UTILIZATION OF INSTRUCTIONAL MEDIA IN DISTANCE EDUCATION: THE CASE OF TWO DISTANCE INSTITUTIONS

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Acronyms

AUC: Alfa University College

EMA: Educational Media Agency

GSS: General Secondary School

ICT: Information Communication Technology

MOE: Ministry of Education

PADEA: Pan-Africa Distance Education Academy

Abstract

The major purpose of this study was to deal with utilization of instructional media. It particularly emphasized on the role, status of utilization, and major factors that hampered utilization of media in AUC and PADEA by taking the GSS distance education programme at the Addis Ababa study centers as a case. To realize the objectives stated, data were gathered from different parties by using in-depth interviews, and observations as well as document analysis. The informants were intentionally chosen based on their concerns, responsibilities, cooperativeness, experience, and other related qualities. The data rigorously collected were presented with the help of long and short direct quotations; and narrative statements based on the participants' understanding and interpretations besides the researcher's his reflective analysis. The major research findings revealed that the use of different media forms has a paramount importance so as to well-facilitate the entire instructional process at a distance. In terms of the status of utilization of media, presently both institutions have been utilizing, limited media forms out of which students were largely relied up on text-modules, but face-to-face tutorial sessions suffered from serious shortage of attendants. More or less, in the institutions some activities were observed to gear for the betterment of the existent media utilization status. Nonetheless, various factors, such as the place that media have got in the curricular materials; factors emanated from the institutions themselves; factors related to learners, tutors, finance, the medium itself; and others were found responsible to hamper the institutions' media utilization. Thus, the institutions give due attention for the inclusion of different media forms other than text media in the curricular materials; attempt to provide the necessary orientation, or trainings, and instructional materials; and at last, the institutions have to make ready themselves to cope up with the fast technological progress of the day.

Chapter One

Introduction

1.1. Background of the Study

The rapid advancement of versatile communicative and instructional technologies and the rigid nature of conventional form of education create a favorable condition for the appearance of distance education as one alternative way of educating people. Undoubtedly, presently, distance education has been providing better chance to those learners who never had the opportunity to attend conventional schooling, and for others who are greatly in need of such type of instruction. Yesuf and Falade (2005) by referring Yesuf (1999); and UNESCO (2002) specifically posited that distance learning offers unique opportunities for life-long learning to working adults; out of school program for children and youth who are unable to attend ordinary school as a result of disability, illness or remote location; educational opportunities for nomadic and itinerant groups and pre-service teachers' preparation and in-service development, among others.

For Siddique (2004), and other many writers, such as Bates (1993); Holmberg (1995); and Keegan (1996) distance learning is any type of education that occurs while location, time, or both separate the participants. In distance learning, the teacher, through the use of different media forms (technologies) deliver instruction to a student at a separate location. The teacher then receives feedback, either immediate or delayed, from the student. As a result, no one disputes the role that media have played in distance education.

As to Amare (1995) the term instructional media refers to various ways which enable students accessible to miscellaneous forms of educational information. Among these media forms, like face-to-face, text media, audio media, video based media, and computing media that are most probably known and/or most frequently utilized in many distance education institutions. Variety in media use can certainly make the course given at a distance more interesting, providing alternative modes and styles for learners, and encouraging learners to grasp the necessary knowledge or skill rather than just mere memorization. Likewise, almost all experts in the field agreed up on the application of multi-instructional media in distance education to make it lively, and facilitate the two-way communication at a distance (Marew, 2002; and Amera, 2003).

There is one thing that makes strong the correlation between distance education and media, i.e. the fact that distance education demands extreme students' individual involvement in the instructional process. In this regard, for instance Amera (2003) affirmed that since distance education is the highest form of student-centered approach, it needs maximum utilization of instructional media. Similarly, considering the view point of Amare (1998) he further noted that distance education is unimaginable without the optimum use of instructional materials (media).

However, so far as the writer's knowledge is concerned, such correlation has not yet studied in our country by taking the GSS distance education program in non-government owned distance education institutions in to account. Hence, based on this, the researcher strived to see the roles, status of utilization, and major challenging factors affecting utilization of instructional media in AUC and PADEA.

1.2. Statement of the Problem

Starting from the first attempt of correspondence learning, distance education has been evolved through different stages of developments. These days, there is a prompt expansion in the range and types of technologies available to distance education. According to Mc Isaac and Gunawardena (1996), recent developments in technology are erasing the lines between traditional and distance learners as more students have the opportunity to work with multi-media designed for individual and interactive learning.

However, due to several reasons, many countries of the world have not yet have a satisfactory share in utilizing these diverse media technologies. In relative talking, this is truly reflected in their distance education institutions. Many economically developed nations have better understood the role of different media and there by they have been efficiently utilizing for distance education at different levels. Their educational institutions, therefore, heavily utilize not only the text medium but also the non-text media for certain inevitable instructional purposes that cannot be met with print materials. Even, as to some writers (Manjulika and Reddy, 1996; and Mc Isaac and Gunawardena, 1996) text medium, once was the primary method of instructional delivery, is now taking a backseat to modern interactive media technologies.

Though, since 1980's distance education has come to be recognized through out most of the developing world as a legitimate policy option for formal and informal educational applications (Teshome, 2001), the extent at which it has been supported by a variety of instructional media forms, and the place that the media have given in the sector

is quite minimal. The situation is even the worst at pre-tertiary education i.e. at the primary and secondary levels (Siddiqui, 2004). This also holds true in Ethiopia.

Since the end of 1960's, the on set of distance education (correspondence study) in the country until very recently the sector has registered notable successes. EMA the main government agency responsible for the delivery and development of distance education in the country used a multi-media approach with print, radio, and tutorial coverage for about a decade particularly at secondary level education. However, two or three years back, after the EMA had postponed its mandate to run distance education programs at pre-tertiary education for those newly emerged private educational institutions, the instruction has been delivering only with limited media forms, such as text-modules and face-to-face tutorial sessions (Fisseha, 2006; and Kitaw, 2007).

This showed that in the sector after the EMA's role phased out, the level of instructional media utilization in distance education institutions has been going down. Thus, the researcher tried to inspect the actual circumstance laid on the ground at GSS distance education (Addis Ababa study centers) program in AUC and PADEA in line with the following basic research questions set in the study. These were:

1. How do informants conceive of the roles different media forms?
2. What is the status of utilization of instructional media in the institutions?
3. What are the major constraining factors that impede utilization of media?
4. What suggestions are possible inline with the problems encountered?

1.3. Objectives of the Study

This study generally aimed to deal with the roles, and utilization of instructional media at GSS level in both institutions under which the study was conducted.

Specifically, it also intended to:

- explore informants' understanding towards the roles of media;
- examine the status of utilization of instructional media;
- investigate the major factors that hampered utilization of media; and lastly
- forward possible suggestions inline with the problems unfolded

1.4. Significance of the Study

So far, the researcher had not come across a complete study conducted on the issue of instructional media utilization in the sector of distance education, especially at the GSS level. Therefore, this study will be valuable in terms of the following points:-

- It may create awareness to the stakeholders and the concerned institutions about multi-dimensional roles of instructional media;
- It initiates the concerned educational institutions to give due attention to utilize different media forms properly;
- The study helps to provide some useful suggestions for the educational institutions under study to remedy the problems regarding utilization of media ;and
- It may also initiate other researchers who have an interest to make further study on the issue.

1.5. Scope of the Study

The study was delimited to look into utilization of instructional media in distance education. Thus, under this, the roles of media; the status of utilization of different media forms; and the major factors that hampered instructional media utilization in the institutions were considered. The issues were treated by taking the case of GSS distance education program in AUC and PADEA with particular emphasis on the Addis Ababa study centers. Thus, the findings might not be working, especially for other programs and study centers of the same institutions.

1.6. Limitations

For several reasons, the researcher had not employed tape recorder or any other electronic devices while gathering data. So, it is believed that few points might have been missed, which were quite helpful as inputs of the research findings. Considering this and other limitations, the researcher cannot claim to have made a full-fledged study on the issue raised in the research settings. Hence, further studies by others are essential it enrich the paper.

1.7. Organization of the Study

The study has five chapters. The first chapter is an introductory part consisting of background of the study, the problem, objectives, significances, delimitation, limitations, definitions of key terms, and organization of the study.

The second part is the review of related literature, under which the concept distance education; instructional media and technologies in distance education; technological development and media based forms of distance education; taxonomy of distance learning instructional media; distance learning environments in media utilization; the status of utilization of different instructional media forms; and major factors determining instructional media utilization are presented.

Chapter three deals with, research design and methodology. In this chapter, research design, background of the research settings; rationales for selecting research settings; methods; and validation strategies are discussed.

The fourth chapter comes with presentation and analysis of the data gathered from different sources with the help in depth-interviews, observations, and document analysis. And the last chapter provides conclusions and implications based on the research findings.

1.8. Definition of key Terms

Correspondence Learning (Study): it is an early form of distance education which is entirely based on printed courses and communication in writing (Holmberg, 1988).

Electronic Learning (e-learning): refers to the delivery of content via the internet, intranet-extranet, audio and video tape, satellite broadcast, interactive television, CD-ROM, and others (Holden and Westfall, 2005).

General Secondary School: it is the level of education in Ethiopian educational system that covers grade nine and ten (TGE, 1994).

Mentoring: is a kind of professional activity that involves role modeling, advising, and counseling on a range of academic and professional issues, and intensive constructive dialogue (Siddiqui, 2004).

Study Center: refers to offices the institutions established to carry out their programs (Fisseha, 2006).

Text Module (Module): is one of the series parts which together make a complete course used to teach distance learners in distance education institutions (Shumete, 2001).

Tutor: a person who is employed to assist distance learners by giving face-to-face tutorials, and also evaluate learners' assignments, etc (Fisseha, 2006).

Chapter Two

Review of Related Literature

Reviewing the literature on the problem refers to researchers thoroughly review of relevant literature to gain more understanding and insight in to the problem and to determine what researches may already have been done (Ary et al., 2002). So under this part, an endeavor was made to review the literature related to the concept distance education; the overall aspects of instructional media and/or technologies in distance education; the status of instructional media utilization in distance learning institutions, and at last, the major factors that affecting this, which were believed to be pertinent with the issue raised under study.

2.1. Distance Education: The Concept

2.1.1. Definition of Distance Education

At different times many writers in the field of distance education have been defining the term 'Distance Education' differently and from different instructional perspectives but having a lot of common elements. For instance, Keegan (1996) classified definitions on the basis of two time spans, i.e. definitions which were given before 1980s; and during and after 1980s as early and recent definitions respectively. He had taken the Dohmen (1967); Peters (1973); Barker et al. (1989); Moore (1990); and Partway and Lane (1994) meanings on distance education and concluded that, both in the early and recent definitions the following points were considered as crucial elements. They are:

- The separation of teacher and learner;
- The structuring of learning materials; and
- The linking of these learning materials to effective learning by students through an educational organization.

