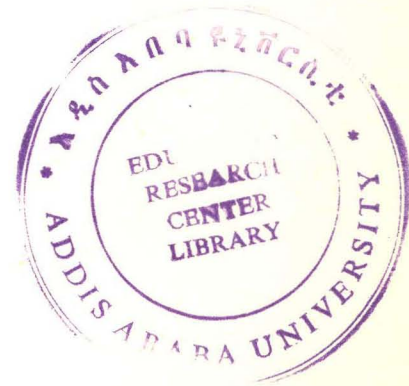


**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATES**

**THE UTILIZATION OF SOCIAL STUDIES
EDUCATIONAL RADIO PROGRAMS IN
THE SECOND CYCLE PRIMARY
SCHOOLS IN AMHARA REGION**

ABERE MEKURIA



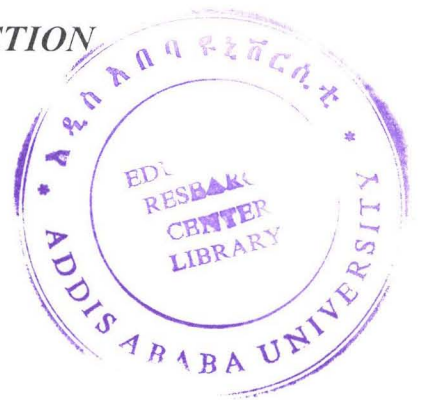
JUNE, 2004

**THE UTILIZATION OF SOCIAL STUDIES
EDUCATIONAL RADIO PROGRAMS IN
THE SECOND CYCLE PRIMARY
SCHOOLS IN AMHARA REGION**

*A THESIS SUBMITTED TO THE
SCHOOL OF GRADUATE STUDIES
ADDIS ABABA UNIVERSITY*

*IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF ARTS
IN CURRICULUM AND INSTRUCTION*

**BY
ABERE MEKURIA**



June, 2004

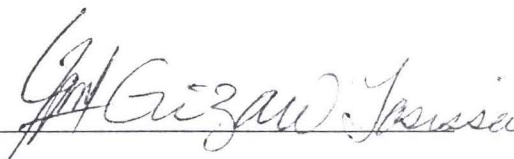
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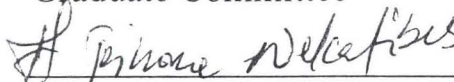
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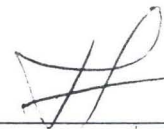
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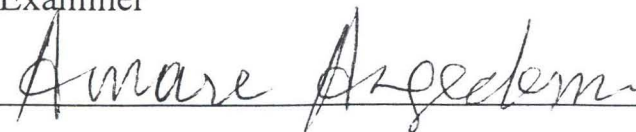

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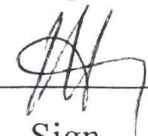
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Abstract

This paper examined the extent of SSRP utilization at SCPS in Amhara region and identified the factors that influence the practical use of the programs in the class room.

Multi-approach (both quantitative and qualitative research design) forms the present investigation. By the help of criterion purposive sampling techniques 3 sample zones, 6weredas and one special zone, and 33 schools were selected. The sources of data were 1320 students, 23 teachers, 6 media teachers, 14 directors, 5 wereda education office heads, 5 formal education desk heads (wereda), 2 social studies radio program producers, 2 program & technical team leaders and media center heads each, educational bureau head and 48 classes during reception. Questionnaire, interview and classroom observations were used as data collection instruments.

The results showed that there is no uniformity in using radio programs, i.e., in some schools SSRP are not used at all, in all of the schools there is no full use of programs and in most of the schools programs are partially used. Thus, utilization of programs does not satisfy the standard set by EMA. Besides, the degree of utilization is impeded by: (1) quality of the radio programs , mainly repetition of text book ideas as it is, insufficient pause to respond & less engaging radio formats, (2) technical factors like less audibility of the broadcasts, lack of maintenance service and absence of antenna, (3) lack of commitment of personnel at all levels. Thus, Education Bureau & media center's follow up mechanism was weak; it didn't exceed more than broadcasting the programs. In turn school directors give little attention to it. Classroom teachers were also less committed to perform before, during & after broadcast activities properly. (4) lack of support service mainly shortage of radio sets & their poor reception quality, power, radio teacher's guide, inability to synchronize broadcast schedule with schools time table in which two or three sections were crammed under tree shade, presence of untrained personnel on radio utilization, absence of participation of teachers in radio content selection in most of the schools.

Finally, recommendations are made to alleviate the problems.

ABBREVIATIONS

ANRS EB	Amhara National Region State Education Bureau
AR EB	Amhara Region Educational Bureau
BDEMDECC	BahirDar Education Media & Distance Education Coordinating Center
DEMC	Dessie Educational Media Center
DEMM	Department of Educational Mass Media
GEMC	Gondar Educational Media Center
EMA	Educational Media Agency
ETP	Education and Training Policy
IRI	Interactive Radio Instruction
SCPS	Second cycle primary schools
SNNP	Southern Nations and Nationalities People
SPSS	Statistical Package for Social Science
SSRP	Social studies radio programs
TGE	Transitional Government of Ethiopia
TTI	Teachers' Training Institute
UNESCO	United Nation Educational, Scientific and Cultural Organization

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

One of the most reasonable ways to provide quality education is to prepare an atmosphere well organized with educational facilities. Among other facilities the use of media is essential for teaching-learning strategies, in order to improve the efficiency as well as effectiveness of the process.

Scattered population, limited government funds, insufficient teachers, insufficient training, and other factors that characterize the developing countries necessitate the use of mass media especially radio. These hampered such nations to ensure a high standard of education. In practical terms for such areas a radio service is more attractive than a television service, especially at the primary school level where the school population is more numerous and widely scattered (Halesworth, 1971; Tilson, 1994). Radio is a relatively cheap technology with a very extensive reach. As a rule of thumb, the poorer and more rural the area, the more important a role radio plays (Mead, 2001:5).

There are more reasons for the importance of radio education in developing countries. It communicates facts, offers a range of experiences far beyond the capabilities of the teacher in the classroom, draws a wide range of creative talent and can blend actuality, and can present material that has been packaged from the resources available at the production center (Zeitlyn, 1992; Halesworth, 1971).

According to Thompson and Nwaerodu (1987) radio has been used extensively as an educational medium in developing countries. For instance Thailand, to teach mathematics ; Mali, for literacy training ; India for rural development; Kenya, in support of correspondence courses; Botswana, for civics education, Dominion Republic, in support of primary education; Mexico, for literacy training and other programs; Nigeria , for nutrition education; Nicaragua , for health education; and Paraguay, to offer primary school instruction.

Similarly, the educational system in Ethiopia has an extensive transmission network and one of the most experienced educational broadcast systems in Africa (MOE, 1999:9).

In Ethiopia radio broadcast for schools was initiated in 1969 in the province of Menagesha (Abdu and Ayalew, 1973:12-13; Tsfaye, 1990; Petros, 2002:8). The broadcast extended up to the national level from 1980-83 (Asresse, 1988).

Currently, education and training policy document clearly stated to use educational technology under various articles. One of it is cited as follows:

... in order to promote the quality, relevance and expansion of education, due attention will be given to the supply, distribution and utilization of educational materials, educational technologies and facilities (TGE,1994).

This is an indication that due attention has been given by the education and training policy to employ educational technology to attain quality and relevant education.

Educational Mass Media Agency was responsible to produce and broadcast educational radio programs for the nation as a whole until 1995/96 (EMA, 1995). After that year, it became the task of Regions to produce and broadcast their own educational radio programs for primary schools due to the decentralization policy the country follows.

The Amhara region with four radio production studios and four transmission stations is realizing the autonomy given to it due to the decentralization. Each radio station in the region has two transmitters of a ten and one kw (kilowatt). Having these facilities the region is involved in the production and broadcasting of educational radio programs for primary schools. Among the programs that are broadcasted, social studies comprise an important part.

As far as state of utilization of radio programs in Ethiopia is concerned, there are no extensive research works (Petros, 2002:10). Besides, since decentralization has started there is no single study that shows the conditions of utilization of SSRP produced and broadcasted in the Amhara region. Thus, the need to conduct the new research has its ground on the idea of decentralization. Diversity of conditions confronts each region, so it is most likely impracticable to use the research results of one region to the other.

Moreover, the numbers of qualified teachers in SCPS are few in Ethiopia. Tilson and Kelemu (1998:83) asserted that 70% second-cycle primary school teachers in Ethiopia are unqualified. In the same vein Amhara Regional Education Bureau indicated that out of 5861 second-cycle primary teachers 4263(73%) are not holding teaching diploma in the region (ANRS EB, 2004:47). Where there is scarcity of qualified teachers educational radios can play a lot to alleviate such a problem (Chain, 2003:3).

In this regard, the researcher observed (from his experience as a social studies educational radio program producer) constraints to the effective utilization of radio programs in Amhara Region, i.e., in some schools he observed complete absence and shortage of radio teacher's guide, lack of radios, feedback and maintenance problems. This calls attention for investigating the problem.

The purpose of this study is to fill the gaps by analyzing the effectiveness of utilization and identifying problems that hinder utilization of SSRP at SCPS in Amhara Region. The paper addresses key issues like full utilization, quality of program, technical and radio support services, commitment of educational personnel in facilitating the radio programs utilization.

1.2 Statement of the Problem

The education and training policy document (TGE, 1994) has paved the way for the regions to produce, distribute and utilize educational technology by themselves. This issue is stated under sub-article 3.82 as follows:

... educational management will be decentralized to create the necessary condition to expand, enrich and improve the relevance, quality, accessibility and equity of education and training.

The intention of this policy is to improve the relevance of education and to represent the needs of the local students in the classroom. Accordingly the Amhara Region Education Bureau produces broadcasts and utilizes its own educational radio programs for primary schools since 1989 (BDEMDECC head). However, no study has been made on the proper utilization of SCPS SSRP produced and broadcasted by the region itself for the last seven years.

Therefore, the researcher is interested to examine the extent of utilization and to investigate factors that deter the effectiveness of utilization of the programs.

Hence, the researcher has formulated the following leading research questions that will be answered through the study.

1.3 Research Questions

1. Is there full use of SSRPs at the SCPS in Amhara Region?
2. What are the conditions that influence the utilization of SSRP at SCPS in Amhara Region?
 - 2.1. Is the quality of SSRP of SCPS in Amhara region affect the appropriate utilization?
 - 2.2. Do the technical supports affect the utilization of SSRP in the SCPS in Amhara region?

- 2.3. Do the educational sectors at bureau, program production centers and weredas committed to support the effective utilization of social studies educational radio Programs in the SCPS in Amhara Region?
- 2.4. To what extent do the school principals, school media coordinators and teachers committed for the effective utilization of SCPS SSRP in Amhara Region?
- 2.5. Are the students of SCPS in Amhara Region interested at the SSRP?
- 2.6. Is there a radio support service problem (teachers' guide, radio sets, power supply, participation in planning, and utilization training) at SCPS in the region?

1.4 Objective of the Study

The objective of this study is to explore and describe the utilization of SSRP in SCPS in Amhara Region; and to identify the factors that influence the practical use of the programs in classrooms.

Specific Objectives of the study are the following:

1. To identify the number of social studies educational radio program used in classroom.
2. To analyze the impact of quality of SSRP to the effective utilization.
3. To asses the extent of technical service provided for effective radio utilization.
4. To examine commitment of educational personnel at all levels in facilitating radio utilization.
5. To find out the condition of radio support service (radio set, teacher's guide, training, participation of teachers in planning etc.) for effective radio utilization.
6. To asses the impact of interest of the learners in radio utilization.
7. To examine and set strategies that could serve for effective radio programs utilization.

