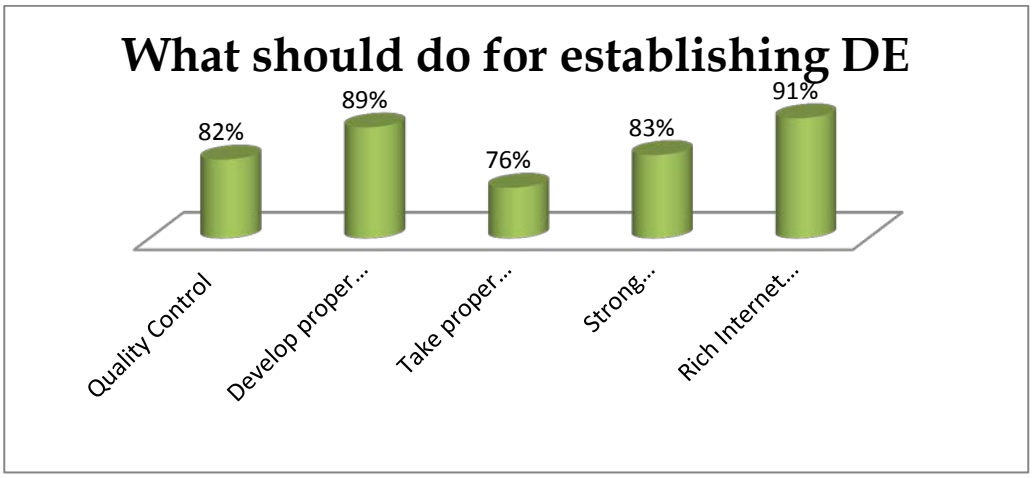


Fig 5.9: graphical Presentation of what need to do

82%percent importance has given to quality control.

Developing proper infrastructure have 89% of importance.

76% people said about taking proper initiatives for raising awareness.

83% said that, there also need strong telecommunication facility.

And, maximum people, 91% people said that, there need a rich and available internet facility.

CHAPTER 6

MODEL PLAN

There need to do the work in some phases or groups for establishing a proper model plan. For developing a proper model plan need to do the whole process into step-by-step manner. There need to develop the whole thing.

There need to follow Work Breakdown Structure(WBS). At first, there need to plan the whole process. Then the total project of establishing DE need to divided into group & sub-groups. Each group will develop its own contents. When every group finishes their work, then we will connect all groups together. And that will stand a proper model plan for Distance Education.

We need to categories the whole activities. Our first job is to do WBS.

Objective

The objective of this model plan is to establish a distance education system for the information professionals. The aim is to give them facility for achieve a number of degrees when they are already involved in the job. Because, it is quite impossible for the professionals to join physically in any regular educational course. So, this model is for them to giving facility.

1. Grouping the whole activities:

There, we will do our model plan into groups and sub-groups. And lastly we join all the groups and that will be a complete model plan for providing Distance Education.

The total model plan will divided according to variables involved into model plan. The variables are:

A. Student
B. Teacher
C. channel
D. Courses
E. Course materials
F. Exams
G. Evaluation
H. Certificate.

1.1 Student's perspective:

Student is one of the main variable in DE. Some very important matters we need to keep into our mind:

i. Who will be student
ii. How they will get register
iii. What we will give them
iv. What is our main focus and what is our limitations

1.1.1 Who will be students:

In the beginning, will provide degrees only for professionals; that means who are already involved into Library profession, they will be our student. We will give them *Short- Course Certificate, Diploma, Special Training etc.*

1.1.2 How they will register:

We will have a main station. We also have a website with dedicated server. Student will go to that site. They will find there *online form for*

admission. They will submit all required information and documents there. And payments will be done in some ways. As like:

- ◊ bkash
- ◊ Mobile banking
- ◊ Bank account
- ◊ Direct payment to the main center/ sub-center.

Fig 6.1: Payment system for DE Course

Source: Google Image

Students will first go to website and full fill the form. Then they will get a pin number. With that pin number they will pay the fees. And then they will get their user ID and password. In future, they will log in into website with that user id and can do course related works.