However, recent definitions gave due consideration also for the inclusion of modern and versatile instructional media technologies in distance education to make it two-way, interactive, and effective. In a comprehensive manner Marew (2002) revealed the definition below for distance education on which most experts in the field agreed...

> *Distance education is a system of education offered by some one who is removed in space and time from the learner.....with the help of different media, other than printed material....and the learner is often an individual who learns in his own place and at his own pace (P.21).*

2.1.2. Major Characteristics of Distance Education

Distance education has certain major features that mainly distinguish it form conventional/traditional form of education. For Keegan (1996) these features also interchangeably called as basic elements of distance education. They are:

- The quasi-permanent separation of teacher and learner through out the length of the learning process;
- The influence of an educational organization both in the planning and preparation of learning material and in the provision of student support services;
- The use of technical media;
- The provision of two-way communications;

- Individualized teaching with the possibility of occasional meeting for both didactic and socialization purposes; and
- The participation in a more industrialized form of education (Holmberg, 1981; Keegan, 1986; Criscito, 1999; and Powar et al., 2000).

2.2. Instructional Media and Technologies in Distance Education

The term instructional media and technologies are confusing to be used. However, Bates (1993) remarked that both terms are different. Media refer to the genetic forms of communication associated with particular ways of representing knowledge. While technologies are associated with each medium, which may be used to deliver these media (so the researcher in this paper adhered to this distinction with particular emphasis on instructional media).

Furthermore, the same author in his aforementioned book summarized the relation ship between some instructional media and technologies based on their application for distance education as follows:

Table 1. The relation ship between media and technologies in their applications to distance education (Bates, 1995).

Media	Technologies	Distance Education Applications
Text (including graphics)	Print Computers	Course Units , Supplementary materials, Correspondence tutoring, Data bases, Electronic publishing
Audio	Cassettes, Radio, Telephone	Programs, Telephone tutoring, Audio conferences
Television	Broadcasting, Video- cassettes, Video discs, Cable, Satellite, Fibre-optics, Microwave, Video conferencing, etc.	Programs, Lectures, Video conferences
Computing	Computers, Telephone, Satellite, Fibre-optics, CD-ROM, etc.	Computer-aided learning, E-mail, Computer conferences, Audio-graphics, Data bases, Multimedia, etc.

As it was stated before, utilization of versatile instructional media forms importantly characterizes distance education. Regarding the place instructional media have in education, Amare (1999) posited that instruction materials (media) provide the learner with a wide variety of experiences, such as doing, drawing, reading, listening, observation, sketching, speaking, discussing, computing, reporting, researching, role playing, thinking, etc. To perform these and other numerous activities and there by to accomplish the needed instructional goals, utilization of

different media in distance education is mandatory. Garrison (1987) in Manjulika and Reddy (1996) therefore, concluded that with out the use of instructional media distance education would not exist.

In this regard, Ortner (1992); Barker et al. (1993); Holmberg (1995); Belanger and Jordan (2000); and Bork and Gunnarsdottir (2001) listed some functions of instructional media while in their application to distance education, like

- Motivate students sufficiently to learn and sustain their interest in the process of learning;
- Make learners to have wider choices (more opportunities) for individual learning;
- Provide different kinds of information with illustrations, graphics, demonstrations, experiments, etc.;
- The possibilities of greater control for students over their learning;
- Make possible flexible learning i.e. learning at any place and time whether or not the physical presence of tutors or facilitators;
- Place greater responsibility for learning; and
- Foster live and two-way teacher-student and student-student interactivity.

In general 'decision makers' should therefore, try to ensure that all instructional media are available for teaching purposes, in one technological form or another will give variety to a course, not only providing an individual learner with different ways of approaching the same material, but accommodating different learning styles (Bates, 1995).

2.3. Technological Development and Media Based Forms of Distance Education

Due to the rapid development of technologies, courses using a variety of media are being delivered to the learning groups that dispersed in time and/or place. In recent decades, wonderful electronic communication media technologies have been added to the original mechanical media technologies, which are still, no doubt, being used with success in many parts of the world (Barker et al., 1993). Such developments helped distance education to be more competent with the conventional education and to address the needs to the growing number of distance learners.

Thus, based on the major technological innovations, distance education takes many forms/generations. Garrison (1989) cited in Powar et al. (2000); and Orivel (1994) recognized three generations of distance learning. Where as, Powar et al. (2000) added a fourth generation.

First Generation also known as Single Medium Based Distance Education had an age of long years which is so far as St. Paul's epistle to the Corinthians and goes on till the second half of 20th century, that is considered as an early form of distance (correspondence) education (Bates, 1995).

According to Powar et al. (2000), and Eshetu (2006) first generation is characterized by: the prominent use of a single technology (initially correspondence by mail, subsequently radio, then television and video cassettes), and lack of direct student interaction with the teacher originating the instruction. Here therefore, students are obliged to be

passive recipient only what all the institutions (tutors) have provided to them in the system.

Second Generation also called as Multi-Media Based Distance Education, characterized by a deliberately integrated multi-media approach, with learning materials specifically designed for study at a distance. Here there is a progressive trend from the first generation. As Sauve' (1993); and Orivel (1994) noted, this phase typified by the continued use of one-way media (print, broadcasting, cassettes) with two-way communication by correspondence tutors and sometimes supplemented with face-to-face tutorials.

According to Taylor (1998) in Powar et al. (2000) the Third Generation or Interactive Media Based Distance Education is emerged from the wide application of telecom and computer technologies in distance education. For Orivel (1994) these technologies including (audio teleconferencing, videoconfcrencing, audiographic communication, computer networking, etc.) provide far greater facility for two-way communication and result in much more effective interaction between the teacher who originates the instruction and the remote student and often between remote students, either individually or as groups.

Fourth Generation or Flexible Media Based Distance Education is an era of technologies of immediate future, which is distinguished by flexible learning methods and interactive multi-media, such as internet based access computer mediated communication; video desktop (two-way audio and video), and virtual classrooms (Powar et al., 2000).

Eventually, Bates (1995) referring to Kaufman (1989) pointed out that generations (from first to fourth) in distance education characterized by a

progressive increase in learner control, opportunities for dialogue and emphasis on thinking skills rather than mere comprehension.

2.4. Taxonomy of Distance Learning Instructional Media

Even though, classifying the existing instructional media is an ambiguous issue, Rowntree (1992); Bates (1995); Picciano (2001); and Perraton and Moses (2004) commonly agreed up on the indispensable intervention of the following media forms in distance education, namely face-to-face, text (print), audio (voice), audio-visual (television or video), and computing. Now let us have a look at their meaning, and some peculiar strengthens and weaknesses of each medium in its application for distance education.

2.4.1. Face-to-face

Face-to-face meeting is by far the most important and familiar form of activity in distance education, because of the fact that, it is a kind of contact with tutors that all a students can make use of and benefit from. In addition, personal consultations and discussions in groups organized and formed spontaneously, appear to be the most valuable supporting functions of face-to-face sessions apart from those that require special equipment, such as laboratories, machinery ,computer terminals, etc (Holmberg, 1995).

Mc Isaac and Gunawardena (1996), and Shumete (2001) strongly argued that certain objectives in distance education programs can most preferably met by meeting face-to-face. This is true when course

objectives require careful demonstrations, observations, laboratory works, and various practices. In this regard, Holmberg (1981) wrote that many psychomotor objectives and objectives in the affective domain i.e. attitudes and emotions are more effectively attained by personal contacts (face-to-face meetings).

Thus, regional and local distance study centers that offering tutorials should be equipped with essential technical equipments, skilled personnel, library, mentoring, and other support services (Holomberg, 1995).

In general, face-to-face sessions in distance education allow immediate response to learner; help learners to be acquainted with different skills; develop learner's attitudes and habits, which are more important for their study; enhance mutual inspiration and cooperation among learners, and help learners to get adequate counseling and other support services (Mc Isaac and Gunawardena, 1996; and EMA, 2003). However, according to Holmberg (1995) due to many reasons, face-to-face sessions are less frequently utilized by distance learners.

2.4.2. Text/Print

It is indisputable that print/text is a fundamental element of distance education programs than other instructional media. For instance, Heinich et al. (1989); Verduin and Clark (1991); and Moore (1993) clearly stated that there can be no doubt what so ever that print, in the form of printed text, is the most important medium for subject matter presentation in distance education.

Either print materials may serve as the primary source of instruction or they may be supplemental. As a primary source, distance students might use a text book and read various units on specific time table. Where as, as a supplement to instruction, text materials may take the form of work sheets or study guides that are used in conjunction with video or voice media (Barron, 1999).

Text media have a wide range and great varieties. As to Rowntree (1992) some print materials are in written forms, for example books, course syllabus, study guides, work books, project guides, bibliographic notes, reference manuals, pamphlets (leaflets), self teaching texts, maps, and wall charts. While others can provide the learner not just with written word but with photographs and diagrams; graphs and statistics; checklists and tables.

Alike other instructional media, print materials have also some common advantages and limitations. As it was revealed by Willis (1993); Picciano (2001); and Perraton and Moses (2004) text media are chosen to be used because they are spontaneous (can be employed in any setting with out the need of sophisticated equipment), cost-effective, easy to use, self-paced, portable, easily reviewed and referenced, readily available, time effective, etc. On the contrary, they are non-interactive, have no audio and visual elements, require reading skill, are passive and self-directed, etc.

Nowadays print materials have been utilizing for primary, secondary and post-secondary distance education programs in combination with other media, which are used to compensate the major drawbacks of print materials.

2.4.3. Audio/Voice

Audio media rely on the spoken word and sound for instruction. They are the next logical step in the evolution of distance learning delivery methods next to print media and instructionally they are used much like as print (Willis, 1993; and Picciano, 2001).

Like print, there are many forms of audio media available for distance education, including interactive (two-way), and passive (one-way), such as telephone tutoring, audio conferencing, audio graphics, audiocassette, radio broadcasting, voicemail, etc (Bates, 1995; and Barron, 1999). Thus, to have a clear picture now let us see some descriptions, strengthens and limitations of the major audio media technologies in their application for distance education programs at different levels. Few researcher's sources were Bates (1988); Keegan (1988); Barron, 1999; Yates and Tilson (2000); and Piccilano (2001).

Table 2. Some descriptions, advantages, and limitations of audio media technologies in their applications for distance education.

Audio Media Technologies	Descriptions	Advantages	Limitations
Audiocassette	It has been used extensively in distance learning programs through out the world.	Simple to use, Durable, Portable, Inexpensive, Self-paced, etc.	Non-interactive, Passive/Self-directed, Requires printed study guides, Non-graphic, etc.
Radio	It is the easiest way of reaching adult or potential learner at a distance.	Mass distribution, Easy to use, Relatively inexpensive, Motivating, etc.	Non-interactive, Requires printed study guides, Non-graphic, etc.
Audio Conferencing	Voice only communications linking two or more sites. In most cases standard telephone lines and speaker phones are employed.	Interactive, Immediacy, etc	Non-graphic, Requires printed study guides, etc.
Audio-Graphic Conferencing	Voice communications supplemented with the transmission of still images, pictures, graphs or sketches can be transmitted during the conference	Interactive, Immediacy, Provides graphics, etc.	Requires printed study guides, Limited graphics, etc.