1.5 Significance of the Study

Proper utilization of SSRP in the Amhara Region has not been studied since decentralization. Thus, this study becomes significant because it will provide baseline data concerning the utilization of educational radio programs in the study area. This finding may support for educators who plan to use radio to improve educational quality.

It is also anticipated to initiate the Educational Bureau and wereda education offices and schools to pay attention for a large media resource available in the region that can be used to attain primary education for all, which is one of the goals of ETP. The strategies to be investigated in this study can be used as a guide line to educators to facilitate effective radio utilization.

The study is believed to build awareness of social studies radio program producers in producing quality radio programs. It also helps them to conduct research. Besides, it helps for teachers' colleges, to conduct training with emphasis to effective radio utilizations.

1.6 Delimitation of the Study

The Scope of the study is delimited to assess the effectiveness of SSRP utilization at SCPS. Both Government and Non-Government schools are considered under the study. Its geographical boundary is also delimited to three zones (West Gojjam, North Gondar & Bahir Dar special zone) in Amhara Region. Hence the findings & conclusions reflect the degree of effectiveness of SSRP in the region. Utilization of radio programs is affected by different conditions. However, this study deals with, the quality of the radio programs, the technical factors, the commitment of educational personnel at all levels, the interests of the learners and the radio support service (radio sets, power supply, radio teachers' guide, utilization training, participation of teachers in content selection and synchronization of radio schedule to the school time table.)

1.7 Limitation of the study

The study is limited in some respects. It is true that both reliability and validity of observation results and generalizeability of it increases when observations are made in many schools in different localities in the region. But it is confined only at two schools in Bahir Dar because of shortage of money and time. Moreover, due to the same reasons effectiveness of the program is not also investigated.

1.8 Definition of terms

SOCIAL STUDIES: are one of the subjects provided at SCPS (grade 5 -8) which are concerned with the relationships of man and its physical and social environment.

SCHOOL PERSONNEL: social studies teachers, media teachers & directors are termed as school personnel in this study.

SCHOOL MEDIA TEACHER: is a teacher at a given school who has given responsibility through selection to coordinate activities concerning educational radio programs. In this paper it is used interchangeably with the term media teacher and school media coordinator.

SECOND CYCLE PRIMARY SCHOOL: refers to schools with grades from grade 5-8.

R_1 & R_2 : now a day in most of the schools the duration of one period is 40 minutes. For the purpose of radio instruction this period is subdivided into two (R_1 & R_2). R_1 is the broadcast period that is arranged to start after five minutes of a given period begins. For instance the duration of the first period at the morning ranges from 8:00am to 8:40 am. R_1 then starts at 8:05 am and ends at 8:20 am. Where as R_2 is the broadcast period that is arranged to start after 25 minutes of a given period begins. From the above example, R_2 starts at 8:25 a.m and ends at 8:40 a.m.

URBAN: refers to all localities that have municipality. Capitals of weredas are identified as urban. It is also interchangeably used with town for Gondar and Bahir Dar.

RURAL: refers to all localities that have no municipality.

PRIMARY SCHOOL: the school that ranges from grade 1-8.

SECOND CYCLE PRIMARY SCHOOL: primary schools that range from grade 5-8.

COMMITMENT: refers to attention, readiness & willingness of personnel at all levels to facilitate, cooperate and accomplish tasks related to educational radio programs accordingly.

QUALITY OF THE PROGRAM: refers to the appealing & appropriateness of the nature of the ingredients of the script (format, sound effect, novelty, pace, logical arrangement, voice, pause, language etc.) and enriching the experience of the learner (personal enhancement).

RADIO SUPPORT SERVICE: in this paper it deals with the availability & reception quality of radio sets, power (batteries, electricity), radio teacher's guide, provision of training, participation in radio content selection, synchronizing time table.

NO USE: refers when a given school has not consumed (used) any SSRP in first semester.

PARTIAL USE: refers when a given school has consumed (used) one to thirteen SSRP in first semester.

FULL USE: refers when a given school has consumed (used) all (fourteen) SSRP in first semester.

To be more specific these words (no use, partial use and full use) are used in this study to express the number of radio programs consumed in first semester in the present academic year.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

In this section literature related to the problems are reviewed and presented under different topics.

2.1. Characteristics of Educational Radio

Radio technology was first developed during the late nineteenth century and came into popular usage during the early 20th century. Though sometimes overshadowed by television, radio represents a medium of reaching a wide geographical audience at a low production cost with proven educational results (Couch, 1997). Radio requires a sensitivity to hear the broadcast through the audience's ears. Since it is a communication through sense of hearing only that it requires a special skill in presentation that only a few possess (Halesworth, 1971).

Radio can do that the class teacher cannot. Supporting this Mohanty (1992) and Muller (1985) stated that radio can bring new or unavailable resources into the classroom. At the same time, its use does not require literacy. Radio can motivate people by building on aural traditions & stimulate the imagination better than video or television (Dhanarajan & Walker, 2000:2).

A study conducted by Mendelsohn (in Snow, 1983) stated the characteristics of radio that since radio is communication directed at a specific audience in a specific locality, listeners can personalize the experience in a manner similar to face-to-face encounters. Radio functions as a distributor to multiply the classroom, and bring information to the learner. This is to mean that radio reaches every school at different village, town, city & region within the range of transmitter at the same time

An important medium, radio will help to improve the standards of education and it should not be neglected any longer in the interest of the better quality and massive expansion of education in the country (Mohanty, 1984). Radio can support all levels of education, both for in school and for out-of-school learning (Tilson, 1994:2884).

Radio has an advantage of improving educational quality and relevance; lowering educational costs; and improving access to educational inputs particularly to disadvantaged groups (Adams & Massey, 1995:256; Jamison & McAnany, 1978).

Some of the limitations of radio for education are that interaction is limited; instructor feedback and clarification is generally unavailable; the instruction is uninterrupted and not review able;

the pace of the lesson is fixed for all students; note-taking is difficult; and that time for reflection on the content is minimal (Vyas, Sharma and Kumar, 2002; Havelock and Humberman, 1977). To overcome these drawbacks, preparation, supporting materials, and follow-up exercises are recommended when possible (McIsaac and Gunawardena, 1996; Mcleish, 2000:8).

2.2. Approaches to the Use of Educational Radio

Anzalone, 1991 (in Teshome, 1998:15) stated that there are at least three major approaches to use formal educational radio when the objective to use radio is to improve educational effectiveness: Supplementing instruction, direct teaching and complementing instruction. When the goal is to improve educational efficiency, it is further pointed out that two major strategies have been so far common: enlarging the school and lowering the cost of schools. Supporting this idea Jamison and McAnany (1978:29) listed four possibilities of alternative uses for technology: (1) enrichment of learning; (2) direct instruction; (3) extending in-school education; and (4) distance learning.

Supplementing instruction is also termed as enrichment of learning. Enrichment programs are supplement to the curriculum rather than being an integrated substance of the curriculum (Tesfaye, 1998). According to Jamison and McAnany (1978) such approach is easy to organize and concerned in the provision of occasional lessons or experiences that the classroom teacher would find difficult to provide. It is to mean that in such cases educational radio has the advantage of teaching subjects in which classroom teachers are deficient & untrained. The study conducted by U.K. Open University has demonstrated that this approach favors slow learners (Tripp & Roby, 1996).

The concern of direct instruction (interactive radio approach) is to carry the major portion of the instructional burden in one or a few subjects (Jamison & McAnany, 1978:29). This approach replaces the classroom teacher (Tesfaye, 1988). As a result students are required to listen to the radio program without the assistance of the classroom teacher.

Complementing conventional instruction according to Anzalone (in Teshome ,1998:17) involve the use of radio in conjunction with the existing instructional methods and materials for a particular subject to provide alternative & direct support to specific instructional objectives.

Enlarging the school allows instructing large number of pupils by using radio without increasing the number of teachers to improve the efficiency of education (Teshome, 1998: 18).

The focus of altering or extending the schools to the use of radio is "establishing new schools at lower costs than could be achieved if conventional schools were to be opened in the same

communities by using radio'' (Teshome, 1998:18). This approach to Jamison and McAnany (1978) is termed as extending in-school instruction, in which it focused on providing direct instruction in enough subjects so that a qualified teacher can be replaced by a monitor with little or no more education than the students. This was targeted to serve un reached regions.

Distance learning becomes a convenient and practical for use due to the popularity, availability, and low cost of radio. It is mostly used in combination with other media, such as with print medium followed by face-to-face teaching (Vyas, Sharma and Kumar, 2002). Distance learning is considered as an alternative to conventional teaching Bates (in Teshome, 1998). Students learn subject content from learning manual, listened to the radio program and came to meeting place (tutorial class) to do necessary learning activities with others according to the curriculum.

2.3. Effectiveness of Educational Radio

The history of the use of radio in education is long; there is a plethora of empirical data concerning its effectiveness. Developing countries may be more able to attain real gains in educational effectiveness through radio than through television since their resources are not so great (Armsey and Dahl, 1973:54; Tripp and Roby, 1996).

According to Teshome (1998:192) a number of promoted students at schools regularly used radio broadcasts is more than the non-regular radio broadcast users. In addition to this his finding indicated that the degree to which teachers estimate student learning is higher in regular radio using schools than in non-regular radio using schools. This indicated that an important medium, radio will help improving the standards of education and it should not be neglected any longer in the interest of the better quality and massive expansion of education in the country. The effectiveness of radio is also realized in its potential to break the traditional learning model, which is entirely dependent on the teacher, textbook and chalkboard Paine and McAra (in Hallack and Miokosaito, 1994). This is one of the reasons that radio is regarded as important educational technology.

Robson (1973) based on a number of pilot experiments reported that children who completed the special evaluation pre-and post-tests, but did not listen to the broadcasts, made no significant improvement in test scores. Children who listened showed substantial and highly significant gains.

The analysis made on the effect of exposure to radio on mathematics achievement, on the Nicaragua Radio Mathematics project, the results show an even more dramatic difference in

favor of the radio students than the control group. The radio students performed a full 1.26 standard deviations better on the post test than did the controls Searle, Matthews, Friend, and Suppes (in Jamison and McAnany, 1978:40)

Moreover a number of studies have looked into the effectiveness of radio education-particularly the approach called "Interactive Radio Instruction" or IRI. Primary goal of IRI is improving the quality of education. It began as a tool to counteract low levels of teacher-training, poor achievement among learners & limited resources (Mead, 2001).An impressive result is reported by Bosch (1997). In her report, " IRI: Twenty-three years of improving educational quality," the average score of second graders using "Radio Math" jumped from 47% to more than 66% while the mean score of the control group was 35%. Meanwhile a 1995 study from South Africa showed that students who received between 34 and 66 " English in Action " lessons improved by 13%while students who received more than 66 programs improved by 24 % (Mead, 2001:5).

Broadcasting social studies by the help of radio has long history in the world. For instance history & Geography were broadcasted by BBC in 1924 (Mohanty, 1992:8). Based on research result on an in-depth study of one series of secondary school history programs and their attitude changing effects in Kenya (Thompson, 1977:43-44) suggested:

Specific attitude changes could be induced in secondary students by the medium even in situations where these changes conflicted with attitudes of the teachers themselves... conversely it indicated that radio could be used to correct prejudiced attitudes of the teaching force.