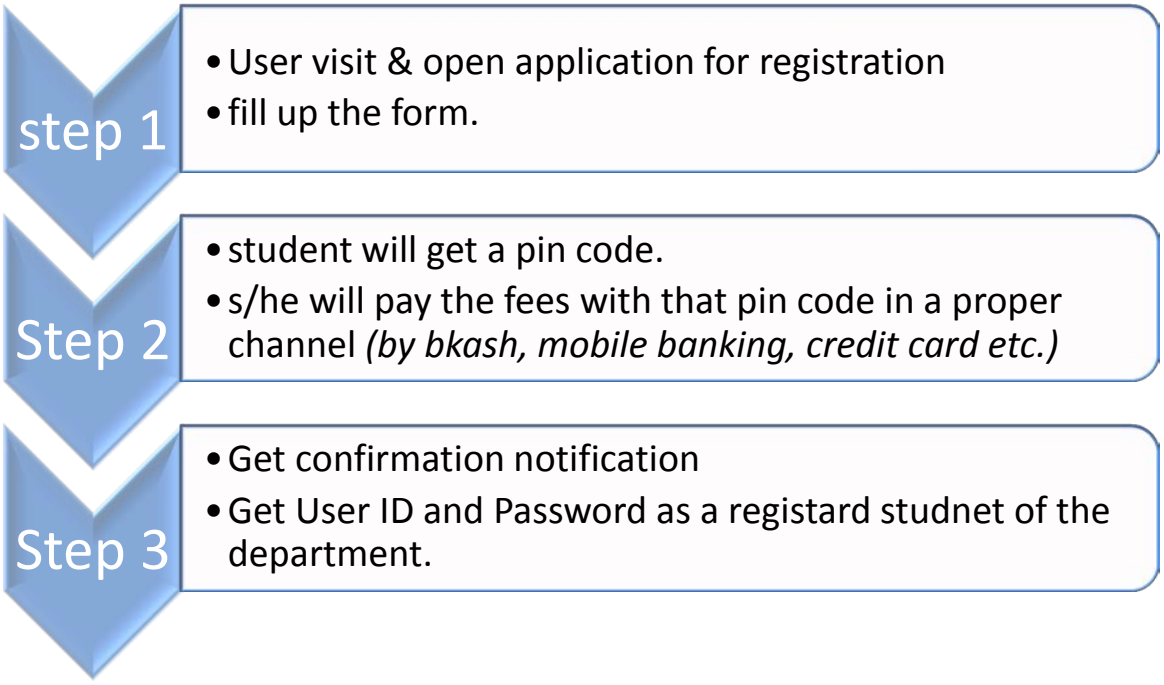


Fig 6.2: Student Registration Process

1.2 Teacher Perspective:

Teachers must be skilled and positive towards Distance Education. Teachers need to have ability to judge the student over internet. And a teacher will have freedom to choose the mode of teaching. A teacher may give his lessons over internet, where s/he can easily share electronic materials. And a teacher may also use traditional postal system to deliver hard copies. But, it will be better, if all teachers follow the same path.

Teacher will also have freedom to choose whether his classes will be synchronies or asynchronies. Better to take decision after talking with the students which one will be benefited for both. Then they can choose real time teaching, or recording.

1.3 Course Design perspective:

It is one of the most important part of the model. The institute will give what course; that must be specified before launching the program.

As the institute is dealing with the professionals only, so it is very clear that they have completed a certain level of study (*like B.A., M.A.).* Now we will give them some additional degrees which will increase their compatibility and help to gain promotion.

We will offer:

1. Short Time Course
2. Diploma in ISLM(for out student who don't have B.A. or M.A. in ISLM)
3. Special Training Program (in KOHA, GREENSTONE, DSPACE etc library software).
4. 1 year special Course.

1.4 Class Design perspective:

It is very important to design how the classes will be taken. In the Distance Education, there is no boundary for the class room. Anybody can join from any place. That is the main theme of DE.

Classes mainly categories into two parts:

A. **Synchronous:** if the class held with live video conference, the real time sharing etc,
B. **Asynchronous:** If the students can collect lectures, course materials, instructions later.

Teacher can take class through live video chat in group, or personal. If there are many students, then the class may be taken in live group chat.

Any student can ask question over the lessons. Teacher will answer to it.

Or, in other way, teacher will record the lecture/ lesson. And student will take that video clip and learn lesson from that.

1.5 Course Materials perspective

It is top most important matter in case of Distance Education. What types of materials we will use, and how they will be used- both questions is important.

Whether we will use online materials, electronic mediums or hard copies- we need to specify before.