Concerning audio media application, generally there are three main ways of using them in distance education, such as *listening:* attending talks, discussions, interviews, acted scenes, a natural sounds, etc; *listening and looking:* when students use printed material along with the audiotape; and *listening looking and doing:* when learners are using

printed materials and carry out some practical work along with audio based media (Rowntree, 1992).

2.4.4. Audio-Visual

Audio-visual media provide instruction with the help of moving pictures usually with accompanying sound (Rowntree, 1992). For Bates (1995); Heinich et al. (1996); and Minoli (1996) such media are of all media available come in the most diverse forms, for example television, videocassette, videoconferencing, etc. and each of the medium can be described as it relates to the direction of the video and audio signals as, one-way video and audio; one-way video and two-way audio, and two-way video and two-way audio.

Romiszowski (1981); Bates (1988); Kirkwood (1994); Picciano (2001); and Holden and Westfall (2005) revealed the advantages and limitations as well as descriptions of some commonly used audio-visual media technologies as follows:

Table 3. Some descriptions, advantages, and limitations of audio-visual media technologies in their applications for distance education.

Audio-Media Technologies	Descriptions	Advantages	Limitations
Instructional Television	It is a one-way, full motion video, and audio transmission of classroom instruction through telecommunications channel.	Mass distribution, Entertaining, Motivating, Provides graphics, Easy to use, etc.	Non-interactive, Requires printed study guides, Relatively expensive, etc.
Videocassette	It is a video tape that has been enclosed in a plastic case.	Self-paced, Provides graphics, Easy to use, etc.	Non-interactive, Passive/Self-directed, Requires printed study guides, etc.
Video Conferencing	It provides all the benefits of television and also allows the audience or students to interact in real time with the instructor and other students.	Interactive, Provides graphics, Immediacy, etc.	Expensive, Complex technology, etc.

On the other hand, audio-visual media differ enormously in production style to be used in distance education, for example relayed lectures, studio discussions, magazine format, documentary, case study, audio-visual resource, and audio-visual data base (Bates, 1995).

2.4.5. Computing

Computer here it is playing a major role as a storage device and to support the delivery of concepts, skills, and values from the source to destination unit. According to Picciano (2001) computer incorporates most of the capabilities of print, audio, audio-visual, and in addition, allows for a certain degree of user control.

Moreover, as described by Venrduin and Clark (1991), computer applications for distance education are varied and include:

- *Computer-Assisted Instruction (CAI):* uses the computer as a self-contained teaching machine to present individual lessons.
- *Computer-Managed Instruction (CMI):* uses the computer to organize instruction.
- *Computer-Mediated Education (CME):* describes computer applications that facilitate the delivery of instruction.
- *Computer-Based Multi-Media (CBM):* integrates various voice, video, and computer technologies in to a single and easily accessible delivery system.

As it was noted by Willis (1993) such various computer applications have some strengthens and limitations, such as

Advantages: Facilitate self-paced learning, provide multi-media service, interactive, wide access, etc.

Limitations: Expensive, computer illiteracy, rapidly changing, etc.

Moreover, with the increased popularity of the internet now computer based media are receiving more and more attention as a key means of delivering distance learning through electronic mail, bulletin boards,

world-wide web, etc. that can reach many individuals who prefer to study whenever and whatever they wish (Barron, 1999).

2.5. Distance Learning Environments in Media Utilization

Application of various instructional media technologies creates different learning environments in the learning process. These can be categorized as synchronous/asynchronous, and symmetrical/asymmetrical.

2.5.1. Synchronous Versus Asynchronous

A synchronous learning environment refers that the teacher and the student interact with each other in real-time either two-way oral, data, graphic, and/or visual communications through the applications of some instructional media technologies, like audio conferencing, video conferencing, internet, chat, desktop videoconferencing, etc (Ngai, 2003; and Holden and Westfall, 2005).

The same authors and Mason (1994) further explained that learning through synchronous environment facilitates the transfer of knowledge from instructor to the student in an interactive manner; encourages spontaneous responses; allows for optimal pacing for best learning retention; allows for immediate reinforcement of ideas; and controls length of instruction when completion time is a constraint.

On the other hand, in asynchronous learning environment delivery of instruction does not take place simultaneously or in real-time. So, Barron (1999) posited that the use of printed materials, video tape,

broadcast television, audio tape, radio, electronic mail, CD-ROM, etc. characterizes asynchronous learning environment.

Unlike synchronous, asynchronous learning in distance education provides more opportunity for reflective thoughts; not constrained by time or place; provides for flexibility in delivery of content; delays reinforcement of ideas; and may have higher attrition rate and may extend time for completion (Holden and Westfall, 2005).

2.5.2. Symmetrical Versus Asymmetrical

Again Holden and Westfall (2005) differentiated and well explained symmetrical and asymmetrical learning environments as follows:

> *Asymmetrical learning or interaction is when the flow of information is predominantly in a single direction, such as in a lecture, textbook, computer based instruction. Conversely, in a conferencing, collaboration or brain storming environment the information flow is symmetrical; that is to say, the information flow is evenly distributed between learners and instructors (P.13).*

From the very definitions of asymmetrical and symmetrical learning, possible to see the presence of close relation ship between symmetry and interactivity. To carry out more interaction in the learning process therefore, symmetrical delivery system is quite vital, whether synchronous or asynchronous.

In general, instructional designers or institutions for distance education ought to use a combination of various media delivery technologies (based on their synchronous/asynchronous, and symmetrical/asymmetrical nature) to meet the stated learning outcomes. Because, as Rowntree

(1992) strongly affirmed rarely can one medium (technology) provide every thing that a learner needs in a learning program of any duration.

2.6. The Status of Utilization of Different Instructional Media Forms

2.6.1. World Context

It is crystal clear that, distance education relied heavily on versatile instructional media forms which are used to promote students-teacher and student-student interaction and provide the necessary concepts, skills, and values to the learner at a distance (Mc Isaac and Gunawardena, 1996).

From historical perspective, Bates (1988) explained that only few years ago most distance education systems dependent almost entirely on correspondence teaching backed up by face-to-face tuition in groups or they relied on broadcast series aided by a textbook and possibly some face-to-face tuition. But now for Walker (1993) the range of media available and used by distance education institutions is suddenly bewildering.

However, there is a great deal of disparity in terms of these different instructional media (media technologies) utilization among countries, distance education institutions, and distance learners through out the world. For instance, as Picciano (2001) strongly argued, due to many reasons in most economically wealthy nations video and computer based media are greatly available and utilized. Conversely, even presently mainly distance education in the third world at primary, secondary, and

Australia , New Zealand, Japan, and several South-East Asian countries (Bates, 1988). However, both television and videocassette players access at home is very limited in most developing countries even though now at increasing rate (Manjuika and Reddy, 1996). Therefore, those distance learners who have a better access to such technologies, have a great chance to learn more things in concrete, attractive, and convenient manner with the help of audio-visual media.

Unlike many developing countries, in USA and other wealthy nations an increasing number of secondary students have access to computer and communication technologies (telephone, internet, etc.) at homes that permit both asynchronous exchanges (e-mail) and synchronous mode of communication (audio and video conference, chat, etc.) at a distance (Picciano, 2001). However, such access and utilization as a whole for distance education in most developing nations is at infancy stage (Mc Isaac and Gunawardena, 1996). Undoubtedly, computer and some telecommunication technologies allow to utilize multi-media especially, for those distance learners who have access at home.

Regarding face-to-face Holmberge (1995) posited that many distance students cannot or do not want to expend their time for face-to-face sessions as long as they manage by means of non-contiguous communication. Nevertheless, since most developing countries distance institutions are mainly dependent on few forms of instructional media, learners unable to use face-to-face sessions may create a mess on the proper attainment of some course objectives.

Text media, since 1970s which was known by <the decade of print> and after the rediscovery of flexibility of print; introduction of text-processing and type setting by computer; harnessing of instructional design to course material development; and better understanding of the use of lay

2.6.2. Ethiopia

2.6.2.1. A Brief Historical Background of Distance Education at Secondary Level

Distance education in Ethiopia is a recent phenomenon, which was initiated in the 1950s with the objective of developing senior secondary correspondence course for adults working in various ministries, factories, and military organizations through a bilateral agreement of the Ethio-USA cooperative education program, and then first implemented by the former Hailie-Silassie I university from 1968 to 1972 (Eshetu,2006). After some years of interruption in 1976 the program was transferred to the department of Adult and Continuing Education of the MOE and teaching began in 1978. Since 1978 the Distance Education Division has been working out correspondence courses on senior secondary level from grade 9-12 (Flinck and Flinck, 1983).

Rumble (2003) referring to Teshome and Tilson (2003) described that in 1994 the programme was transferred to EMA and as a result of this transfer began to grow in importance. According to Teshome and Tilson (2004) in the decade of 1990s Ethiopia renewed its pledge to deliver education using different distance methodologies and moreover, distance education aimed not only at rising student's enrollment at the secondary level, but also to cover both primary and post-secondary levels of education.

However, based on the researcher's observation currently EMA's role of delivering distance education at secondary level is almost dying out. This might be so perhaps to give a wider chance for the former and newly coming private educational institutions. For Fisseha (2006); and Kitaw

(2007) presently, private educational institutions like AUC, PADEA, and few others are emerging to provide distance education program to the secondary distance learners.

2.6.2.2. Major Instructional Media were Used at Secondary Distance Education Program

It is true that distance education in Ethiopia in many ways resembled with developing nations. For instance, regarding instructional media and media technologies utilization in Ethiopia Teshome and Tilson (2004) posited that EMA for a number of years has been utilized print, radio, and face-to-face tutorials as a means to deliver instruction to its learners. However, the mixture is not equal as print constitutes the major part followed by radio and face-to-face. Now let us see the overall utilization status of these and ICTs in the field of distance education particularly at secondary level.

Print Materials

As it was mentioned before, in EMA's long history of delivery of distance education to secondary school level the main medium of instruction was text based. Print materials are organized in units structured in to modules that are broken down in to sections, and they have objectives, activities, self-assessment questions, glossaries, references, feedback on activities, and model answers to self-assessment questions (Rumble, 2003). In addition to the course modules, distance learners are also given printed guides to the radio broadcasting programs with the assumption that students will be aided better to attend the programs properly.

Moreover, Shumete (2001) described that such EMA's printed materials are prepared to be simple, motivating, and attractive; complete in terms of having the necessary topics, at different grade levels, and equipped with various examples, illustrations, tables, pictures, photographs, etc. at different grade levels.

Rumble (2003) further revealed that until the full implementation of the New Ethiopian Education and Training Policy printed course materials cover eight subjects (Amharic, English, Mathematics, Biology, Chemistry, Physics, Geography, and History) from grade 9-12. While, as the researcher has investigated from EMA's archives, after the implementation of the New Ethiopian Education and Training Policy totally nine subjects (including Civic and Ethical Education) have been given from grade nine-ten.