Concerning utilization of different subjects by teachers in Sweden (Aman, 1977:51) asserted that numbers of teachers that utilize social studies and natural science radio broadcasts were lower than other subjects.

An experimental investigation conducted on the use of radio-vision along with some other techniques for better teaching of Geography at the secondary level in India, indicated that the pupils achievement in geography lessons imported to them is quite high. The broadcast was supported by appropriate real pictures and teaching materials and it was interesting and effective (Sudame, Biswal and Sahoo) (in Mohanty, 1992:31)

A research result from three consecutive years test scores proved that the average rate of student promotion in social studies is greater in the regular radio user schools than non-regular radio users (Teshome, 1998:172-137).

DEMM (1987:20) also concluded and reported the results that the scores of post-test were significantly greater than scores on the pre-test on learning of Amharic, English, Science and Social Studies through radio. Particularly, the difference of post-test from pre-test is highest on grade 5 social studies.

In summary, as with other media, radio instruction has been found to be at least as effective as conventional. Under certain circumstances, such as when conventional instruction is inadequate, the radio can be a case of improved learning.

2.4. Factors that Affect Radio Program Utilization

Utilization is defined as “The actual use of media for the purpose of instruction to bring about specified changes in learners” Brown (in Hailu, 1988). To achieve effective learning from media in general and radio in particular the involvement of personnel and materials at all levels is inevitable. In this regard utilization is essentially a practical organizational aspect of media use, equally involving officers in the center, the supervisory force and those in charge at receiving points CET, 1973 (in Asresse, 1988; and Tenkir, 1998).

The target of radio utilization is to improve the learning situation of the audiences (either pupils at classroom or adults at their home or listening center). Thus effectiveness of utilization is not only studied at receiving end but also at media center where the program is produced and broadcasted. This shows that linkage from the two directions facilitate effective media utilization.

Radio is a tool of considerable power but the full potential of the tool is only effectively utilized if the sender (media center) and the user (audience at school or listening center) understand how best to use it and create favorable conditions under which utilization to take place. Being aware of this, thus, the present review on radio utilization focuses on issues that affect the effectiveness of radio utilization. Such factors are: quality of program production, technical factors, commitment of educational personnel and radio support service. Without meeting these requirements, educational radio programs can hardly be effectively used in a teaching-learning situation.

2.4.1. Quality of Program Production

Program production can be seen from two angles. These are the studio production and the production management (Teshome, 1998:24). The former to take place varieties of activities should be performed. Some of these are script writing, editing, rehearsal and recording. The program is then ready to be aired. The production management makes decision on the type and

total number of programs to be produced, indicating the duration of production and preparedness for transmission (1998).

Qualitative aspects of program production are not easy to measure (McLeish, 2000:260). One of the reasons for this may emanate from disagreement in defining quality of program production. Bates (1984) argues to define it based on the needs and interests of the audience. Arnove (1976) & Young et al. (1980) (in Tesfaye, 1990) also defined quality in different ways. For instance, Arnove (1976) (in Tesfaye, 1990) define from the interactivity nature of the program among students and teachers. Whereas Young et al. (1980) (in Tesfaye, 1990) see it from the programs contribution to the improvement of teaching methods.

In program quality at least some of the following will be prominently in evidence:(1)Appropriateness - to meet the need of the learner by considering his background; (2) Creativity - newness & logical arrangement of the program; (3) Accuracy - truthfulness & honesty of the program;(4) Holistic – understandability to the sense of reason & appeal to other senses (pictorial, Imaginative);(5) Personal enhancement-enrich the experience of the learner; and (6) Technical advance-innovative production method or the way in which the audience is involved (McLeish, 2000 : 259-260).

The contribution of quality of the program production for utilization is that, low quality of programs will produce marked decline of interest among the learners (Pritchard, 1973:99; Edington, 1988:169). If the case is this the listeners mentally or physically will switch off the receiver. Thus utilization will become a failure (Sharma, 1994:398).

First of all to maintain the quality of the program it is better to think of the script. In this regard King (1971); and Roberts (1973:215) indicated that the heart of radio program is script. A poor script will harm a program, no matter how good the techniques of production, no matter how stimulating the ideas, no matter how much time, effort and expense have been put into accompanying support material (Roberts,1973). This tells us to pay more attention when we write a script. The ingredients of script-format, sound effect, pace, logical arrangement, voice, pause, language etc. are some of the factors that can make the radio program to be appealing and attractive to the learners and teachers when they are well organized and recorded. All these together give radio the ability to stimulate the mind's eye of each individual listener to see with vivid intensity his own private vision. After all, if the ingredients of radio program do not at least partially reflect our own sense of reality, the program will almost certainly fail to hold students attention (Roberts, 1973:214).

Formats refer to the method of radio presentation. There are different radio formats. These are (1) radio-talk-which is equivalent to lecture method, (2) dialogue,(3) discussion (4) drama, (5) drill etc (Tenkir,1998;King 1971). Effectiveness of the programs is affected by the mode of presentation (Schramm, 1977). In this regard research findings indicated that most children expressed a preference for dramatization of the program since it stimulates class discussion or broaden the range of reading interest (Kent, 1977:37; Hawkrigde & Robinson, 1982:23). Drama has conflicts in it (Dancyger, 2001:3).Our life is also full of conflicts. This is also the other reason why dramatized radio program attracts students' interest. On the other hand the mode of presentation such as quiz at the end of program thrown in for the listeners may lead to greater audience participation (Narian, 1995:141).

Using combined radio formats in a lesson is also considered crucial to improve the quality of educational radio programs. For instance Keye & Popperwell (1992:58) argued that the variety of formats in a radio program refreshes the ear. In this line (Tilson, 1994:2886; Zeitlyn, 1992:97) also indicated that a variety of programming formats is one of the strengths of good programs. Appropriate formats are those that engage students during broadcasting (Ibid). Such format is a two-way communication, which involves the pupils in learning activities either orally or physically. But it is impossible to get direct feedback from radio broadcasting at least immediately (Asgedom, 1996).

Engaging students to interact can be achieved by creative script writers who know their audience and the medium very well. In general teaching methods (radio formats) and production techniques should be carefully chosen to suit the given subject, type of audience, local traditions and customs (Postgate and Waniewicz, 1967:403). But it does not mean that one radio format is more than the other.

Besides, appropriate sound effects could be used to reinforce words so as to keep audience attentive and make the program alive (Mott, 1993; Lord, 1991; Siegel, 1992; Ball, 1974). Research conducted in Kenya indicated that clear voice provided life for the broadcast (Ball, 1974). There is some evidence to show that people pay more attention to women's voice (Lord, 1991).

The script will be a logical development of ideas, with a firm construction or shape-a beginning, middle and an end. Learning is hierarchal (Schramm, 1977). One step must be taken before another can be successfully accomplished. Clear voice or sound of the presenters facilitates the utilization of programs.

At the same time sufficient pause in educational radio programs is used to give mental breath for the students and to give time for them to respond orally or perform some physical activities during radio broadcast.

Moreover when we write a radio script we have to use words which will be spoken and using short sentences is advisable (McLeish, 1996:68 & 2000: 260).

2.4.2. Technical Factors

Educational broadcasting cannot effectively be utilized if it has extremely limited access to wavebands and/or airtime. Access to waveband is technical problem (Hawkridge and Robinson: 1982). Recording programs in studio requires technical know how. The programs can be presented unambiguously and listening can be sustained when the technical quality during recording is high (Lord, 1991). The availability and maintenance of receivers and power supplies and antenna are other technical problems that impede educational broadcasting utilization.

The short supply of technical staff is everywhere (Howkridge and Robinson, 1982:42). Countries receiving foreign aid to install up-to-date educational broadcasting studios and transmitters find them selves without key technical staff to operate the new systems. Unable to maintain the transmitters when they are broken means unable to transmit or broadcast recorded radio programs to the audience.

Equally important is maintenance of radio sets. In the existing situation it is difficult for the schools to buy new sets. Unless the sets are maintained in the shortest time possible, they are compelled to stop listening, and this, in the long run, may result in complete ignorance of using radio broadcast (Hailu, 1988). Scarcity of functioning radio sets & cassette players, cost of batteries & electricity hamper the frequent utilization of radio programs (Mead,2001:6).

Terrain and sheer distances are limiting factors of quality reception of radio broadcasting (Hawakridge & Robinson, 1982:30). When the power supply and coverage capacity of the transmitters is inadequate either the attention span and level of listeners is minimized or students in those areas have to do without educational radio. For rural areas far from transmitters, antenna is suggested to be used to improve reception quality (Hailu, 1988:13). Antenna is technically easy to use it. A trained school media teacher (coordinator) or director can make it.

2.4.3. Commitment of Educational Personnel

Quality radio program is used to meet the current needs of the teachers and the learners. To broadcast quality programs and utilize them effectively the cooperation and commitment of various departments of educational personnel is needed. Personnel can be at the higher educational level or at school level. Educational department should take initiatives not only in providing and maintaining radio sets, but also in all aspects that foster effective radio programs utilization for improvement of education.

Educational department at national if broadcasting is centralized, regional and wereda (decentralized broadcasting) have to accept the purpose of educational radio. In this regard Hawkrige and Robinson (1982:32) argue that a government committed to increasing educational opportunities cannot ignore the potential of educational broadcasting. As a result most of the educational radio broadcasting projects, for instance Nicaraguan Mathematics radio project, devote a considerable proportion of their staff time and other resources to producing various supporting materials to the use of the programs, including training guides for teachers (Robinson,1982: 46).

Only supporting materials for the radio programs are not enough for the effective media utilization. Higher and lower officials at educational department and media center must be encouraged to understand that educational broadcasting must become a dialogue, between the producers and users; this is essential because it will pave the way for regular feedback. To enhance commitment of educational authorities at any level so as to play their role for the effective radio program utilization, creating awareness about the usefulness of the medium is crucial issue (Nishimoto, 1969). According to Nishimoto one strategy to call attention of Ministry of Education is to use educational broadcasting news.

Commitment of educational departments at any level and media center where radio programs are broadcasted also affects feedback system; for instance , whether the radio programs are attractive, interesting to the needs of the learner, audible, appealing, novel, interactive and the like can be answered through conducting pilot broadcasting and supervision during the actual broadcast. This then helps the producer to improve the quality of the programs. Edington (1988:196) commented that the responsibility of the broadcasting system ended with the transmission of the programs in developing countries. From this we can understand that there is a need that calls commitment of educational authorities and radio production centers to create linkage among themselves up to the classroom level to receive feedback that will help to improve the radio utilization. Unless the

broadcast service is in relationship of close partnership with the educational system, much effort and expense may be wasted.

2.4.3.1 The Role of Program Producer

Committed program producer can easily perform his roles and search solutions for the problems that can hinder effective utilization. The search for solutions of educational radio program broadcasting will be a challenge to the creativity and professional skills of radio planners and producers, their precise awareness of educational needs and aims and their deep concern for children in learning situations (Armour, 1971).

Committed program producers understand the desire among many listeners; they can enhance moods and obtain a sense of companionship. Committed program producer uses his potential and creativity in writing quality radio programs that will capture the ears of the pupils. He expands and brings novel ideas to the syllabus and curriculum. On the contrary, directly uplifting of the statements from students textbooks and broadcasting it leads the pupils to reject to listen for some unforeseen reason. Thus the program producers must be committed to know their audience, their medium and they must be close observers of the effect of their work and know their roles. The role of program producer is reviewed below.