We can use electronic media and traditional media in this percentage:

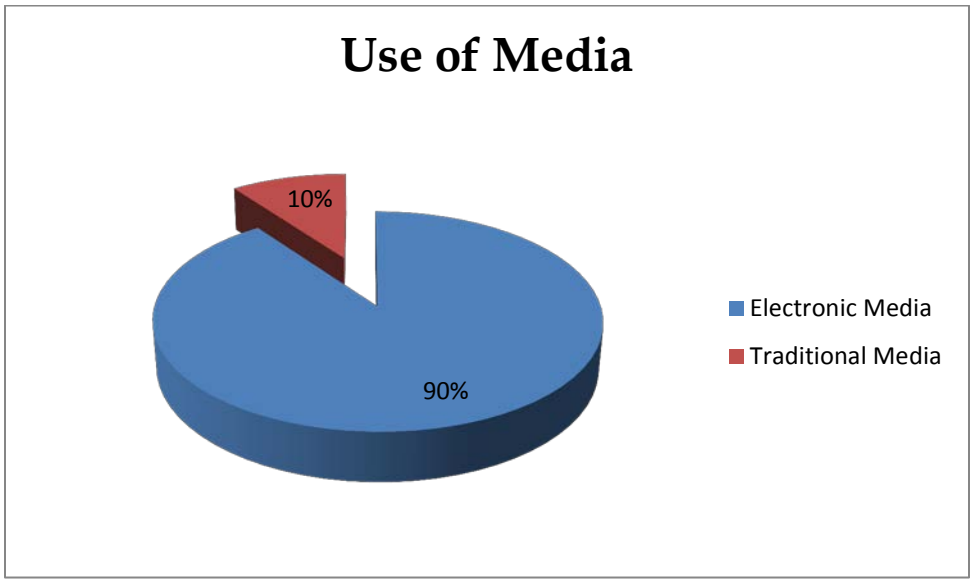


Fig 6.3: Uses of Electronic & Traditional Media

Here,

We will provide 90% of DE using Electronic and online media.

Only 10% will provide in traditional way *(Hardcopy, postal system etc).*

Which Medium will be used:

Electronic and Online	Traditional Media
DVD	Books(Hardcopy)
Video Clips	Lecture Sheet(Hardcopy)
Voice Recordings	Journals(printed)
Books(ebook)	Audio Cassette
Journal article(E-journals)	Etc.
Sheet(Softcopy)	
Etc.	

Table 6.1: Media use in providing DE

2. Centers for providing DE

There must have centre point to establish Distance Education. There need a permanent station from where all activities will be routed and controlled.

We can provide DE in two manners:

1. Main Centre Based DE System:
2. Sub-center based DE system

2.1 Physical Existence:

We will have our permanent centre in Information Science and Library Management department, at Dhaka University. All the

activities, every kinds of activities will be maintained from here. This is the centre point. The mother board of the whole system.

2.2 Virtual Existence:

The centre will have a website with the dedicated server and IP address. Every kind of important documents, like- *Syllabus, course materials, important papers, instructions, application forms etc* will be available there. Every student will be provided with a specific ID no. & password for his/her own. They will log in into their ID, and can download what they need.

2.3 Main Centre Based DE System:

We can manage all activities from one centre point. Everything will be routed and controlled from the main centre. The main centre will one and only centre point for providing Distance Education.

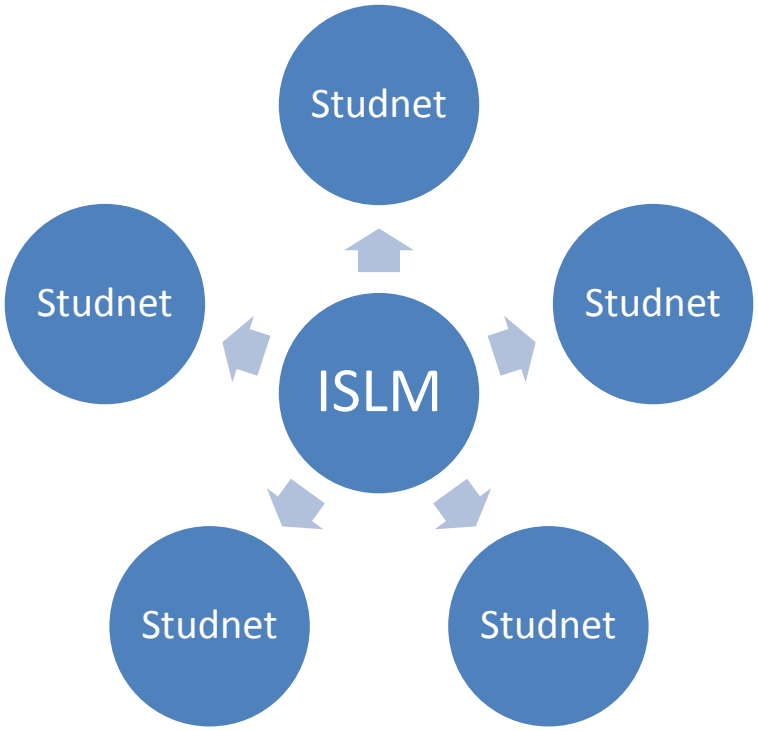


Fig 6.4: Main Centre based DE System

Here, it is shown that, every work is maintained and controlled by the one and only centre point, ISLM.