Radio Broadcasting

In 1971 EMA started to use educational radio (EMA, 1989 in Amare, 1995), and by the late 1990s EMA managed an extensive broadcasting infrastructure dedicated to education with 11 transmitters each with two channels covering most of the country (Rumble, 2003). Thus, for secondary distance learners who are living at different corners of the country there was a twenty minutes radio program transmission once in a week for three subjects, such as Amharic, English, and Biology (Teshome and Tilson, 2004).

However, presently, with the ebb of EMA's Distance Education Panel, the radio broadcasting service for secondary distance learners is already ceased.

Face-to-face Tutorials

Face-to-face sessions by EMA for secondary school distance students given approximately twice per semester (Teshome and Tilson, 2004). Such tasks were done by the EMA's Tutorial Panel. So, the panel appoints tutors; inform and guide them; and supervise there work. Further more, for information and training of tutors there has been produced a guide for tutors (EMA, 2003). Once the tutors chosen they are expected to lead contact lessons that the students attend at the tutorial centers regularly.

Besides, through, face-to-face meetings distance learners are invited or expected to watch or carry out various practical activities in relation with course objectives.

Information Communication Technologies

ICTs can be defined broadly to encompass all audio, audio-visual, and multi-media technologies that promote the use of information and/or communication to enhance learning. They therefore, include broadcast technologies (radio, television, satellite); projection equipment (overhead projectors, video, and data projectors); information recording and receiving technologies (video recorders, audio tape recorders, cameras, cell phones, fax machines), and computer, internet, and related technologies (Rumble, 2003).

According to Mason (1998) in Yared (2002) although the use of ICTs for distance education is not new, but especially nowadays satellites and the internet are transforming the world in to a borderless educational arena, benefiting both previously underserved citizens and education

entrepreneurs. Similarly, as to Rumble (2003) there are some additional uses of ICTs for education, such as to increase access, and to improve educational efficiency and equity.

However, even though in Ethiopia the current application of ICTs for distance education is at its infantile stage (Yared, 2002), the prospect for the increased use of such technologies is bright at different levels (Teshome and Tilson, 2004), and they forwarded the following implications to support their idea, such as

- There is already some use of world space technology, which broadcasts digital audio and data;
- The beginning of the use of teleconferencing through v-sat technology:
- The expansion of internet access to more cities and towns; etc. which will increasingly enable ICTs to be used more in support of education.

2.7. Some Major Factors Determining Instructional Media Utilization

Nowadays distance education should strongly be supported by various instructional media delivery technologies which are rapidly evolving. Nevertheless, some writer (Bates, 1995; Mc Isaac and Gunwardena, 1996; and Yared, 2002) noted that utilization of instructional media in distance education can be affected by various factors. Some of them are:

Delivery and access:- they greatly affect utilization of different instructional media for distance education at different levels. For Mc

Isaac and Gunwardena (1996) access and delivery related with the way in which the technology distributes the learning material to distance learners and the location to which it is distributed, and distance learners' access to technologies in order to participate in the learning process.

Cost:- also another important factor that largely affects instructional media utilization. As to Bates (1995) the cost of different instructional media delivery technologies alone and the cost of such technologies for course with low student numbers and those with large student numbers, highly related here under cost related factor.

Control:- it refers to the extent to which the learner has control over the medium or the medium provides flexibility in allowing the students to use it at a time and place and in a manner which suits them best (Mc Isaac and Gunwardena, 1996). So, the most controlled and flexible instructional media among distance learners can be more utilized than others which are not.

User friendliness:- the term user friendliness deals with the extent to which the technology being employed is easy to be used by the learners and the tutors too. For instance, some new instructional media delivery technologies are not as such easy to be used by students and teachers (unless adequate consultancy made by skilled persons in the filed), even though they have enormous instructional advantages. Where as, with regard to the older but more widely used communication technologies, such as print and radio, the problem of user friendliness is relatively less significant (Yared, 2002).

Interactivity:- it refers to the degree to which the technology permits interaction between the student and the material, the teacher and the student, and among students (Mc Isaac and Gunwardena, 1996). Thus,

as to Yared (2002) when the learning material evoke successive responses form the student as the student progresses through the contents of the material, with greater interactivity it will result in effective learning.

On the other hand, the use of new and emerging media technologies in distance education that foster live, teacher-student and student-student interactivity will enable distance education to play its rightful and respected role in the educational process (Barker et al., 1993).

However, Yared (2002) stated that although tremendous advancement has been made in using two-way high speed interactive distance learning communication technologies, most of the widely used technologies in distance education, such as print and audiocassettes have limited potential for interactivity.

Symbolic (Audio-Visual) Characteristics of the Medium:- in relation with the capacity of the medium for effective distance learning, this factor influencing utilization of different instructional media forms. The tem symbolic refers to the ionic, digital, and analog symbol systems of the medium. *Ionic systems* use pictorial representation; *digital systems* convey meaning by written languages, musical notation, and mathematical symbols; and *analog systems* are made up of continuous elements which nevertheless have recognized meaning and forms, such as voice quality, performed music and dance (Mc Isaac and Gunwardena, 1996).

The same authors further revealed that presently, (especially in developed countries) the instructional medium that encompasses the ionic, digital, and analog symbol systems together has been increasingly

utilizing than other which is independently consisting the ionic, digital, and analog systems.

Novelty:- Bates (1995) showed that certain distance learning technologies are being used by distance education institutions without adequate justification or detailed investigation as to their relevance and appropriateness for the distance education program they have been used. This is often referred to a novelty, which is quite influential to use different instructional media effectively.

Speed:- In a society subject to rapid change, courses need to be put on quickly and easily updated. Technologies vary in their capacity for speed of implementation and flexibility in updating (Yared, 2002). So, technologies which have the ability to bring students the latest information on research, social events, new development in science and technology, and government policy changes are currently more utilizing in many distance institutions (Bates, 1995).

Organizational Issues:- Successful application of media technologies in distance education require the existence of appropriate institutional organization and adequate organizational preparation either to entertaining well the available media technologies, for instance through orienting learners and training tutors or for managing changes that could result from the introduction of the new technology (Keegan, 1990; Moore, 1990; and Holmberg, 1996 in Yared, 2002). Therefore, in a circumstance that organizational readiness is weak, efficient instructional media utilization could never be attained.

Further more, in general terms Yared (2002) categorized the major factors that determine the use of different instructional media delivery technologies in to two, namely national and institutional factors. Under

institutional factors he has listed mainly the already discussed concepts, such as access, cost, user friendliness, interactivity, novelty, speed, organizational issues, and others. Where as, factors like the status of the communication infrastructure in the country; the place and role of distance education in the national education system of a given country; and the status of the interactive distance learning industry in the country can be seen under the national category (Yared, 2002).

In general, all the aforementioned and other unmentioned factors are responsible to determine the degree of various instructional media utilization in distance education institutions at different levels. To sum up, in this regard Picciano (2001) recommended that educators should attempt to use the media technology that will best meet their goals and objectives that is most readily available and that will be educationally sound as well as cost effective.

Chapter Three

Research Design and Methodology

3.1. Research Design

Educational research is the application of the scientific approach to the study of educational problems. Thus, educators usually conduct research to find a solution to some problems or to gain in sight into an issue they do not understand (Ary et al., 2002).

To achieve this broad goal, therefore, as to Mulugeta and Amanuel (2000) there are a wide diversity of epistemological routes leading to an acquisition of a body of knowledge of educational issues.....broadly, these routes (methodologies) of inquiry lead to have a dualism of research traditions i.e. quantitative and qualitative. Hancock (1998) attempted to differentiate both research types. For him, quantitative research is more concerned with investigating things which we could observe and measure in some way and such observations and measurements can be objective and repeated by other researchers, while, qualitative research refers to studying human behavior and the social world inhabited by human beings.

When we are specific to the qualitative research, it is important to see some of its major characteristics to make it more resonated. In line to this, some writers (Gall et al., 1996 in Desalegn, 2000; and Creswell, 2003) mentioned that qualitative research:- takes place in the natural setting; uses multiple methods that are interactive and humanistic; is emergent rather than tightly prefigured; is fundamentally interpretive; and others.

Regarding the types of qualitative research, Ary et al. (2002) listed down eight of the most widely used approaches. They are: ethnography, case study, document analysis, naturalistic observation, focused interview, phenomenological study, grounded theory, and historical study. Even though they are under the same umbrella and overlap in many aspects, there are also several other issues that make them different.

For instance, case study, which is a deal in this paper, can be described as an intensive investigation or an in-depth examination of a single or small number of units, the single unit may be of a person, an organization or an institution (Dawit and Alemayehu, 2002). Furthermore, cited in Solomon (2004) Yin (2003) divulged that case study is a preferred strategy when, how, and why questions are being posed; when the researcher has minimum control over the events; and when the focus is on contemporary phenomenon with some real life context.

Therefore, based on the above views given, the researcher has preferred to study the issue raised regarding instructional media vis-à-vis distance education through qualitative-case study design with the assumption that it could help to well-investigate and show in-depth the state of the individual points raised under the study.

3.2. Rationales for Selecting the Research Settings

As it was indicated before, the research settings were AUC and PADEA at their Addis Ababa study centers. The institutions were selected due to several reasons. Some of them were:- AUC and PADEA are relatively among few of the one that have better experience in providing distance

education at GSS level. Secondly, the researcher had been served as a tutor for GSS distance education program in both institution, as a result the researcher believed that he had better acquaintance to the institutions and the program as well. And lastly, due to the fact that both institutions were quite cooperative and willing the study to be conducted.

Moreover, the study was conducted at the Addis Ababa study centers. This was owing to the research design i.e. qualitative-case study which requires detailed investigation of issues by taking a single or few cases. If one takes many study centers, the study will be less manageable and will deviate from the very nature of what case study is. Beyond this reason, both centers accommodated large number of GSS distance students than any other centers (from the statistical abstract that the researcher found out in the institutions). Moreover, both institutions have study centers in the city Addis Ababa. These conditions initiated the researcher to deal with the issue raised at the Addis Ababa study centers.

The writer also preferred to conduct the study on the GSS level for the following reasons:

By considering the significant role of media, the government has launched a new satellite television program for Ethiopian secondary schools since 2004/05 (Ali, 2005). So, it is interesting to investigate what was going on in the counter distance education program. Furthermore, the researcher's previous experience in both institutions initiated him to be emphasized on GSS level.

3.3. Methods

Under the methods section the sample, data collection methods, and data analysis procedures employed in the study is discussed as follows:

3.3.1. Sample

In discussing the sample, descriptions made regarding the participants and the technique how they were selected.

Research Participants and Sampling Technique

It is undeniable fact that research participants have a preponderant role to realize many studies conducted at different levels. Based on this therefore, the majority of the data used in the study were gathered from both institutions' GSS distance education division heads, curricular experts, tutors, learners, and coordinators of the Addis Ababa study centers. In addition, face-to-face tutorial sessions, and some relevant written materials were also used as a source of data.