Program producer is a key member of the production team (Kindem & Masburger, 2001:24). One of the roles of the program producers is producing quality educational radio programs and preparation of radio teacher's guide (Asresse, 1988). In the same vein Macloughlin (2001:122) argue that "script writing & casting, are two most vital parts of producer's job." Selecting presenters and actors who take part in the presentation process of educational radio program is also the role of program producer (Tenkir, 1992:37).

The other role of the radio program producer according to Bethell (1971:99) is indicated as follows:

In any clutch of days, the educational producer will, apart from producing in the studio, be involved in consultation, ... voicing, editing, fixing follow-up arrangements... addressing teachers' meetings, listening to comments on his programs, ... training teachers in radio techniques, showing groups of school children round the studios, recording samples of their work and covering an educational news story.

The program producers have to listen to any body inside or outside the department who questions what they are doing and create close contact with audience and subject specialist to improve his programs.

2.4.3.2 The Role of the Teacher

The classroom teacher serves as mediator between the radio teacher (lesson) and the students for whom the message is broadcasted. To use a broadcast a teacher has to go to a little more trouble than is involved in a routine lesson. Preparation is needed for actual broadcasts. This is additional task for the teacher. In fact, it is more proper to look at broadcast as a part of lesson. Those teachers who believed the broadcast would help them to carry out a part of the children's education are highly committed to use the radio programs even under inconvenient circumstances. Commitment of teachers in radio program utilization starts from switching-on the radio and extends to accomplish his roles before, during and after broadcasting activities at will. Committed teacher implements principles of good teaching using radio as the instructional media.

In Ethiopian case, one period for radio instruction is 40 minutes. Of these 15 minutes are for the actual radio broadcast. The time prior to radio broadcasting from a given radio period is termed as 'before broadcast', where as the time next to broadcast is termed as 'after broadcast' or 'post broadcast'. In this regard Brown, Lewis and Harclerod (1985:69) stated that in planning utilization of educational media the instructor is required to "prepare, present, and follow up." This simple formula according to the authors involves five steps - prepare yourself, the environment, & the class, use the item and follow up. Of these five sets the first three coincide with what we call 'before broadcast'. The fourth step with 'during the broadcast' and the fifth step with 'post or after 'broadcast'.

The classroom teacher is expected to perform the following activities 'before broadcast':

- Prepare himself by developing a plan to use a radio broadcast based on radio teachers' guide.

- Prepare the environment by arranging necessary materials such as radio, globe, map, diagram etc., lighting and ventilating the classroom, put on the radio broadcast sign at the door and so on.

- Prepare the class by introducing the radio lesson, arousing curiosity of learners with short verbal interaction as asking what they know about the topic, stressing on important points to be learned from broadcasting. Tell them what will be expected to do during broadcast and after broadcast. And then develop students' readiness to listen, stimulate and focus interest through preliminary comments and question

The classroom teacher 'during radio broadcast' is expected to perform the following:

- Follow the students to listen the broadcast Write or understand main points of the broadcast that will be elaborated after the broadcast.

- Assign the students to respond aurally, physically or in writing when the radio teacher asks question. Show map, glob, chart, diagram etc, when the radio teacher

asks him to show. Turn on the radio properly; be sure that sound, volume and tone are properly adjusted so that all may hear.

Turn off the radio as soon as broadcast ends.

This shows that there is a possibility to create interactive situation of radio instruction through the classroom teacher when the program is interactive nature. Thus teacher is the link or bridge between radio teacher and students during broadcast.

The teacher has to accomplish the following activities 'after broadcast'.

Invite and discuss questions about the broadcast used. Review the experience. Supervise student performance or demonstration of skills expected to be learned from the experience. Assess the value of experience. Pass long comments (via files maintained in the school media center), so as to help the producer improve the quality of the programs. Correct any misunderstandings through discussion (Brown, Lewis & Harclerod, 1985: 69-70).

2.4.3.3. The Role of the Director and Media Teacher

Utilization of educational radio programs is also affected by the commitment of the school director and school media coordinator. Committed head teachers and media coordinators are responsible to make provision for a separate period to be devoted to listening to radio programs. They also have to open a log book in order to provide brief notes on day-to-day programs and reactions of students and teachers there to (Mohanty, 1984:44).

It is the task of the school director and school media coordinator to synchronize broadcast timetable with the classroom timetable for each subject supported by radio program. But it is difficult to harmonize the broadcast time schedule and the conventional time schedule. This is because of insufficient broadcast channels, equipment and facilities particularly in developing countries (Tilson, 1994; Nishimoto, 1969). To alleviate such problems committed directors show their efforts to use recorded radio programs. In this regard Sharma (1994:372) noted that when technical maintenance is improved and expense of tape recorder is reasonable the problems of insufficient and unsuitable airtime could be side stepped by using recorded programs.

2.4.4. Radio Support Service

Points reviewed in this section includes, distribution of radios, radio teachers' guide, training, and teachers participation in media planning.

2.4.4.1. Radio Distribution

Although most developing countries have educational radio broadcasting, there are serious problems in using this medium effectively. Some of these problems according to Tilson (1994) are insufficiency & less quality of the radio receivers in the schools. For instance due to the absence of Federal funds Mexico's Radio primaria were suffered from lack of receivers & inaudibility of them (Jamison & McAnany, 1978: 47).

This indicated that utilization of radio programs can be hampered by the condition under which radios are distributed to the user schools. In this regard Chaudhary (1992) reported that the use of broadcast programs depends on the learners' access to the receiver, satisfaction to their needs, and also the quality of the programs.

The quality of reception depends on one hand on the quality of the receiver (radio). For Bates (1984), Jamison and McAnany (1978) quality of reception is one of the factors that affect radio utilization.

According to Jeffery (1971) the types of radios to be distributed to schools include:

- The radio should be provided with a sturdy carrying handle mounted securely on the cabinet.

- The loudspeaker in the radio should be of sufficient size to permit good reproduction in the generally poor acoustical conditions found in grass-or iron roofed open-sided classrooms.

- The radio should be powerful enough to receive weak signals.

- The tuning dial and other controls should be kept very simple and there should be no tone control.

- There should be a jack provided to allow the connexion of a tape recorder for the recording of school broadcasts.

- The antenna plug should be of a type that requires no soldering.

Teachers, technicians and various officers of the educational department must be consulted before purchasing the sets. In selecting quality radio Teshome (1998:156) indicated that regular radio broadcast user schools have set criterion for radio selection that emphasizes the capacity of the equipment to operate at satisfactorily low noise level. According to his finding these schools allocated enough amount of money from internal income and knowledgeable staff members bought sets.

In general, the distribution of receivers (radio) is the prior issue to utilize educational radio broadcasts at schools. In this regard Katz as cited in Asresse (1988:86) noted that without receivers to receive the signals that are broadcast, the broadcasts are wasting their time.

2.4.4.2. Distribution of Radio Teacher's Guide and Additional Materials

The aim of radio teacher's guide is to guide the teacher in the use of the broadcast. A primary school teacher may need additional subject information as well as advice on how to handle the broadcast, to enable him to do a meaningful preparation and follow-up. For instance to accompany radio programs broadcasting the BBC broadcasting departments provide range of teacher's notes, pupils pamphlets, filmstrips and other publications or supporting materials (Jamieson and Stannaard, 1977). Teacher's notes are the direct means of communication between the producer and the teacher and provide advance information for classroom preparation and organization of pre and post broadcast activities (Mohanty, 1984). To secure such an advantage endeavors should be made for preparation and distribution of support materials for the schools.

In addition to this Brumberg (in Havelock and Huberman, 1977) have pointed out, radio is not effective unless it is used in combination with other media, notably printed materials.

One of the foremost examples of integration of media exists in the Open University and its analogues in other countries. At the Open University, educational radio programs are tied to print. In addition to this the radio and Television University for teachers-Nurt's teaching system in Moscow is a multi-media system. At this university the guidebooks deserve first mention among the various printed materials (Potulicka, 1988:208). When the teachers receive radio teacher's guide and schedules and supplementary materials, they can get opportunity to prepare students to listen. At the same time student will respond actively during the broadcast and follow up the broadcast in appropriate ways.

Research finding (Teshome, 1998) on the distribution of radio teachers' guide indicated that in regular radio broadcast user schools the majority of teachers posses sufficient amount of radio teacher's guides, while in non-regular radio broadcast users insignificant amount of radio teacher's guides are available. The researcher found the reason that the regular radio users are more initiative to multiply and distribute the guides to teachers.

2.4.4.3. Training of Personnel

In order to utilize radio programs successfully Perraton (1978) argued that trained teachers must be used. Similarly, Higgs and Mbithi (1977) contend that a "good program has been backed by careful training of trainers, preparation of training materials and continuous improvements in these". Both of them indicated that teachers and others involved in program broadcast must be trained in the successful utilization of the broadcast service.

The educational departments including school directors and school media teachers, of course after they are trained can provide utilization training. Program production centers also offer trainings. Such type of training is what we call in-service training. Utilization Training is also provided in the teachers' colleges. This is pre-service training, and it is considered as cost-effective. But Welsh (1973:125) argued that primary school teachers from colleges flood out of their work every year without any idea of how to make the best use of the radio lessons that they must use. This contributes for inefficient use of radio programs. Such case leads to failure in performance. Thus failure in performance of educational technology at work is perceived as a training problem (Unwin and McAleese, 1978:395). In this regard Armsey and Dahl (1973:11) argued that teachers are hesitant to acquire new responsibility which they may not be professionally equipped to handle. Lack of training then calls teachers resistance to utilize the technology.

If radio is to play an effective part in the educational system teacher training colleges must include contents that develop broadcasting skills. In the colleges courses concerning radio broadcasting or media utilization must be offered before practice teaching (Halesworth, 1971).

2.4.4.4. Teachers Participation in Media Planning

Participation of teachers in selection of radio contents is a good indicative that answers the questions like, is it convenient to do? Or is it more trouble than it is worth to use the media? Does the content provide an element that the teacher considers indispensable, something that he cannot provide himself and that will otherwise be unavailable? What is the contribution of the effectiveness of the learning process? Supporting this idea Chapman (in Boediono, 1997:256-257) concluded in the following way:

Quality improvement in schools starts with paying serious attention to teachers. To improve quality of instruction at the classroom level, teachers need information (and teachers are themselves sources of information) about what they are expected to achieve with their students, how much instructional material is or will be available, what they are expected to....

From the above discussion we can understand that program producers must first consult teachers before writing scripts. This is because the participation of teachers in topic selection and designing the program will enhance sense of responsibility in the programs utilization and minimize resistance to use the technology.

When we see the trained of inviting teachers to participate in planning the media in Ethiopia Teshome (1998:165) pointed that an overwhelming majority of all respondent teachers in the

regular and non-regular radio user groups of schools have never participated due to financial problems and lack of initiative from educational authorities.

2.5. Educational Radio in Ethiopia

In Ethiopia, radio news broadcast in its simplest form began at the eve of the Fascist Italian invasion of the country in 1935 (Petros; 2002:8). Educational Media Agency in Ethiopia traces its Origin to the audio-visual center which was established by the Ministry of Education and Fine Arts in cooperation with USAID in 1953/54 (Tilson and Kelemu, 1998; Teshome, 1998; Center for Educational Technology, 1973). Educational broadcasting was commenced in 1965, to meet the pressing needs of the expanding educational system. This was pilot radio project for literacy and it ceased to exist in 1966, because of lack of qualified staff and proper support (Demissew, 1991; Tilson and Kelemu, 1998). Educational radio broadcasts for schools were initiated in 1969 (Abdu and Ayalew, 1973:12-13; Abdu, 1987; Petros, 2002:8). The programs were broadcasted to some 50 elementary schools in the province of Menagesha (Tsfaye, 1990).