2.4 Sub-center based DE system

We can set some more sub-stations around the main stations. The main centre will be the controller of the sub-centers. And sub-centers will provide distance education around its selected area.

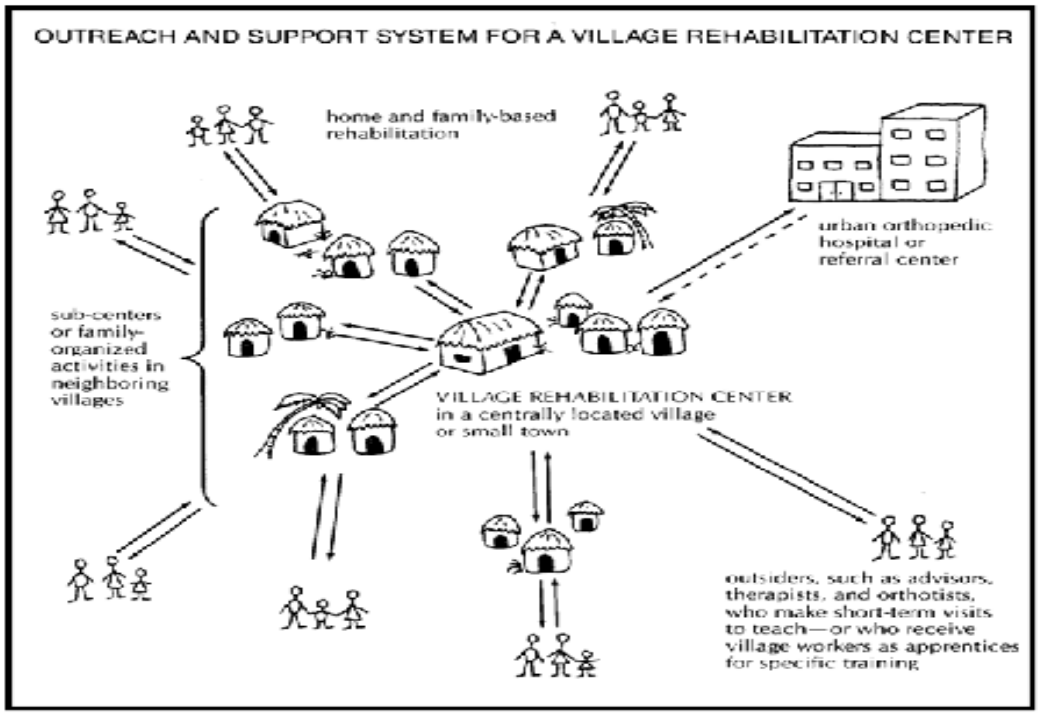


Fig 6.5: Sub-centered based DE

(source: Google Image)

3. Exam System

Top most fact is exam. There various question may arise regarding the quality and transparency of the exam.

So, taking examination is very sensitive and burning issue. There need to create a proper plan with the examination.

Exam may be divided into some parts:

1. Written
2. Oral
3. Multiple options choosing
4. Short Q/A
5. Exam with live video
6. Viva-voce with Video *etc,*

Process:

3.1 In Main Centre based DE System:

3.1.1 In written, MCQ, Short Q/A:

We will use new html page for written exam. Student will enter into exam page with their user id and password. Then they will write down their answer into HTML page. We will use a especial software. If they minimize, try to close the page, or open any other page or folder, that will notify the administrative panel. Then they can expel that student or can take any other steps.

Written exam can be taken with using video facility also. Student will write down and the webcam will be open. Examiner can watch the examinee.

Fig 6.6: Online Examination

3.1.2 Oral Exam, Viva-voce:

Oral exam and viva-voce can be taken with live video chat. Skype is an ideal example for real time video chatting.

Now-a-days, 3G also give video calling facility. So, we can also take oral exams through using mobile technology.

The video conference will be recorded for later evaluation.

Fig 6.7: Video Chatting

(source: Google Image)

3.1.3 Exception

If the administrative board is not satisfied with types of exam, question arise about the quality and transparency of the exam, they can take exam into their centre. Students have to come at centre to seat into exam. Face-to-face exam will held in both case- written & oral.