Regarding the sampling technique, Creswell (2003) posited that the idea behind qualitative research is to purposefully select participants that will best help the researcher understand the problem and the research question. This does not necessarily suggest random sampling or selection of a large number of participants and sites, as typically found in quantitative research. Therefore, each of the informants in the study were chosen purposefully with the assumption that,

- They have a better experience and knowledge in the study sites; and
- They are the right persons to give detailed and authentic data pertinent to the study.

To get these informants, the researcher made several discussions with the upper concerned bodies of each institution. Besides, the writer

himself tried to communicate with some other participants personally. Above all, their willingness was given due consideration to be included as an informant.

Totally, the researcher interviewed sixteen participants comprising two GSS distance education division heads, another two curricular experts, six tutors (from language, science, and social science streams), four students (from grade nine and ten), and at last, two coordinators of the Addis Ababa study centers. Out of the total participants and from each party, exactly equal numbers of participants were selected from each institution on which the study was conducted.

3.3.2. Data Collection Methods

In qualitative research there are a number of data gathering tools. Among these, in-depth interviews, observations, and document analysis were used to gather the necessary information for this study.

Interviews

The interview is one of the most widely used methods for obtaining qualitative data, such as subjects' opinions, beliefs, and feelings about the situation in their own words (Ary et al., 2002). Interview was the primary data collection technique used in this study. Thus, interview guides were prepared and in-depth interviews were undertaken with five different parties (GSS distance education heads, curricular experts, tutors, students, and the Addis Ababa study center coordinators) in the form of one-to-one encounters by using semi-structured interview questions (See from Appendix II-VI). They were mainly open ended that intended to provide opportunities to discuss issues in more detailed manner, and they were also pertinent to the major research questions

stated. For this interview, the protocol was prepared adhering to the major ethical principles that researchers should follow while conducing such research (See Appendix I).

All the interviews were carried out in Amharic language, which was the preference of the subjects, focusing on the main themes of the study. While interviewing the interviewees, notes were intensively taken. The notes taken were re-written carefully and then translated in to English language for analysis.

Observation

Observation was the second important data gathering tool used in the study. Observation enables to provide first hand information by observing phenomenon as they occurred in their natural setting. So, direct observations were done during face-to-face tutorial sessions based on the checklists prepared focusing on tutors' and learners' activities, the classroom conditions, and utilization of instructional media (See Appendix VII). Three full tutorial sessions were observed in each institution by considering subject streams, like language, science, and social science. This was done on December 08 and 09, 2007 in AUC; and April 12 and 13, 2008 in PADEA when face-to-face tutorials were conducted.

Furthermore, many other things were also observed in both institutions (at the Addis Ababa study centers). When the researcher believed that they were important inline with the basic research questions raised in the study.

Document Analysis

In qualitative research, written documents are quite useful to gain knowledge of the phenomenon under study. Different written materials that were thought to provide the necessary information were properly consulted. Therefore, the policy document, different guides, brochures, and text-modules were used to enrich the study.

3.3.3. Data Analysis Procedures

Data analysis is a process where by researchers systematically search and arrange the data in order to increase their understanding of the data and to enable them to present what they learned to others (Ary et al., 2002). In this study, three steps were involved in the data analysis procedures i.e. organizing, summarizing, and interpreting the data. So, after the relevant data were collected from different data sources through the major data gathering instruments, they were categorized in to the major themes and sub-themes based on their commonalities and pertinence to the stated basic research questions in a way that helped to summarize and interpret the data effectively. Then after, an attempt was made to investigate exhaustively what was there in the data and to summarize the relationships among the categories. At last, the data organized and summarized were interpreted carefully. Interpretation here involved in reflecting the words and acts of the data sources, and the researcher's personal judgments also inculcated to evaluate the cases relying up on his actual experience. Moreover, some documentary evidences were used to strengthen the findings.

In general, the researcher presented the whole analysis in the next chapter with the help of long and short direct quotations, narrative

statements, etc. rather than dealing with complex statistical techniques and procedures.

3.4. Validation Strategies

For Creswell (2003) validity in qualitative research, concerns the accuracy or truthfulness of the findings. Thus, in this study many endeavors were made to secure the credibility of the research done. For instance, the researcher, by using various data sources (multiple data gathering instruments) tried to triangulate the data obtained to develop better illustration for the themes under discussion.

Furthermore, the ethical issues, which are quite vital to get the appropriate data for the research conducted were also given due consideration. Obligations of the researchers to respect the rights, needs, desires, privacy, and confidentiality of the informants were fully exercised. Thus, such fundamental ethical principles adapted from Ali (2005) were used in all the researcher's attempts to have the relevant data from participants. To keep their anonymity for the informants and the institutions pseudo names and abbreviations were used during the actual analysis (reporting) of the data that do not refer to any one. Moreover, to validate the accuracy of the findings, the researcher had spent prolonged time in the study settings to have a good understanding of the issues under study, and there by to convey a great deal of information.

Chapter Four

Data Presentation and Analysis

As it was disclosed repeatedly before, the major purpose of the study was to assess the entire aspects in line with instructional media utilization in the sector of distance education by taking the case of GSS program in DEI1 and DEI2 with particular emphasis on the Addis Ababa study centers. To put this in to effect successfully, therefore, the qualitative-case study approach was applied. Here, the data presented following the data organization, which is strictly adhered to the major research questions set. Under each theme, in addition to the informants' points of views and theoretical underpinnings, the researcher's understanding and interpretations is shown.

4.1. The Roles of Instructional Media

It was the researcher's assumption that understanding informants' knowledge/perception towards the role played by instructional media for GSS distance education rather than answering one of the stated basic research question, it will be a specious gate to investigate deeply other important related issues and there by to forward some suggestions for better level utilization of instructional media in the institutions. Thus, the researcher tried all his best to grasp the true ideas, views or opinions of participants regarding the roles of instructional media. Now onwards the analysis will be presented interspersing with some documentary evidences and the researcher's own interpretations.

teacher-student actual dialogue that is not frequently possible in distance mode of instructional delivery.

Daniel, a physics tutor in DEI1, and Bogale, also another tutor who was tutoring chemistry in DEI2. Both of them were senior tutors in their institutions since the GSS distance education program was launched. They underlined the importance of media with respect to subjects that they were involving in tuition. Concerning this Bogale said:

> *Besides, I am giving tuition here. I am also teaching the same subject in the same grade levels in the regular programme. Therefore, I have the chance to see/compare students in both programs. However, እዚህ ጋር ያለው ይመርያብኛል i.e. the students achievement and performance here is not as such satisfactory. As to me the reason for this might be emanated from different corners. Out of which, due to the fact that the program is not being totally supported by audio, video, and other media forms can be taken as the major obstacle.....to your surprise many students are not imposition even to differentiate different chemicals simply by observing them because of the reason that I told you earlier (Interview conducted on 05 March 2008).*

Similarly, Daniel, another tutor participant also divulged the paramount importance of media for different science subjects. Moreover, he recommended that,

> *Print materials (text-modules) ought to be integrated with other media forms to deliver complex scientific concepts (knowledge) to distance learners (Interview conducted on 13 February 2008).*

To elaborate the outlooks of the aforementioned informants, for instance, Bates (1993) by taking some media (beyond text based) showed how they are used for different science subjects and distance students who are taking science courses. For him, for science or mathematics courses, computer can provide simulations and examples of complex

mathematical and physical relationships, and above all, plenty of practices in mastering mathematical techniques. Furthermore, science students require large quantities of television because of the importance of laboratory and fieldwork, and the need to show experimental evidences.

Regarding the issue raised, the last tutor informants were from social science stream. Bayou, a tutor who was giving history for about two years in DEI1. He had to say the following:

> *The role of media is not the one which is simply over looked. Media help to transmit various skills and knowledge as they are kept as attractive and interesting as possible. This can be possible when the text media are being supported by other media which have the capacity to portray many episodes to distance learners (Interview conducted on 14 February 2008).*

Chala, a geography tutor in DEI2 since three years ago. He also explained his turn as follows:

> *Utilizing different media make the self-learning process efficacious. Because, media: provide up-to-date or timely information; make vague concepts clear; and in general, media help to address sweetened lessons to distance learners be it in Geography or any other subjects (Interview conducted on 29 February 2008).*

Again, Bates (1993) more clarified that to give different social science subjects television and print can provide examples of archives, films or photographs; paintings and buildings; and dramatic and musical performance.

Furthermore, like the former informants, all student participants (Bahiru, Hayat, Tsige, and Feleke) described the mandatory role of media to aid their efforts. Their common views put as follows:

Since we are mainly apart from our teachers, the presence of various media forms undoubtedly helped to fill the gap. This is due to the fact that each instructional medium has irreplaceable roles to make us acquainted with some basic/necessary knowledge, skills or values at a distance (Interviews conducted at different times with student informants from both institutions).

In general, from the in-depth interviews made with different parties, possible to deduce that versatile forms of instructional media for distance education at any level contributed a paramount importance, such as to make learning interactive (two-way), flexible, and convenient; to facilitate the entire instructional process; and others. To concretize the fact, Verduin and Clark (1991) have noted that studying at a distance can be as effective as traditional instruction, when the media and the methods used are appropriate to the instructional tasks, i.e. students to student, and when there is teacher to student feedback. Eventually, to conclude what the researcher heard from the informants' voice with a single statement 'the role of media is irreplaceable.'

4.2. The Status of Utilization of Instructional Media

Assessing the utilization status of instructional media in the institutions under which the study was conducted was another major objective of the study. Thus, an attempt was made to gather relevant data through in-depth interviews, observations, and written materials analysis. Now, the data obtained will be presented and discussed inline to the major sub-themes.

4.2.1. The Available Instructional Media Forms in the Institutions

Presently, provision of instruction with the help of different media forms is being a contemporary trend even in many third world nations' distance institutions. Nevertheless, the situation was some how different in GSS distance education program of both DEI1 and DEI2.

Getenet, the Addis Ababa study center coordinator of DEI1 mentioned the major instructional media forms available for 9th and 10th grade students in the center as follows:

> *The institution provides text-modules for each subject i.e. Amharic, English, Mathematics, Civic and Ethical Education, Biology, Chemistry, Physics, Geography, and History. Moreover, face-to-face tutorial sessions are organized once in a term with respect to each subject given with in the allocated time which extends to 1:45 to 2:00 hours (Interview conducted on 02 February 2008).*

Azeb, another informant, was serving as a coordinator of the Addis Ababa center in DEI2. As to her, the major instructional media available in her institution were what are already listed by Getenet from DEI1. But the allotted time for tuition was 1:30 hour per a course given. This was what the researcher also observed during his long stay in the institutions.

However, in contrary to this concrete fact, the official Amharic pamphlet of DEI2 stated that.....**ትምህርት በሬዲዮና በቪዲዮ ፕሮግራሞች በመጠቀም እያስተማረ የሚገኝ ተቋም ነው** i.e. our institution is providing education with the help of radio and video programs, which was observed untrue, but it might be targeted to attract more number of clients.