It is in 1971 that EMA started to use its own transmitter donated by the Dutch government (Tenkir, 1992; Asresse, 1988). Before this year transmitter from Ministry of Information was shared.

Meanwhile, the Center of Educational Technology (CET) changed to Educational Mass Media Service (EMMS) in 1975/76. It again changed to department of educational Mass Media (DEMM) in 1982. Its organizational structure given a new name EMMA (Educational Mass Media Agency) and today it is EMA (Educational Media Agency) (Asresse, 1988:25-30; Teshome, 1998:82).

A nation wide radio broadcast was started from 1980-83 (Asresse, 1988). The number of programs for formal education primary schools broadcasted during the imperial regime per year and grade was 26. During the Military regime Amharic for grade 1-6; English for grade 3-6; science from grade 1-6; and social studies from grade 4-6 were prepared at the center (EMMA) and broadcasted at each radio stations (Tenkir, 1992). The duration of each program was 15 minutes.

Thus the total number of programs per year was 532 and program series reached 19. Formal educational radio programs for primary schools and teacher's guides are produced and broadcasted in each regional Media center at the present situation (Teshome, 1998; Tilson and Kelemu, 1998; MOE, 2000:32).

Currently the scope of production and transmission of educational radio programs has widened immensely. Besides the national language (Amharic) and an international language (English), radio programs for elementary schools are broadcast to rural and urban area schools all over the country in about 20 local languages. Environmental science and social studies are the major subjects reached by radio in addition to the languages cited above (Petros, 2002:9). At the secondary level educational radio programs for fifteen minutes in six-subject areas-Amharic, English, Geography, History, Chemistry and Biology for grade 9 and 10 are being disseminated through radio broadcasting and audio cassettes to various secondary schools in the country as of 1997 (Ibid: 9-10).

During the durg regime ministry of Education had 11 one Kilowatt medium- wave regional transmitters (Asresse, 1988; Tsfaye, 1990). Of these three were located in Amhara region (Dessie, BahirDar and Debre Markos). Each regional radio station was built to accommodate three transmitters with three transmission radio frequencies which enable to transmit three different educational radio programs simultaneously when the need arises (Tenkir, 1992:28).

Today, there are 12 educational radio programs broadcasting stations (Petros, 2000:8). The broadcasting stations have been recently equipped with 10 Kilowatt power transmitters. Of these 4 are in Amhara Region. The following table will give details.

Table 2.1. Educational radio production studios and transmission stations in Ethiopia

Sr No.	Location of stations	Region	Year of 1 Kw Transmitter installation	Year of 10 kw transmitter installation	Year of Radio studio installation
1	Bahir Dar	ANRS	1980	1998	2000
2	Dessie	“	1981	1995	1996
3	DebreMarkos	“	1980	1994	1992
4	Gondar	“	1996	1995	1996
5	Gimbi	Oromia	1981	1994	1198
6	Gore	“	1981	-	-
7	Robe	“	1980	1988	1986
8	Alemaya	“	1980	-	-
9	Legedade	“	1981	-	-
10	Mekele	Tigray	1981	1993	1986
11	Welayta Sodo	SNNP	1970	1992	1988
12	Yirgalem	SNNP		1999	1999

Source: Adopted from Petros, 2002:9 and interview from BDEMDECC head, 2004

The goal of formal education radio in different regimes in Ethiopia has some common ideas to be addressed. This according to Teshome (1998:73) includes:

(1) Providing formal primary education for all; (2) improving student learning; (3) improving school facilities/resources; (4) improving teacher competence; (5) improving educational relevance; and (6) minimizing educational costs (Teshome:73-78).

The present situation emphasizes the provision of subjects for primary schools in local languages (TGE, 1994). As a result developing radio programs for primary schools turned over to the regions and EMA has responded by assuming major responsibilities for training regional radio producers (Tilson and Kelemu, 1998; MOE, 1999:10).

As stated earlier, since decentralization regions are responsible to produce and broadcast elementary schools radio programs by them selves. Based on this autonomy Amhara Region has produced and has broadcasted different subjects since 1989. These include environmental

science from grade 1-4, social studies and Amharic from grade 5-8, Science from grade 5-6, biology from grade 7-8, and English grade 8 (DEMC, 1992 E.C.).English from grade 1 to 7, though it is not produced at regional level is broadcasted in four of the educational radio stations in the region. Particular emphasis has given for IRI English grade one that was produced in EMA by financial aid of USAID/BESO. The following table will give details on the subjects produced and broadcast in the region.

Table 2. 2. Educational Radio Programs Produced and broadcasted in Amhara region

Sr.N	Subject	Grade	Year of production (in E.C.)	Remark
1	English	1-7	_____	Produced by EMA
		8	1994	Produced in the region
2	Environmental science	1-4	1990 &1993	Produced in the region
3	Social Studies	5-6	1989	Produced in the region
		7-8	1990	Produced in the region
4	Science	5-6	1990	Produced in the region
5	Biology	7-8	1990	Produced in the region
6	Amharic	5&7	1989	Produced in the region
		6&8	1990	Produced in the region

Source: DEMC (1992E.C), GEMC (1994 E.C), and interview with program production team, 2004

CHAPTER THREE

Methodology

The purpose of this section is to describe the methods designed, tools and techniques developed, and the procedures adopted for collecting data.

3.1. Design of the Study

The major concern of the study is to examine and describe the extent of utilization of SSRP in SCPS in Amhara Region, and to identify the factors that influence the practical use of these programs in classrooms. A multi-approach (both quantitative and qualitative research design) forms the basic approach of the present investigation.

The first procedure adopted in the present investigation was reviewing an extensive literature that could serve as a conceptual framework, to identify the points to be included in the study and to develop instruments and strategies of data collection. Secondly, the instruments were developed and discussed with Amhara Region radio program experts for further improvements. Then, Pilot test was conducted before the main study to check the effectiveness of the students' questionnaire. Based on the feedbacks obtained, the necessary amendments were made on the instruments.

The last procedures adopted in the collection of data were selection of respondents, administering of the instruments and analyzing the information collected.

3.2 Sampling

The sample study included SCPS students, social studies teachers, school directors, school media teachers. It also included Regional Education Bureau Head, Education Media Coordinating Center heads, radio program production team leaders, technical team leaders, and educational radio program producers of social studies, primary education desks at wereda level and wereda education office heads. Classes during reception of the programs were also sources of data in which observations were conducted.

In this research sample zones, weredas and schools were selected by the help of purposeful sampling technique.

There are 11 zones in Amhara Region; out of which three were selected by the help of purposive sampling. According to Patton, (1987:52) in purposive sampling the units of samples are selected by the researchers, who attempt to obtain a sample that appears to him or her to provide rich information. There are different strategies for selecting information-rich cases purposefully; the criterion sampling is the one that is used in the present study. The logic of criterion sampling is to review and study all cases that meet some pre-determined criterion of importance (Patton, 1987:56). According to Patton (1987:56) criterion sampling also can be applied to identify cases from quantitative questionnaires for in depth follow up. Thus, the researcher set three criteria to select information-rich sample areas:(1) the availability of radio stations- Out of four educational radio stations and recording studios in the region two are located in these areas; (2) accessibility to collect the necessary data , and (3) familiarity of the researcher with the areas. Based on these Bahir Dar special zones, West Gojjam and North Gondar zones were selected. From these zones three weredas, from West Gojjam and North Gondar each, and Bahir Dar special zone which is not sub divided into weredas were selected.

Sample weredas from West Gojjam zone were Mecha, Bahir Dar Zuria and Yilmana Densa. That of from North Gondar zone were Gondar town, Gondar Zuria and Dembia. Moreover, 4 schools were selected from each wereda. The schools considered in Bahir Dar special zone were 9 (total population). In general, total sample schools drawn for the investigation were 33 (12 from each two zones and 9 from Bahir Dar Special Zone). Out of these 17 & 16 were chosen from urban & rural areas respectively. According to statistical evidence, numbers of students in urban schools are larger than the rural ones (ANRS EB, 2004). In such a case, considering the proportion (quota), during selection of sample students, may lead the finding to reflect more of urban situation. To alleviate such problem, equal numbers of students (40) for each school in both settings were considered purposefully. Besides, an equal portion of students were drawn from each grade level (i.e. 10 students from grade 5, 6, 7 and 8). Both sexes were also given equal quota for the investigation since numbers of male and female students at SCPS are proportional (ANRS EB, 2004). Therefore, 20 females and 20 males were chosen from each school. To keep the gender balance 5 females and 5 males were chosen from each preferred grades (5, 6, 7 and 8). Then, sample respondents were chosen from each grade by the help of simple random sampling technique (lottery). In this regard, Aronson and et.al. (1990) pointed that simple random sampling is one of the most important tools for ruling out the danger of systematic error in

sample selection. The total population of students in 33 sample schools is 61,614 (ANRS EB, 2004:67). Out of these 1,320 students were brought under the preview of the study. Large sample increases the representativeness. Representative samples are required when the results are to be generalized from a sample to a large population (Patton, 1987). That is why the present investigation considered large samples to generalize about the radio utilization in Amhara Region. The names of sample zones, weredas and schools are listed below under table 3.1.

Table 3.1. List of Sample Schools

Sr No.	Zone	Wereda	Name of the School	Sample Students	Remark
1	West Gojjam	Mecha**	• Meray Kebele Primary School*	40	Urban
			• Wetet Abay " "*	40	Rural
			• Reim " "	40	Rural
			• Brakat " "	40	Rural
		Yilmana Densa **	• Adet Primary School*	40	Urban
			• Kelemo " "	40	Urban
			• Debremewi " "**	40	Rural
			• Geregera " "	40	Rural
		Bahir Dar Zuria	• Tis Abay Primary School*	40	Rural
			• Sebatamit " "*	40	Rural
			• Zenzilema " "	40	Rural
			• Fereswega " "	40	Rural
2	North Gondar	Gondar town**	• Debreselam Primary School	40	Urban&NGo
			• Tsadiku Yohannis* " "	40	Urban
			• Hebret* " "	40	"
			• Key Amba " "	40	"
		Gondar Zuria**	• Maksegnit Primary School*	40	Urban
			• Lemba " "	40	Rural
			• Chinchaye* " "	40	Rural
			• Manterno " "	40	Rural
		Dembia	• Koladiba " "	40	Urban
			• Salege* " "	40	Urban
			• Chwahit " "	40	Rural
			• Arbaba* " "	40	Rural
3	Bahir Dar special zone	Bahir Dar**	• Ewkit Fana " "	40	Urban
			• Dilchibo " "	40	"
			• Tsehay Gibat " "	40	"
			• Sirts Dengil " "	40	"
			• Kulkual Meda* " "	40	"
			• Yekatit 23 " "	40	"
			• Shimbet " "	40	"
			• Katolik " "	40	Urban&NGo
			• Nigat* " "	40	"

Key

* The schools from which interview respondents of school personnel were selected .

**Weredas from which interview respondents of woreda education office personnel were selected.

Besides, data were collected from second cycle primary school directors, social studies teachers and media teachers through interview. Collection and organization of data through interview from large size sample is difficult to manage. As a result, two schools from each weredas (including Bahir Dar) were purposively selected for interview.