3.2 In sub-station system:

Examinee will go to the nearest station and seat for exam. There, student will give face-to-face exam. Written & viva- both will be taken at the station. And the examinee must go there.

4. Evaluation

After taking the exam, the examiner will evaluate the script and video clips of viva. Then s/he will give marks to the examinee.

5. Result

The institution will publish the result into website. And may also give result in mobile number. And details result will give to everyone's individual account. Student will log in into his/her id and check their full result.

6. Certificate

Certificate will be provided manually. Student will come to the main institute, and collect his/ her certificate

The Whole System will be done into following order:

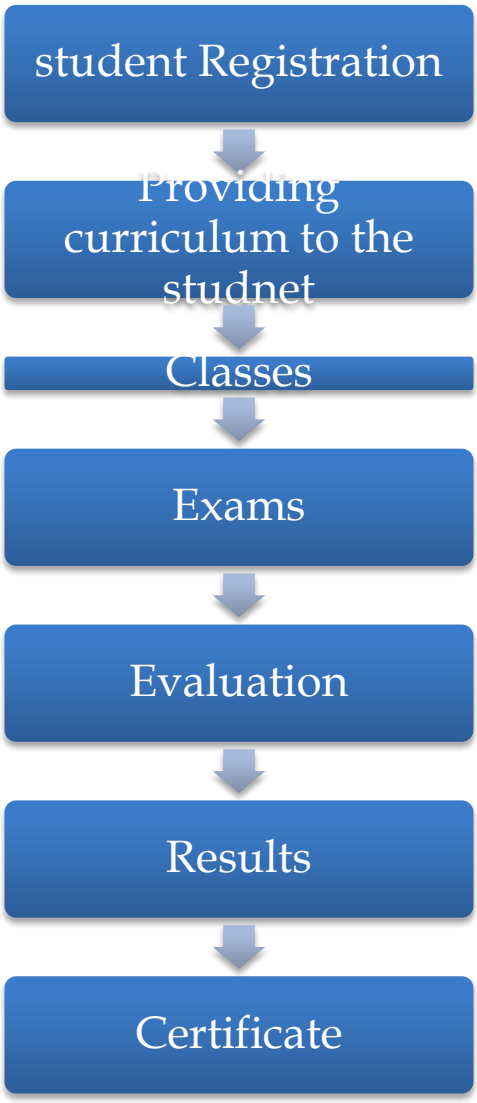


Fig 6.8: Distance Education Model Plan

Phase 1: students register for distance education program.

Phase 2: After Admission, student get individual user ID and Course Curriculum and details about the course.

Phase 3: Classes held. May be in synchronize or synchronizes.

Phase 4: Exam take place after finishing the course.

Phase 5: Examiner evaluate the exam scripts and recording clips.

Phase 6: result published.

Phase 7: Certificate is given hand-to-hand.

CHAPTER 7

CONCLUSION

Distance Education has a bright future. Time has come to establish distance education system in higher studies beside the regular education system. As library is a growing organism, the library professionals should have current knowledge about the world. And should have ability of cope up with new technologies. It is very much essential for library professionals to have new knowledge which are being invented every moment. A Distance Education system may give them a scope to do advance training and achieving higher degrees.

APPENDIX

QUESTIONNAIRE

Questionnaire on

Developing Distance Education among the Information Professionals of Bangladesh: A Model Plan

Interviewee Information:

Personal Information :

Name:

Gender: Male ☐ Female ☐

Designation:

Work Places:

Professional Information:

Academic Degrees

☐ B.A ☐ M.A ☐ M.Phil ☐ PhD

Work Experience in LIS

☐ 1-2years ☐ 2-4years ☐ 4-6years ☐ above 6 years

Q1. How much you are familiar with the Distance Education (please tick)

1…….2…….3…….4…….5
Low High

Q2. What is the present status of Distance Education in LIS field in Bangladesh?

☐ Not yet established ☐ in a good condition ☐ well established

☐ Gaining popularity

Q3. What materials are required for Distance Education (you can tick on multiple options):

☐Web Browser ☐ Adobe Reader

☐Adobe Flash Player ☐ Java Runtime Environment

Hardware: ☐ Programming Language

☐ Computer ☐ Database knowledge

☐ Tape Recorder

☐ DVD/VCD player

☐ Projector

Technical Training:

☐ IT knowledge

☐ Computer Training

☐ Internet knowledge

Q5. What are the barriers of Distance Education in Bangladesh?

Ans:

Q6. Idea about model plan (how to establish a distance education system):

Ans:

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