On the other hand, in distance learning, the library, laboratory, and mentoring services are considered as other supporting media (Yesuf and Falade, 2005). Therefore, their accessibility in distance institutions greatly supports the works of other major media. In this regard, my in-depth interviews also extended to Getenet, the Addis Ababa center coordinator of DEI1.

> *We have big and better organized library at the main campus which is ready to give adequate service for all our students including the secondary Addis Ababa center distance learners. Besides, our center students have a possibility to use different libraries in the city. Because, they can get the cooperation letter from the center easily. Regarding mentoring, though, no one is assigned to deliver such service, learners can get whatever advice or counsel from their tutors or any office holders in the institution. However, until now we have not giving the laboratory service at all for GSS distance learners (Interview conducted on 02 February 2008).*

Azeb from DEI2 also described her account as follows:

> *To tell you the truth, in our institution the library and laboratory services are not yet available. So, our modules are prepared intentionally to fill this gap. However, our GSS students can be advised or counseled by their subject tutors and persons in the study center to solve what so ever the problems they faced during their stay in the institution (Interview conducted on 01 February 2008)..*

From the above explanations given by the Addis Ababa study center coordinators of DEI1 and DEI2, one can understand that in both institutions the instruction was almost all led by text-modules and very occasionally conducted face-to-face tutorials. Furthermore, among the major supporting media or services both institutions were not providing the laboratory service for any of the subjects given. Inline with mentoring, as the researcher also observed, every body was a counselor or an advisor in both institutions for what learners were asking for. No

one was independently assigned to give such services. Concerning the library, in DEI1 there was a library which is permitted for 9th and 10th grade distance learners. However, the researcher saw few grade ten distance students while he was visiting the library at different times. But there was no library service given in DEI2.

Concerning the same issue, the researcher posed the question to Gemechu and Beyamo to evaluate their institutions' current status with regards to the availability of different instructional media to be utilized. When Gemechu, head of the GSS distance education division from DEI1 reported:

> *It is crystal clear that in many developing countries leave alone at primary and secondary school levels even at higher levels text media occupied the predominant position. But I don't mean that most of them are totally dependent on it as it is the case here in our and other equivalent institutions..... now the world is merging together due to the rapid flow of information and innovation of versatile technologies. So, distance education institutions to be competent, they should think of different media forms (Interview conducted on 12 January 2008).*

Beyamo, *head person for GSS distance education division from DEI2* also revealed:

> *We are utilizing very few and limited forms of media available in the institution. Moreover, these media do not permit fast two-way communication between learners and tutors/the organization frequently, and do not enable learners to have up-to-date information in line to various body of knowledge (Interview conducted on 29 January, 2008).*

Generally, the fact extracted from both informants on the issue revealed that both institutions relied on few media forms even, which are less effective to make distance learners acquainted with versatile body of knowledge very easily and conveniently. Other support services, like the

library, laboratory, and mentoring were also either non-existent or given in a very limited manner more or less in both DEI1 and DEI2. This highly contradicts the contemporary trends of other equivalent institutions in other parts of the world.

4.2.2. Distance Learners' Media Utilization in the Institutions

In this part, the following points will be considered based on the data obtained through different data gathering instruments employed in the study. These are: how face-to-face tutorial sessions seemed about? in terms of tutors' and learners' activities and readiness; the physical status of tutorial classrooms; and at last, the utilization of different media in these sessions on one hand and about students' use of the available media in both institutions on the other hand.

Face-to-face tutorial sessions both in DEI1 and DEI2 were conducted on the consecutive weekend days i.e. Saturday and Sunday. This was done intentionally with the assumption that distance learners will be free and convenient to attend the tutorial programs. Tutors had at least first-degree specialization in the subject that they were giving tuition. DEI1 used its own building at the head office where as, DEI2 was utilizing the buildings of one of the Addis Ababa secondary schools to operate tutorials.

When we come to the actual face-to-face tutorial sessions, many tutors were punctual, they came to the classrooms even ahead of the exact time. This might show their readiness to share what they had with learners. Almost all of them were busy to touch the whole text-module/s rather than emphasizing on the important points with in the allotted

time. In general, tutors were playing a dominant role in the classroom instead of facilitating the instructional process. This contradicts, for instance, with the tutors' role stated in the document entitled 'A Short Guide Line on Tutoring in Distance Education' and prepared in DEI1. The booklet stated the tutors' role as follows:

> *The tutor should act as the link between the course material and the learner, initiating, and taking part in a dialogue with them..... acting as a friend and advocate the students to be active participant in the sessions (December 2007: 02).*

Concerning the classrooms physical condition, they were well equipped with the necessary facilities, and they were not totally vulnerable for external noise. So, it is possible to say that classrooms were suitable to conduct tutorials. Nevertheless, all in all the tutorial sessions were led by the tutors, and text-modules on which the program and the tutors were dependent on.

The tutorial sessions, both in DEI1 and DEI2 were attended by few numbers of students. Their number was averagely between 10 to 15 out of the total 100 to 150 registered students. Moreover, most students were carefree to respect the time. Therefore, first periods in the morning and afternoon sessions were highly disturbed by such inconveniences. These conditions obliged any one to pose question regarding learners' readiness to attend the program. Besides, during instruction almost all students were strictly engaged in listening and note taking. Only rarely they were participating in question and answering. In fact, it is expected when tutors are taking a preponderant role in the instructional process.

As far as students' utilization of the available instructional media all tutor participants from DEI1 and DEI2 also agreed up on the following statements:

Except few students, many students are not in a position to attend face-to-face tutorial sessions. As a result, tutorial sessions are in a great problem to achieve their goals. While, all students are relied on the available print materials, like text-modules and worksheets, which can be used by distance learners more conveniently (Interviews conducted at different times with tutors from both institutions).

Likewise, on the same issue raised, student participants revealed their dependency on the text-modules given for each subject. For example, Bahiru, a third term grade ten student in DEI1 put his excerpt,

Modules are my intimate friends. I can get what I want, and I can use them when I am so convenient enough (Interview conducted on 09 December 2007).

Again, all student informants agreed up on the benefits that they obtained from face-to-face tutorials, even though, most of them were not regularly attending the program. In this regard, Tsige, a third term grade ten student in DEI2 said,

I believe face-to-face tutorial is important for us. It makes vague and complex concepts clear in the modules. In addition, it enables us to differentiate important points in the modules on which the examination is rounding over (Interview conducted on 12 April 2008).

Regarding, the library, laboratory, and mentoring services, except Bahiru from DEI1, all the rest three student informants had no sufficient information. For instance, a third term grade nine student from DEI1, Hayat, explained her view as follows:

I know that there is a library in our institution. But I assumed that as if it was for students at tertiary level. But concerning the laboratory and mentoring, I have no information whether they are there or not in the institution (Interview conducted on 08 December 2007).

Even Bahiru, though, he was frequently visiting the library, he didn't know any thing about the other support services.

The New Ethiopian Education and Training Policy document considered GSS education as critical benchmark to attain further tertiary education.

> *Secondary education will be of four years education, consisting of two years of general secondary education which will enable students to identify their interests for further education, for specific training and for the world of work (TGE, 1994:14).*

Thus, to put these fundamental tasks given for GSS level education in to effect therefore, distance institutions should have efficient and sufficient media utilization. Nonetheless, from the aforementioned views and observation notes, one can say that many of the GSS distance learners relied on text-modules; but face-to-face tutorial sessions were attended by very few numbers of students. Moreover, most student participants were not utilizing the available limited support services in both institutions due to several reasons.

4.2.3. Attempts to Improve the Existing Level of Instructional Media Utilization in the Institutions

As it was underlined by many informants and underpinned by literature evidences, different instructional media have significant roles to aid distance education programs at different levels. However, both DEI1 and DEI2 had been utilizing few forms of text media and occasionally conducted face-to-face tutorials as it was during First Generation i.e.

Single Medium Based Distance Education. Thus, to improve this situation as to the GSS distance education division heads and curricular experts of DEI1 and DEI2, a lot of things were being done in their institutions. In this regard, Gemechu from DEI1 expressed his points in this way.

> *By considering the true role of different media, few months before we organized the 'Educational Support Department' independently. Among its main duties, producing different text, audio, and audio-visual based media forms; facilitating the audio-visual studio establishment; upgrading the status and access of electronic-learning to be reached all level students efficiently; and to run strongly other supportive services are few of them. Now the department is doing with all its capacity to realize its objectives. In addition, now we are also on the verge of ratifying the second strategic plan (2008-2012). I hope the plan will be supportive to deliver all our programs with a variety of media having adequate quality and quantity (Interview conducted on 12 January 2008).*

Similarly, Meressa, another informant from DEI1 also described his part,

> *Now contents and topics are being selected of all subjects given at GSS level that are believed to be presented to learners with the help of audio and video media. Then after, scripts will be written and the production will be started nearly (Interview conducted on 26 January 2008).*

While, from DEI2 Beyamo reported:

> *We have a firm stand to employ various media forms at general secondary education level. Primarily, to aid the instructional process through these media and secondly, to be competent and sustained in the market. However, such task needs detailed investigations. We are now in doing these assignments.....after the completion, our dream will be visualized (Interview conducted on 29 January 2008).*

Furthermore, Mohammed again from DEI2 said a lot about the issue raised.

Now our institution is striving in up-dating and re-touching the text-modules across all subjects given at GSS level. Undoubtedly, this makes our text-modules to be more convenient and appropriate to learners (Interview conducted on 31 January 2008).

According to the information obtained from the previous informants, in both institutions, more or less, there were activities intended to improve the current status of instructional media utilization. Especially, in DEI1 there was a department organized and a strategic plan prepared to do so. But such activities were at the preliminary stage in DEI2.

4.3. Factors Impeding Instructional Media Utilization in the Institutions

In the previous discussions regarding the status of utilization of instructional media, concluded that only few forms of media were available, and even they were insufficiently utilized in both institutions under which the study was conducted. Thus, the researcher tried his best to find out some of the major responsible factors that inhibit proper utilization of the available media on one hand and utilization of the non-existent ones on the other hand typically to the institutions out of the immense data gathered from different sources.

4.3.1. The Place of Media in the Institutions' Curricular Materials

There is a right assumption that if there is better inclusion of media in the curricular materials, their utilization will be well-facilitated on the ground. In this regard, the researcher posed a question to Meressa and

Mohammed, curricular experts, to tell him the place that was given to the instructional media in their curricular materials prepared for GSS distance education program. However, both informants argued that the exact place of different media forms was not considered or recognized in the materials. For instance, Mohammed from DEI2 replied:

> *First of all, we are adapting the GSS curriculum which is prepared basically for conventional schooling. So, to get this curriculum in a true form of distance oriented one, exhaustive involvements of experts in the field is needed. But I don't think that, it was effectively done in our institution. Thus, due to this and other factors the true place of media is over looked in our curricular materials (Interview conducted on 31 January 2008).*

In addition to the view points of the informants, the researcher got the chance to see guides prepared for writers and editors of distance learning materials both in DEI1 and DEI2. The materials were quite similar. But, regarding the audio, audio-visual, and other media forms, nothing was written in the guide used for DEI2. Where as, in the guide prepared for DEI1 entitled 'Writers *and Editors Guide' one* can see the following:

> *The content of your distance learning material and the way it is structured very widely depending on the nature of the subject matter. However, when you write the content (text) of your distance learning material, you should.....think of whether face-to-face, audio, and video support would be highly required (September 2005:03).*

Nevertheless, in the text-modules prepared for different subjects given at 9th and 10th grade both in DEI1 and DEI2, the researcher had not seen the room left for audio, audio-visual, and other media forms.