Therefore, interview was conducted in 14 sample schools. Educational personnel at five weredas were also interviewed (See Table 3.1). In general, the total population of school personnel in sample schools responded for the interview, that is 23 social studies teachers, school directors (14) and 6 media teachers. Moreover, total population was also considered as a source of data for the following: AREB Head, 5 wereda education office heads and formal education desk coordinators each, Bahir Dar educational media and distance education coordinating center head, and Gondar educational media center head, program producer at Gondar, social studies radio program producer at Bahir Dar and four technical and radio program production team leaders in both media centers. In addition to this, data were collected from forty-eight observations of two purposively selected schools at Bahir Dar.

3.3. Instruments of Data Collection

Multiple instruments of data collection were used in the current study. Using more than one data collection techniques has an advantage to combine the strengths and minimize the weaknesses of any one source of data (Patton, 1987). In the same vein, Husen (in Teshome, 1998:47) stated that single study can use both quantitative and qualitative data. Bearing in mind these ideas, the present investigation was conducted by using three types of instruments: observations, interviews and questionnaires.

3.3.1 Students' Questionnaire

Questionnaire was used to secure data from students. It had two sections. The first section was prepared to acquire information on five main issues that include the quality of the radio programs, interest of the students' on radio programs, the conditions of technical and radio support services and Commitment of teachers and school directors (see Appendix III for details).

The second section of students' questionnaire was an open ended type. This section was aimed to acquire necessary information on the number of SSRP they listened to in first semester. Students' questionnaire was tried-out before the actual data collection.

3.3.1.1 Pilot Study

The objective of the pilot study was to identify the reliability and validity of the questionnaire. For the purpose of pilot study, two schools were selected. These were Teyema Primary School at Bahir Dar and Merawi Primary School at Merawi. The study was carried out from January 12, 2004 to January 16, 2004. From each school, an equal proportion of students were taken (i.e. 32 students each). From each grade level 4 females and 4 males were chosen using simple random sampling (lottery) technique. Thus, the total number of respondents participated in the pilot study were 64. Out of these 32 were female respondents.

The student's questionnaire were adopted from Teshome (1998) and also collected from different literatures in the field under consideration so as to fit the objective of the present investigation. Students were asked to rate statements that are intended to measure the extent of opinion towards the utilization of social studies educational radio programs.

The items were translated into Amharic in order to help respondents fill in them with ease. The Amharic version was given to three postgraduate Amharic students to receive comment. It was also given to educational radio program experts in Amhara Region for the same purpose. Finally these comments were used to increase the validity of the questionnaire.

Based on expertise comments two items were discarded and minor modifications were made for few items. The rest were found to be adequate for the purpose intended.

The questionnaire was distributed and collected by the researcher himself. The investigator oriented the respondents about the objective of the study and how to respond for the questionnaire. The researcher also gave chance for respondents to ask questions whenever they feel the item is ambiguous and to write additional points that need emphasis at the back side of the questionnaire.

After collecting the questionnaire, the coefficient of reliability was calculated using split half reliability method for 63 respondents. One of the respondents has given two answers for each item out of the instruction of the questionnaire. The researcher discarded these responses.

The result of reliability coefficient showed internal consistency of 0.82 (see Appendix IV). This result indicated that the reliability of the questionnaire is high. Moreover, to secure more reliable questionnaire the investigator used the suggestions of students at the field trip. As a result the items in the first section of students questionnaire were lengthened from 22 to 29 (see Appendix III), and clarifications were added to some 7 questions.

Finally, the improved items of the questionnaire were discussed with the educational radio program experts before the actual study was conducted. The comments were used to improve the validity of the questionnaire. After such activity the final questionnaires were distributed for the actual study.

3.3.2 Interviews

Interview is a good tool to secure an in-depth data. To obtain such an advantage the present research employed interview guides. The respondents were AREB, BDEMDECC, GEMC heads, Technical and Program Team leaders, and SSRP Producers in Gondar and Bahir Dar Media Centers, Wereda Education Office Head and Formal Education Desk Head, school directors, selected media teachers and social studies teachers at SCPS.

Interview guides were first prepared in English and then translated into Amharic. The Amharic version was evaluated by senior colleagues and expertise in Bahir Dar education media and distance education coordinating center before applying to the main study. In accordance with the suggestions given, certain modifications were made on few questions. Taking notes alone were not sufficient in such cases, responses were tape-recorded. Prior to data collection, the researcher established rapport and informal relation with the respondents. Then, the purpose of the study was made brief. These steps helped the interviewees to be relaxed. Therefore, the researcher did not face a refusal to use recorder. Items which were used for guided interviews are given in appendices from V to VIII.

3.3.3 Observations

In order to assess the actual utilization of social studies radio broadcasts at the classroom level observation checklist was prepared (see Appendix IX). The items of the checklist were developed from Teshome (1989) with little modification, from related literature to the issue and from researcher's personal experience in the field. Classroom observation checklist was intended to measure the commitment of the teacher in utilizing the programs at classroom. In other words, the way the teacher performs, preparation to the programs to accomplish pre-broadcast, during-broadcast and post broadcast activities were included to be checked during classroom observation. Out of 28 SSRP aired for each grade in second-cycle primary schools in the first and second semester, 6 were purposively selected (3 in the 1st semester and 3 in the second semester) at each grade, i.e. grades 5, 6, 7 and 8 and observed. The programs were observed in 2 purposively selected sample schools in Bahir Dar town. Thus out of the total SSRP ($28 \times 4 = 112$) for second-cycle primary schools 24 (21.4%) were considered at each sample school

selected for observation. Since sample schools were two in number each program was observed twice. Total number of observations was then 48.

The items of the checklist were shown to educational radio program experts in Amhara Region. On the basis of comments forwarded from experts certain amendment was then made.

The researcher also observed the synchronization of the school time-table with the broadcast schedule. The classroom observation was made by the researcher himself to have a better understanding on the information to be obtained.

3.4 Method of Data Analysis

The study explores the extent of SSRP through multiple method of data collection. Thus, the procedures followed for analyzing the data depend on the instruments employed. Data from students' Questionnaire and observation were first collected, tallied and fed to an SPSS for windows program. Next the descriptive analysis was conducted for each cases and reported frequency counts, percentages and chi-square tests. Percentages were used mainly to make the figure easily understandable.

The qualitative data drawn from interviews and tape recorded notes were first transcribed into a separate file. These were carefully studied, presented both as expressed by the respondents and as understood by the researcher under each variable and used to substantiate with the students responses.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Number of SSRP Used In SCPS.

Students were asked to indicate the number of SSRP they used in first semester in the 2003/2004 academic year. The summary result is illustrated in Table 4.1.

Table 4.1 Frequency & percentage distribution of students' responses on the number of radio programs used in first semester.

Statement	Respondents N=1320			Chi-square
	0 [no use]	1-13 [partial use]	14 [full use]	
Number of radio programs used in first semester	384(29%)	936(71%)	_____	231

$p > 0.05$

As it is indicated in table 4.1, most of the respondents (71 percent) reported that number of SSRP used from surveyed SCPS in the first semester ranges from one to thirteen (which is partial use). Whereas nearly one third (29 percent) of the respondents indicated that they were not using SSRP at all. Besides, the table portrays absence of full use of SSRP in the surveyed schools. This indicates that radio programs are not uniformly utilized in surveyed schools. The computed chi-square value in table 4.1 shows that there is significant difference between the observed frequencies and the expected ones.

The study also sums up the interview results of social studies teachers, selected media teachers, school directors, Wereda education office heads & formal education desk heads, Media Centers & Regional Education Bureau heads on whether the school teachers make regular use of social studies radio broadcasts or not. In the first instance, all of them indicated that the programs had been utilized regularly and the learners benefited from the programs. However, later on during discussions through probing questions with teachers and directors out of 4 sample schools 2 (50%) in Gondar town, 4 (nearly 50%) in Bahir Dar town agreed that because of a number of constraints, they didn't even use a single social studies radio program in this semester.

In the rest of the schools, respondent teachers and directors indicated that except electric failure at radio station or school, teachers' meetings, absence of teachers due to personal problems, & holidays the radio programs are regularly used though the degree of utilization varies and is less effective. However, since constraints listed above by respondents are many it is possible to say that SSRP are not fully utilized. Besides, the AREB, BDEMDECC and GEMC Heads asserted that there are few schools in the region which are found at depression (e.g in North Shewa, Wello & North Gondar) that could not receive broadcasts. But for such schools which are disadvantaged due to their relief feature alternative conditions to use educational radio programs are not adjusted by educational bureau. Based on the students' questionnaire and the interview with educational personnel there are schools that completely ignored to use radio programs. And there were no schools that utilize the programs fully. Thus, these results seem, to show the absence of full use of programs when it is examined against the standard set by the EMA. According Petros (2002) each class (teacher of primary school) has to use one of the repeats per week from each subject prepared. Besides, still there were fundamental questions which should be answered in relation to the proper utilization of radio programs. These were examined at both ends (production and broadcasting end and user end). In examining, even very negligible elements of utilization problems were not overlooked. This is because minor weakness in utilization can break down the communication and results in losing the pupils and teachers and failing to meet the objectives.

4.2 Impediments of Proper Utilization

4.2.1 Quality Of SSRP

It was of interest to know the opinion of the respondents: students, school personnel & educational sector personnel at different levels about the quality of SSRP broadcasted for the SCPS.

To secure opinion of students, statements representing different aspects of the quality of educational radio programs were presented. Each statement was written in a three point rating scale (agree, undecided & disagree). The respondents were asked to put a check mark (✓) wherever they thought it described their opinion. The result obtained from students' response in this respect is presented in table 4.2.1 to 4.2.4. Accordingly, interview results are also indicated.

Table 4.2.1 Opinion of the students on the mode of presentation (quality aspect) of SSRP

Sr. N	statements	Frequency & percentage of respondents. (N= 1320)			
		Agree	Undecided	Disagree	chi-square
1	SSRP designed to encourage students' participation.	143(10%)	60(05%)	1117(85%)	1570
2	SSRP provide enough pause to respond for radio questions, to show maps or diagrams etc.	253(19%)	156(12%)	911(69%)	767
3	SSRP are presented in different formats/teaching methods e.g. drama, dialog and single voice talk.	295(23%)	109(08%)	916(69%)	812
4	SSRP proceed from simple to complex	832(63%)	198(15%)	290(22%)	534
5	Social studies radio lessons are presented in an interesting manner	964(73%)	132(10%)	224(17%)	946

$P > 0.05$

As it is evident from table 4.2.1, from the surveyed schools only 10 percent of students were of the opinion that SSRP are designed to encourage students to participate. On the contrary, 5 percent were unable to decide & most (85 percent) consider that programs are not designed to encourage students to participate during broadcast. In line with this, three fourth of the interviewed teachers (16 in number) stated that the formats of SSRP are teacher-centered type. The communication is one way. Of course there are very few questions at the end of the broadcast that allow students to participate aurally. Moreover, the learners are passive during broadcast. Informants at the end of the programs production also believed that SSRP are not interactive. It could have been improved if pilot broadcasts were made in few schools (Interview with Gondar educational media center program producer). What is not denied by teachers & school directors in most of the sample schools is that dialogue among radio students & their teacher is a good model that can indicate the classroom teacher how to create interactions, friendliness sympathy & the like among his students in non – radio periods. It shows for the teacher democratic relation ships between him & his pupils. It also arouses interest of the students to ask freely their teachers, parents, friends & experts.

In the table above 19 percent of respondent students agreed that duration of pause in SSRP is enough. Where as most (69 percent) of the respondents depicted that the duration of pause was not enough to respond for aural questions & to involve physically in showing maps. From this it

is understandable that short span of pause limited the engagement of students in learning during broadcast. The present research also identified through observation that during aural question the duration was not sufficient to give chance for more than one pupil to respond.

Students also responded whether combined radio teaching formats were used or not. As it is indicated on the same table, 23 percent of the students portrayed that SSRP are presented in varieties of radio instruction formats. Whereas 8 percent were unable to decide & most of them (69 percent) reported that variety of radio formats are not employed. With regard to formats, the finding of interview also confirmed that in majority of the programs single voice talk is the dominant format used to present SSRP (Interview with teachers). Personnel at the production end added that in some cases the form of team teaching by inviting experts is employed in combination to single voice talk. But it was done in a wrong manner. That is, instead of presenting the lesson by the actual voice of the experts the program producers themselves act as an expert. Through time the user teachers & students have understood that program production ends failed to invite actual experts in the field. Thus, the situation may lead the user ends (schools) not to believe the radio programs. Whenever the value set by the user students, teachers & directors about radio education is eroded it is inevitable that its utilization became less effective.

In the above table majority of the respondent students (63 percent) agreed that SSRP proceed from simple to complex, whereas 15 percent were failed to decide & nearly one fourth (22 percent) disagreed on the procedure of the programs from simple to complex.

Moreover, majority of the students (73 percent) responded that SSRP are presented in an interesting manner. Whereas 10 percent didn't decide on the attractiveness of the presentation, & 17 percent said that the programs presented are not interesting. The computed chi-square value in table 4.2.1 shows that there is significant difference between the observed frequencies and the expected ones.

Moreover, other aspects of the quality of the program assessed in this study are the language and sound used in the programs. The results in these regard found to be positively rated by majority of respondents as it can be grasped from the data in table 4.2.2

Table 4.2.2 Opinion of students' about the language & sound effects (quality aspect) of the SSRP.

Sr. N	statements	Frequency & percentage of respondents (N=1320)			
		Agree	Un-decided	Disagree	Chi-square
1	The language used in SSRP is easy.	911(69%)	119(09%)	290(22%)	790
2	Sound of social studies radio program presenters is clear.	990(75%)	92(07%)	238(18%)	1055
3	SSRP use sound effects relevant to the lesson, e.g., animals & cars sound	720(55%)	188(14%)	412(31%)	324

($P > 0.05$)

As it has been depicted in Table 4.2.2, majority of the students (69 percent) agreed that the language used in SSRP in second cycle primary education is easy, whereas 09 percent & 22 percent of students expressed their views that they are not able to decide & disagree respectively in the ease of the language used.

At the same time most of respondent students (75 percent) agreed that sound of social studies radio program presenters is clear, where as 7 percent didn't decide on the issue, and less than one fourth (18 percent) disagree on the clarity of the presenters sound.

Majority of the respondent students (55 percent) agreed that sound effects used in SSRP are relevant to the lesson, whereas 14 percent & 31 percent of them are unable to decide & disagree respectively on the relevancy of sound effects to the lesson. The computed chi-square value in table 4.2.2 shows that there is significant difference between the observed frequencies and the expected ones.

With regard to the ease of the language, clarity of sound & appropriateness of the sound effect the data obtained through interview is reported here. To begin with, language difficulty can hinder the radio programs utilization. The radio programs in Amhara region were produced at different media centers (Bahir Dar, Debremarkos, Dessie & Gondar). Due to this reason informants in Gondar educational media center assured that the influence of dialect is observed in some of the SSRP. One of the advantages of using a powerful mass medium like radio is to bring about language development among the children by exposing them to the standard language. Of course,

the region has an attempt by now to produce radio programs at central studio, i.e. Bahir Dar Educational Media & Distance Education Coordinating Center, and this can alleviate the dialect problem.

Sounds of the script readers could be clear, attractive & appealing to the listener students; unless the user students will switch off the radio mentally & physically. In this regard majority of the informant teachers reflected that most of SSRP are presented by attractive & appealing voice and/or sound. However, the informants in media center & schools indicated that SSRP failed to be voiced by actual cast or the character. For a boy or a girl character a man or a woman are assigned to read it. This distorts the reality to which user teachers & students may be dissatisfied to use the programs

Concerning the appropriateness of sound effects, all of the informant teachers declared that sound effects are good to motivate students to listen attentively. But in SSRP, some of the sound effects are confusing the students & the teachers themselves. This is because of the fact that sounds used were not familiar to both the teachers & the students. In this regards, GEMC head also assured that since sound effects were not synchronized with the picture and/or the photographs it is inevitable that teachers & students would be confused on the sound effects. The resource person added that to minimize confusion, it is recommended to show pictures first & then present sound effects. This can create audio & vision on the students mind. As a result varieties of sense organs can be involved in which contents can't be easily forgotten (Interview with GEMC head).

Besides, some of the informant teachers indicated that classical music used as a mental rest & pause to respond for oral questions are initiating the students to dance in the classroom. It creates disciplinary problems that hinder attentive listening. GEMC head agreed upon this argument. He stated that:

I feel it is one of the short comings in our educational radio programs. Bridge music could not be selected haphazardly. We should take time to think about....I suggest using bridge music that could support the radio lesson (3/2/04).

Besides, the quality of radio programs is assessed from their significance for personal enhancement as improvement of critical thinking, support retention, teaches and informs better than the face-to-face one. Majority of the respondent students positively rated on these quality aspects. The results are clearly indicated in table 4.2.3.

Table 4.2.3 Opinion of the students on the personal enhancement (as quality aspect) of SSRP

Sr. N	statements	Frequency & percentage of respondents (N=1320)			
		Agree	Un-decided	Disagree	Chi-square
1	Social studies radio improves critical thinking	914(69%)	119(09%)	287(22%)	798
2	SSRP support retention, because they easily clarify doubts in regular classes	990(75%)	92(07%)	238(18%)	1055
3	Social studies radio teaches better than classroom teacher	726(55%)	185(14%)	409(31%)	336
4	I am better informed through radio than without radio	885(67%)	145(11%)	290(22%)	699

$P > 0.05$

Table 4.2.3 shows that, most of the respondent students (69 & 75 percent) have shown the opinion that SSRP improve critical thinking & support retention respectively. On the contrary 22 percent & 18 percent insists on the opinion that the programs didn't improve critical thinking & support retention respectively. The rest 9 percent & 7 percent were unable to decide on the issue under discussion.

Besides, (67 percent) of the respondent students have given the opinion that they were better informed through radio than with out radio. The computed chi-square value in table 4.2.3 shows that there is significant difference between the observed frequencies and the expected ones.

In the same vein, most of the interviewed teachers reflected that social studies radio can teach & inform better than the classroom teachers. But one of the respondent teachers in Gondar town argued that "SSRP are repetitions". According to this teacher, a teacher can do better than the radio. Those who favor radio teaches & informs better than the classroom teacher added that radio forces careless teachers to be ready to prepare teaching materials. Whereas those who didn't favor that radio teaches & informs better than teachers blamed that radio orders the teacher to bring teaching materials that are not available at schools, such as pantograph for grade 8 geography. However, it is identified that pantograph is a simple & easily made teaching material used to enlarge & reduce maps.

The last but not the least point, used to assess the quality of SSRP is its novelty. The question states that SSRP provide new ideas in addition to the points found in the students' textbook. The response of students is summarized bellow.

Table 4.2.4. Opinion of students on novelty, as quality aspect, of the SSRP.

statements	Frequency & percentage of respondents (N=1320)			
	Agree	Un-decided	Disagree	Chi-square
SSRP provide new ideas in addition to the points found in the students' textbook	179(14%)	79(06%)	1062(80%)	1330

$P > 0.05$

Table 4.2.4. shows that few (16 percent) of students in surveyed schools responded positively on the inclusion of new ideas in SSRP. On the contrary, most of the respondent students (80 percent) confirmed that the programs are the direct copies of the student's textbooks. The computed chi-square value in table 4.2.4 shows that there is significant difference between the observed frequencies and the expected ones.

Besides, the results obtained from the interview on the novelty (quality issue) are congruent with the students' responses. Concerning the inclusion of novel ideas in the contents of SSRP in second cycle primary education most of the informants in the schools (subject teachers, media teachers & directors) reflected that ideas are directly uplifted from the students' text. This according to the respondents is repetition & time killing. Gondar educational media center head, program producer & team leader also agreed that novel ideas or examples that support the curriculum are not included in most of SSRP. According to BDEMDECC Head, radio contents are selected from the syllabus based on the following criteria (1) Contents that are taught in the same week with the classroom teachers, (2) Suitability of contents to be presented by radio, (3) Contents that need more expertise ideas & need to be supplemented by radio, and (4) Contents that can be used for causal or non – targeted listeners.

But due to the fact that scripts were written in a short period of time, pilot- broadcasts were not conducted. As a result, the new ideas that support the syllabus are minimal (interview with program production team). This can then hinder effective radio utilization. Subject teachers also indicated that radio & classroom teachers didn't teach the same content at the same week. Radio is three weeks ahead. As a result contents taught by radio in this week are repeated by classroom teachers after three weeks. Based on this argument some of the informant teachers & directors considered radio as wastage of time.

In all the above and in the rest of tables the percentage of respondents under the ‘undecided’ category seems to be big. This is because of the presence of non-radio using schools, which hinders them to decide on the items.

In general there is a gap that the quality of the programs in many aspects seems to minimize the effective utilization of social studies.

4.2.2 Students Interest

Table 4.3. Opinion of the Students about their interests towards SSRP

Statement	Frequency & percentage of respondents N=1320			
	agree	undecided	disagree	Chi-square
I would prefer to continue my social studies lessons with radio support even if I had the choice not to participate in them	1110(84%)	62(05%)	148(11%)	1539

$P > 0.05$

Most of the respondent students (84 percent) positively rated to show their preference to learn with radio than without it (see table 4.3.)

As far as the interest of the learners towards SSRP is concerned, all of the informant teachers, media teachers & directors asserted that the interest of students towards SSRP is very high. In line with this most of the directors confirmed that, the students remind the radio period for the teacher & when the teacher is absent they took radio from the directors’ office in order to attend the programs by themselves.

The computed chi-square value in table 4.3 shows that there is significant difference between the observed frequencies and the expected ones.

4.2.3 Technical Factors

4.2.3.1 Audibility of Radio Broadcasts

As far as the impediment of technical factors on the radio utilization is concerned the audibility of the broadcast is checked by students’ questionnaire. Besides, conditions of maintenance service, installation of antenna in schools & broadcast quality of educational radio stations is discussed with directors, , teachers, school media teachers, media centers & education bureau & wereda education office personnel. The students’ response is as follows.

Table 4.4 Opinion of Students about Technical Factor on the Utilization of SSRP

Statement	Frequency & percentage of respondents N=1320			
	agree	undecided	disagree	Chi-square
Social studies radio broadcast is clear to hear the message	554(42%)	119(09%)	647(49%)	361

$p > 0.05$

The frequency distribution from table 4.4 shows that the combined total proportion of students who responded positively as to the audibility of radio broadcast are 42 percent. On the contrary majority (49 percent) of students indicated that the radio broadcasts are not clear to listen to SSRP.

The computed chi-square value in table 4.4 shows that there are significant differences among the observed frequencies and the expected ones.