In general, out of the aforementioned discussions, one can understand the least consideration given to different media forms in the curricular materials, like guides, text-modules, etc. Thus, it is impossible to

denounce the negative contribution of this condition for the better level instructional media utilization in the institutions.

4.3.2. Factors Emanated from the Institutions

It is possible to mention several factors which were responsible for the low level utilization of media even from the wombs of the distance institutions themselves. Marrs (1995) affirmed that with out adequate administrative and organizational support, or without commitment from or significance to the institution let alone media utilization, the instructional process as a whole is at a risk of becoming a peripheral activity.

Therefore, under this category some major constraining factors, which were closely related with the institutions (DEI1 and DEI2) themselves, will be dealt with.

It is crystal clear that providing information or/and orientation priory, is the key to perform the coming tasks. Like wise, distance learners should be well oriented or informed as to how and when they are going to use the available instructional media in turn to enhance the status of utilization. Nevertheless, in this regard some problems were there both in DEI1 and DEI2.

Bahiru, a student participant from DEI1 described his view as follows:

> *I can say, there is information (orientation) given to us concerning face-to-face tutorials and course-modules, as to how and when we are going o use them. However, it is not given in organized manner rather it is done mainly through informal talks and some times by using notice posted on the board. More over, the time schedules for tutorial sessions are extremely flexible which is quite difficult for us to be coincided with the programs (Interview conducted on 09 December 2007).*

Bahiru's opinion was also shared by Hayat, another student participant in the same institution, and Feleke and Tsige in DEI2.

On the other hand, related to training Heinich et al. (1996) in Birrara (2000) posited that training is the practice of educating individuals to shape their action and equip them with necessary basic skills to be put in to use when assigned to work. So, adequate and timely trainings are needed to build the capacity of distance tutors.

Inline with this, tutor informants were asked whether or not they had taken trainings. *Fikadu's (From DEI1)* opinion was:

> *I took a one day workshop sponsored by the institution it self about the meaning of tutoring; different roles of tutors; different forms of tutorials; significance of tutor's commitments; and other related important issues. This greatly helped me to develop my own understanding and there by to run the tutorial session effectively (Interview conducted on 13 February 2008).*

Alike Fikadu, all other tutor participants from DEI1 had taken the same workshop. However, they had some complain on the workshop given. For instance, Bayou reported:

> *The training was given once for a single day..... I don't think that it was enough. Thus, trainings should be given regularly with sufficient time allocated. Because, the tutor has to be updated and informed with the newly coming media forms and methods of tuition (Interview conducted on 14 February 2008).*

While such trainings were totally absent in DEI2, all tutor participants affirmed this. For example, Chala said,

I have been giving tuition here in the institution since three years ago. But during these three solid years I have not seen any form of training given by the institution. As a result, just I am tutoring based on my experience in the regular program (Interview conducted on 29 February, 2008).

The Addis Ababa center coordinators of DEI1 and DEI2, Getnet and Azeb also shared the points forwarded by student and tutor participants with regard to the information or orientation given to learners, and trainings given to tutors.

From the data obtained, possible to summarize that firstly, the information or orientation given to learners was insufficient and mainly delivered informally. This condition inhibited learners to use the available instructional media properly and moreover, exposed them for confusion. Secondly, though training to tutors is vital to lead face-to-face tutorials successfully, especially in DEI2 the place it had granted was very minimal. Even in DEI1, the training was given once with in the last two or three years. So, this also hindered tutors to handle face-to-face tutorials and other related activities appropriately.

The other inhibiting factor can be seen in relation with the institutions' attempt to provide the available instructional media (materials) to learners and tutors. In this regard, even though, all student participants appreciated the endeavors of their own institutions, they also underlined on some problems that were occasionally seen. These include, the delay in arrival of all or some text-modules; the disappearance of worksheet papers out of the modules given; etc.

On the contrary, tutor informants from DEI2 told the researcher about the problems that the institution had with regard to the provision of the available instructional materials. For instance, as Daniel said:

In short, there is no well-established trend to provide the necessary instructional materials ahead of time, rather mostly, when face-to-face tutorial programs are approaching you might be chosen to give the course and the materials will be given to you, which is very late (Interview conducted on 13 February 2008).

However, in DEI1 tutors had full possibility to get the necessary materials far before the face-to-face tutorial sessions were going to be conducted, according to tutor participants from the institution.

In return to tutors' grievance in DEI2 Azeb, the Addis Ababa center coordinator had a lot to say,

We have regular tutors. Thus, for us it is easy to provide the materials in-time. But sometimes when new tutors are recruited the provision of such materials will be delayed (Interview conducted on 01 February, 2008).

The above discussions revealed us the presence of some inconveniences more or less in both institutions related to the delay of text-modules and worksheets to learners and other necessary instructional materials to tutors too. It is very serious. To see the clear picture of the problem you can assume a solider without having a gun in the battle field. So, this condition highly deterred the existence of proper instructional media utilization in the institutions.

Lastly, under the same category, there were also some other constraining factors originating from the overall readiness and capability of the institutions' administrative body. These were decisive especially to employ versatile media forms in the institutions.

In this regard, Gemechu, a head person for GSS distance education division in DEI1 gave his account as follows:

> *The big issue is* ባለ ራዕይ የሆነ አስተዳደር መፍጠር መቻል ነው *i.e. the creation of visionary management in distance education institutions. I know that it is not an easy task, but it is must to have it. Because, many things will be easily done when distance institutions are ready to renew themselves.....you can take the question of media, which is a corner stone for distance education programs at any level. Nowadays, only with print materials one can never be capable enough to produce competent learners to the world of work. Thus, the administrative body ought to think for prolonged institutional and national advantages, rather than sticking only with short term profit maximization (Interview conducted on 12 January 2008).*

Similarly, Beyamo from DEI2, strengthen the former informant's idea as follows:

> *Since, our institution is too young, many administrative problems are expected. For instance, lack of readiness and commitment to employ the audio, video, and other media forms is one of the major problems. Thus, the administrative body in the institution should have to see the contemporary trends in the sphere of distance education (Interview conducted on 29 January 2008).*

When the aforementioned participants' views summarized, the awareness, readiness or commitment among the members of the administrative body to employ different media forms was very minimal. So, it can be taken as another major inhibiting factor in the institutions.

In general, some visible problems in the institutions related with, the information or orientation given to distance learners; the trainings delivered to tutors; the provision of the available instructional materials (media) to learners and tutors; and the readiness and commitment of the institutions' administrative body were responsible for the low level status of utilization of instructional media from the side of the institutions.

Even if I have no the data studied in my hand, I can say from my exposure that many of our distance students at GSS level do not have an access to audio, video, and computing devises (technologies). This situation is among many factors the one that forced our institution to be late to provide instruction through different media forms (Interview conducted on 12 January 2008).

Nevertheless, in this regard, out of the four student participants three of them told the researcher their better access to the audio device either at their home or work place. Though, students' accessibility to different media delivery technologies is a universally accepted determinant factor to utilize various media forms, further studies are needed in order to clearly sort out the extent at which this factor is influential typically in the institutions (DEI1 and DEI2).

To sum up from the aforementioned discussions, one can say that lack of learners' sufficient effort/motivation/ to utilize the available media had been discouraged the institutions to have more other media forms. Moreover, students' limited access to the media delivery technologies inhibited the level of utilization of instructional media for GSS distance education program in the institutions.

4.3.4. Factors Related to Tutors

To a great extent, the success of any distance education effort rests squarely also on the shoulders of tutors or instructors (Willis, 1993). This effort can also be seen let say in conducting face-to-face tutorial sessions effectively. However, some student informants from both DEI1 and DEI2 had a complaint to make. In this regard *Bahiru, third term grade ten student from DEI1 described that,*

If it is not exaggerated....if one can read the modules exhaustively by his own, tutors' support is not as such significant right in the tutorial sessions. Here I am not generalizing for all of them but it is true for many of them. Because, they are most frequently running fast over the whole module/s. Thus, many times I will be confused and I will never be acquainted with the necessary knowledge out of their 'lecture-marathon' (Interview conducted on 09 December 2007).

Further more, Feleke, another student informant from DEI2 also revealed his views in relation with many tutors' methodology employed in the tutorial sessions. For him, their teaching method was mere presentation which was not totally attractive and participatory. He continued reporting,

Besides, they are completely dependent on modules rather than touching other related reference materials that we can't get easily (Interview conducted on 13 April 2008).

While observing the face-to-face tutorial sessions the researcher also found what were formerly explained by student informants to be true. Tutors incapability to do their various tasks efficiently, therefore, seriously restrained the presence of effective (proper) instructional media utilization in the institutions (DEI1 and DEI2).

4.3.5. Media Related Factors

From the interviews made particularly with the GSS distance education program heads of DEI1 and DEI2, some inhabiting factors to employ diversified media forms (media technologies) which are closely related with some instructional media forms were disclosed. Inline with this, Gemechu from DEI1 elaborated the issue as follows:

> *Since, the audio, video, and computer based media technologies have many technicalities, to come to these in to effect skilled human power is quite desired. Nevertheless, presently, it is our serious headache to get skilled persons to make these media properly functional in our institution (Interview conducted on 12 January 2008).*

Like wise, Beyamo from DEI2 told the researcher about some media related factors other than what Gemechu had already stated. His view reads:

> *To employ versatile media, there is a need to conduct detailed investigation in-advance. The investigation demands active involvement of expertise in prolonged time. Thus, this condition whether we like it or not delayed the viability of the audio, audio-visual, and other media forms for GSS distance education program. This is truly reflected in our institution (Interview conducted on 29 January 2008).*

From the real experience in their institutions and in the field, the previous informants posited that some instructional media forms, such as the audio, audio-visual, and computing media highly needed prolonged investigations and skilful persons to be effectively implemented. It is obvious that such challenges won't be tackled easily especially in many third world nations including our country-Ethiopia. So, this condition also greatly hampered utilization of the media mainly which were not employed in the institutions.

4.3.6. Financial Constraint

Differences in the use of different instructional media may vary from one institution to another due to factor, such as the differing costs required for various technologies (Siddiqui, 2004). Further more, since distance education is widely recognized as cost-effective than conventional

education (Moore, 1991; and Spark, 1984 in Yared, 2002) many distance education institutions are worried to be profitable especially at the very outset until they have to develop a well-established financial ground.

When we come to the case under discussion, in the interviews conducted with different informants from DEI1, the researcher had not come across with any one who considered financial constraint as a major factor hampering the institution to have better level of media utilization. This might be come from the institution's strong financial capacity which was built through its long years service delivery.

Nevertheless, the situation was totally different in DEI2. Her, the financial constraint had a pivotal place to deter the institution to use, like the audio, audio-visual, and computing media forms more than any other factors. Beyamo, the head person for GSS distance education program from DEI2 had the following to say:

> *The institution has an age of less than half a decade. Thus, the financial capacity that the institution has, could not enable us to use different media forms for GSS distance education program. Because undoubtedly, different media technologies need a great deal of financial investment (Interview conducted on 29 January 2008).*

Based on the above discussions, one can take financial constraint as another important factor that contributed a lot to distance institutions to be relied with limited media forms. However, as it was revealed before, it was not the only factor which was responsible to cause the problem.

However, this factor become more vivid if the sensitive issues, like What type of support or follow up needed? How long it is given? How it is conducted? To what extent it is delivered? and other similar questions be properly answered. But no one of the informants clearly specified this.

Eventually, it is the researcher's strong believe that the factors previously discussed were not the only ones that are responsible to inhibit the institutions to utilize the available media properly and/or moreover, to employ versatile instructional media forms (which were not in use) for GSS distance education program. Thus, if further studies conducted, the problems would more resonate. Because, once the problems are well differentiated, undoubtedly we have completed half journey towards the solution.

Chapter Five

Conclusions and Implications

5.1. Conclusions

Here, out of the massive amount of information conveyed only few conclusive remarks of the findings forwarded inline with the major themes of the study.

Regarding the role played by instructional media, all the informants underlined the paramount importance of media as a whole for distance education at any level. For example, media:- make learning interactive (two-way); provide a wide range of opportunities to learn efficiently; and entirely media well-facilitate the instructional process. Thus, no one can deny the significance of multi-media instruction in distance education be it for general secondary education, or at the grass root/upper schooling.

Nevertheless, even though media have such great functions in the sector of distance education, only few forms of media were available to be used both in DEI1 and DEI2 for GSS distance education program. They were, text-modules accompanied by very occasionally conducted face-to-face tutorials. Even, other support services, like the library, laboratory (practical work), and mentoring were either almost non-existent, or they were given insufficiently and in ill-organized/coordinated manner in the institutions. Surprisingly, the instruction highly relied up on the text-modules alone while, face-to-face tutorial sessions were attended by few numbers of students.

To alter this situation more or less endeavors were being made in both institutions. For example, in DEI1 a strategic plan was prepared, and recently 'Educational Support Department' was independently established with the aims to produce various instructional media forms other than text media; to upgrade the status and access of electronic-learning; and to run strongly other support services. But in DEI2 because of several reasons such attempts were at the preliminary stage.

Though such attempts were there, still a number of factors were there to impede the proper utilization of the available instructional media on one hand and utilization of the non-existent ones on the other hand. One of the inhibiting factors was the place of media in the curricular materials. It is obviously true that distance education ought to be supported by versatile instructional media forms. To do so, their true place has to be truly considered in the curricular materials to open the gate for the media to be utilized. However, it is impossible to say that the exact place of different appropriate media forms was genuinely recognized in the curricular materials of the institutions under study. This condition created less favorable atmosphere for the institutions to utilize different media forms on the ground.

There were also some other factors emanated from the institutions, such as unable to provide sufficient information/orientation as to how and when students were going to use the available instructional media; fail to deliver timely and sustainable trainings to tutors to build their capacity and there by to be empowered to lead the program successfully; being incapable (some times) to offer the available instructional materials to distance learners and tutors in-advance and with sufficient numbers; and at last, insufficient readiness and commitment in the institutions' administrative body to raise the existing low level media utilization.

Factors related to distance students and tutors were also accountable to impede the instructional media utilization in DEI1 and DEI2. Some of them were, like students' reluctance to attend the face-to-face tutorial sessions, and their limited access to various media delivery devices/technologies on one hand and tutors' incapability to perform their tasks successfully in the face-to-face sessions on the other hand. Likewise, media related factors also contributed a lot to the institutions to be dependent up on limited media forms. This was because of the fact that particularly the audio, audio-visual, and computing media technologies greatly demanded prolonged investigations and skilled persons, which were serious headaches of the institutions.

Financial constraint, especially in DEI2 played a pivotal role than any other factors to inhabit the institution's media utilization. Since the institution was too young, such financial related problem was expected to be there. However, this factor was less influential in DEI1, because of strong financial capability that the institution had established through its more than quarter a century service delivery. Beyond this, other factors, such as the status of communication infrastructure in the country, and the extent that the support, monitoring, and follow ups given from the concerned bodies either directly or indirectly deterred media utilization in the institutions.

5.2. Implications of the Study

Alike many other researches done, this study also intended to contribute for better level utilization of instructional media after watching the roles that media had played for GSS distance education program, and assessing the state of media utilization in the institutions

under study. Hence, at least to improve the current situation, the researcher believed to have the following implications:

- The institutions ought to grant due consideration for the better inclusion of other media forms (audio, audio-visual, and computing) than text media in the curricular materials .If it is so, the way to use versatile and appropriate instructional media forms on the ground will be opened;

- Providing information/orientation to distance learners and trainings to tutors on one hand and sufficient and timely delivery of the necessary instructional materials or support services on the other hand are the key to enhance utilization of the media available efficiently. Thus, an attempt should be made to address the information/orientation to distance students in coordinated and efficient manner; to give trainings to tutors regularly; and to deliver the instructional materials (and other support services) ahead of time with sufficient numbers;

- To improve the existing low level of media utilization in the institutions, the concerned bodies, for example the Regional Educational Bureau and others should give overall support and execute follow ups and monitoring for/in the institutions. Besides, the institutions ought to create academic collaborations with different educational institutions (in or out side the country) having better experience in media utilization.

Above all, the institutions should have to make ready themselves to cope up with the contemporary technological booms. These days, distance education at any level demands largely technological aids to run the instruction very successfully and there by to provide competent citizens to the world of work.

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Appendices:

Appendix I

Researcher's Ethical Principles and Procedures

Introduction

First of all, the researcher would like to say thank you indeed because of the full willingness that you showed me to participate in this study entitled 'Instructional Media Vis-à-vis Distance Education: The Case of AUC and PADEA'. The entire purpose is to undertake research as a partial fulfillment of the requirements of Degree of Masters of Art in Curriculum and Instruction.

Other major objectives of the study are: to find out the role of instructional medial for GSS distance education program; to examine the status utilization of instructional media in the institutions; to investigate the major factors that hampered utilization of instructional media, and at last, to forward some possible suggestions against the problem under study. Therefore, to achieve these objectives successfully relevant data will be needed form you.

The information that you are going to give will be secured confidentially and your personal identity kept anonymous. Pseudonyms will be used instead of your real names while reporting. In general, there are no risks and discomfort associated with the study to you. Nevertheless, all the genuine information that you will give can be quite significant input to produced well equipped research paper.

Major Principles and Procedures

Now let introduce you the researcher's major ethical principles and procedures as follows:

- ✓ The researcher is willing to discuss these principles with you in need of an agreed up on and amended framework. You have full right to pose any question about the study either before or during the time that you are participating;
- ✓ Participation in the research is on voluntary basis. You have the mandate to cancel your participation at any time;
- ✓ Information given to the researcher (by your will) will be treated as belonging to you, and it can be used only with your permission;
- ✓ Observations and interpretations made by the researcher will be treated as belonging to him;
- ✓ You have the authority to permit or refuse the data collection in any form. You can edit or change the data that you will give in any form;
- ✓ Except for the purpose of professional collaboration in the project, no data arising from interviews will be disclosed in any form to third parties with out your explicit and prior consent. When data are shared for the purpose of professional collaboration these protocols and procedures apply to all those involved in that collaboration.

Thank you! For your full cooperation

Cherinet Aytenfsu Weldearegay

Appendix II

Guides to Interview with the Heads of GSS Distance Education Division.

1. How do you describe the role of instructional media for GSS distance education program?
2. How do you evaluate your institution's current status with regards to the accessibility to different media to be utilized?
3. What attempts are being made to improve the status utilization of instructional media in your institution?
4. What are the major factors you think that could affect instructional media utilization in your institution? Relate your answer with organizational, administrative, or attitudinal, etc. aspects.
5. What would you like to suggest to improve the status of instructional media utilization in the institution?

Appendix III

Guiding Questions for Interviewing Curricular Experts

1. How do you explain the place of instructional media to fulfill different course objectives in distance learning? (Particularize your answer with GSS distance education program).
2. Is there any attempt in your institution to improve the status of instructional media utilization? Pleas Justify.
3. How do you evaluate the place given to instructional media in the curricular materials of GSS distance education program in your institution?
4. What do you recommend, for the better level utilization of different instructional media in the institution?

Appendix IV

Interview Guide for Tutors

1. How do you describe the role of different instructional media in your subject tutoring?
2. How (much) distance learners utilized the available instructional media in the institution?
3. Have you ever taken trainings, workshops, seminars, etc. on as to how you are going to lead face-to-face tutorial sessions effectively? Please Justify.
4. How are you going to describe the provision of the available instructional media (materials) to you?
5. What do you suggest for the better instructional media utilization in your institution?

Appendix V

Interview Guide for Learners

1. Do you think that instructional media are important for your distance study? Justify.
2. How (much) do you use the available instructional media and other support services? Please elaborate.
3. Do you get information/orientations about when and how you are going to use the available instructional media?
4. Do you get the available instructional media in advance? With sufficient numbers?
5. How about your access to different media delivery technologies (devices) at home or work place?
6. How do you evaluate the overall aspects of face-to-face tutorial sessions?

Appendix VI

Guiding Questions for Interviewing Study Center Coordinators

1. List out the major instructional media and other support services available in your center (institution)?
2. Does your institution give the necessary information /orientations to the students, and trainings to the tutors inline with use the available instructional media effectively?
3. Are the available instructional media (materials) accessible to learners and tutors in advance? With sufficient quantity? Justify.
4. Can you mention some of the main factors that hindered instructional media utilization in your institution?
5. What do you recommend to improve the current status of instructional media utilization in the institution?

Appendix VII

Face-to-face Tutorial Sessions' Observation Checklist

- Institution _____
- Subject Observed_____
- Grade Level and Term_____
- Total No. of Students Registered_____
- Number of Attendants_____
- Duration_____
- Date_____

No	Things to be observed	Poor	Satisfactory	Good
1	Punctuality and time management of tutors			
	Tutors readiness(motivation)			
	Tutors' facilitation role in the tutorial sessions			
2	Learners' Punctuality			
	Learners' readiness			
	Learners' involvement in asking, answering, doing ,etc.			
3	Availability of necessary facilities in the tutorial classroom			
	Classroom suitability			
4	Different media forms (audio, audio-visual, and computing) utilization in the tutorial sessions			