Concerning audibility of broadcasts, out of the interviewed school personnel only a single person was able to tell the wave line of the educational radio station from which the received radio signal. While the rest found the signal by trial & error. Due to this the audibility diminishes. Majority of the schools in west Gojjam & Bahir Dar Special Zone use Bahir Dar & Gondar radio stations. But it is argued that Gondar radio station is less audible in these zones.

At the same time audibility of Bahir Dar radio station is highly affected by overlapping signal from the voice of Amhara radio station. This is critical, particularly from 8:00 am to 9:00 am in the morning & from 11:30 am to 1:30 pm in the day time for Bahir Dar town. Due to this 10 educational radio programs per day are found to be not audible in most of the schools. This and other factors lead the schools in Bahir Dar not to use the radio programs.

The schools in North Gondar receive signal from Gondar & Bahir Dar radio stations. However, due to distance, physical features & the long service of the transmitter Bahir Dar radio station is less audible for North Gondar Zone schools.

Regional education bureau head also asserted the less audibility of educational radio stations.

A leading response from him explains:

Transmitters & studio equipments are old, outdated. Technology that is used for educational media centers in our region is analogue. Quality broadcast would be received from digital technology. As a result educational radio broadcasts are less audible (2/2/04).

In the same vein, technical team leader at Gondar realizes the presence of broadcast quality problem. The reasons he explained for unclear sound broadcasted from stations include: student revox professional tapes are old, no shelf that protects reels from dust particles, & exposure of the transmitter for dust due to the location of the radio station at the main road from Gondar to northern part of Ethiopia.

The media center head at Gondar also asserted that “though the transmitter in Gondar educational radio station is better than other transmitters in the region it was damaged in different times, & the machines in Gondar recording studios are outdated”.

One of the school directors at Gondar also indicated that the last 3 minutes of a given programs broadcasted from Gondar radio station is not audible.

The audibility problem according to one of the respondent teachers in west Gojjam makes students restless & nervous. And he added that “Radio broadcast from Gondar is full of harsh sounds. When I used broadcast from this station I observed my students turning their face to the left or right side to talk with their colleagues”. This is an indication of attention deficit towards the broadcast.

In both of the data source areas (Gondar & Bahir Dar) 1kw transmitter is used for formal educational radio broadcast. 10kw is used for adult education, diploma distance education for primary school teachers & entertainment programs (interview with BDEMDECC Head). The reason that they didn't use 10 kw transmitter for formal education is that its electric consumption is high. Thus broadcast repeats from each station for a single subject are only two per week in one shift.

4.2.3.2. Antenna Installation

Antenna is used to improve the audibility of radio broadcast. However, it is not installed in all the surveyed schools. The reason for this, according to Gondar town education office formal education desk is that teachers were not cooperative to use antenna. Whereas most of the teachers argued that it is not their duty to install antenna in the schools.

4.2.3.3 Maintenance Service

Most of the surveyed school directors & teachers reported that media centers are responsible for radio maintenance. Wereda education office heads & formal education desk heads argued that weredas collected radios from schools & call technical experts from media centers.

However, due to the lack of spare parts many radios including solar radio are not maintained. Since the maintenance service from media centers is not satisfactory some schools tried to get maintenance from private shops & pay for the service. Few schools also asserted that they rely on the teachers that do have some technical know how.

Technique team leaders at Bahir Dar & Gondar were asked to comment on the provision of technical services. Both of them asserted that, due to lack of spare parts, mobile shop, budget and technical experts has become difficult to provide satisfactory maintenance service for schools.

In sum, it is easy to understand that technical support in surveyed areas is not satisfactory. It may then impede effective radio utilization.

4.2.4 Commitment of Educational Personnel

On the questionnaire, students were asked to reflect their opinion on the commitment of social studies teachers & school directors in accomplishing & facilitating radio utilization. Nine items were included in the students' questionnaire in order to understand the commitment of teachers & directors to radio use. Each of these items asked the students to check one of the three alternatives, indicating the degree to which each of them agrees with the statements of commitment. The alternatives include agree, undecided & disagree. Commitment of educational personnel in the present study is seen from readiness, cooperation and attention paid to perform the roles assigned to each of them so as to facilitate proper radio utilization. Based on this students were asked to rate whether teachers and directors are committed to perform their roles properly. Table 4.5.1 and 4.5.3 show detail descriptions.

4.2.4.1 Commitment of Teachers in Performing Radio Activities

Table 4.5.1 Opinion of students on commitment of teachers in performing radio activities

Sr. No	Statements	Responses (N=1320)			
		Agree	Un-decided	Disagree	Chi-square
1	Social studies teachers are ready to provide an opportunity to discuss about the radio lesson before and after the broadcast	290(22%)	119(09%)	911(69%)	790
2	Social studies teacher didn't waste time in searching the broadcast wave line	317(24%)	119(09%)	884(67%)	593
3	Social studies teacher summarize the radio lesson after the broadcast.	330(25%)	92(07%)	898(68%)	636
4	Social studies teacher is committed to deliver radio programs once per week.	290(22%)	118(09%)	912(69%)	793
5	Social studies teachers are committed to compensate radio broadcast whenever he/she missed it at a regular time broadcast	304(23%)	132(10%)	884(67%)	706
6	Social studies teacher encourages us to respond for radio questions	277(21%)	118(09%)	925(70%)	831
7	Social studies teachers are committed to use additional teaching materials that support radio programs. e.g., map, glob, chart.	511(39%)	119(09%)	690(52%)	388

$P > 0.05$

In table 4.5.1, the frequency distribution confirms that the total amount of the respondents who expressed their opinion that social studies teachers were not ready to give opportunity for students to discuss about radio lesson before & after broadcast, & didn't summarize lessons after broadcast, amounts 69 percent, & 68 percent respectively.

In the same vein majority of the respondent students (67 percent) asserted that teachers waste time in searching the broadcast wave line. This is also asserted during interview with directors, teachers, media center personnel that teachers didn't know where the wave line of Bahir Dar, Gondar & other radio stations in the region. Identifying broadcast wave line didn't require training; instead committed teachers to use radio can easily find it. Besides, the researcher also observed teachers who were confused to identify the exact meter hearth (MHz) & waste some 5 or 6 minutes. Students were restless during such situations.

Moreover, 69 percent & 70 percent of respondents negatively responded on the commitment of teachers to deliver radio programs, encourage students to respond for radio questions respectively. From this one can understand that the gap of commitment on the discussed issues is wide.

Besides, 67 percent and 52 percent of respondents said the opinion that missed programs are not compensated; the teachers are not committed to use additional teaching materials respectively. The computed chi-square for all items indicates the significant difference between the observed frequencies and the expected ones.

The finding from the interview with teachers indicated that almost all teachers asserted that they are willing to continue to use radio. But very few teachers in North Gondar mainly in Gondar town responded negatively. The reason for this according to them was that "radio is repetition, the teacher can make better instruction than the radio, & that it is time killing." The researcher identified such teachers during the field work that they were dictating old lecture notes for the students. Their commitment might be eroded due to the fact that they are highly attached to the lecture method for long years instead of using the technology.

Based on the interviews most of school teachers are not committed to prepare radio lesson plan. The reason for this according to them is that radio teachers guide can be used as lesson plan. It is easy for one to understand the gap of commitment is wide in planning the radio lesson.

From the interview, the researcher identified that majority of school teachers in West Gojjam were found to prepare radio lesson plan. This was not because of some additional support from the wereda or bureau but because of the commitment of the schools to use radios.

Commitment of the teachers is also identified through observation. Classroom teachers are mediators between radio teacher & the classroom students. Committed teacher organizes pre-broadcast, during broadcast & after broadcast activities effectively to maximize radio utilization. A Committed teacher performs the radio tasks well even under inconvenient circumstances. Thus to what extent teachers perform radio activities before, during & after broadcast is observed to infer their commitment towards SSRP utilization. To asses this issue observation check list with Yes & No option was used.

After observation the results of each item under each radio activities were summed & percentage was computed to give the results presented from table 4.5.2a to 4.5.2c

Table 4.5.2a Distribution of the roles of teachers' performance before broadcast

Sr.No	Roles of the teacher	Performance N= 48		Chi-square
		Yes	no	
1	Puts radio broadcasting sign on the door	15(31%)	33(69%)	7
2	Arranges seats	16(33%)	32(67%)	5
3	Lights the room	19(40%)	29(60%)	2
4	Airs the room	14(29%)	34(71%)	8
5	Puts radio in the right position	13(27%)	35(73%)	10
6	Uses additional teaching materials	16(35%)	32(67%)	5
7	Writes topic of the lesson on the blackboard	12(25%)	36(75%)	12
8	Plans the lesson	13(27%)	35(73%)	10
9	Asks questions about the lesson	18(38%)	30(62%)	3
10	Reminds to listen during broadcast	12(25%)	36(75%)	12
11	Revises previous lessons	15(31%)	33(69%)	7

$p > 0.05$

From the observed programs most (69, 67, & 71 percent) of teachers activities like putting radio sign on the door, arranging seats, and airing the room respectively were not performed before the broadcast. In the same vein most (73, 67, 75 & 73 percent) of the roles of the teachers like putting the radio on the right position, using additional teaching materials, writing topics of the lesson and planning for radio lesson respectively were not performed. Besides, it is also evident that from the observed programs most (75 & 69 percent) of teachers' activities like, reminding to listen and revising the previous radio lesson respectively were not performed.

The computed chi-square value for all items, except the activities of the teacher to light the room and ask question about the lesson show significant differences between the observed frequencies and the expected ones.

Moreover, during the broadcast, the instructional performances of observed teachers were found to be not satisfactory (see table 4.5.2b).

Table 4.5.2b Distribution of the roles of teachers' performance during broadcast

Sr.No	Roles of the teacher	Performance N =48		Chi-square
		Yes	no	
1	Turns on radio on time	14 (29%)	34 (71%)	8
2	Monitors attentive listening	20 (42%)	28 (58%)	1
3	Encourages to respond on time	32 (67 %)	16(33%)	5
4	Speaks at the right time	15 (31%)	33 (69%)	7
5	Doesn't move to the back of a class	16 (33%)	32 (67%)	5

$p > 0.05$

Nearly half (42 percent) of the observed programs teachers were found to monitor attentive listening during radio broadcast. Whereas, in most (71 & 69 percent) of the observed programs, teachers activities like turning on radio on time and speaking at the right time were failed to be performed during the broadcast. Besides, in most (67 percent) of observed programs the teachers move to the back side of the class during broadcast. Whereas, in most (67 percent) of observed programs the teachers encourage students to respond on time.

The computed chi-square value for all items, except monitoring attentive listening during broadcast indicates the significant difference between the observed frequencies and the expected ones.

Table 4.5.2c Distribution of the roles of teachers' performance after broadcast

Sr.No	Roles of the teacher	Performance N =48		Chi-square
		Yes	no	
1	Clarifies main points	14 (29%)	34 (71%)	8
2	Encourages students to ask questions	17 (35%)	31 (65%)	4
3	Encourages/leads discussions	15 (31%)	33 (69%)	7
4	Assigns tasks	25 (52%)	23 (48%)	.08
5	Concludes radio lesson	16 (33 %)	32 (67 %)	5

$P > 0.05$

As far as teachers activity after broadcast is concerned, table 4.5.2c shows that in most (71,65,69 & 67 percent) of the observed programs teachers failed to clarify main points, encourage students to ask, encourage or lead discussion and conclude radio lessons respectively.

Whereas, in more than half (52 percent) of the observed programs the teachers assign tasks for the students after broadcast. The computed chi-square value for all items, except assigning task after broadcast is greater than the critical value thus; there exists statistically significant differences among the roles of teachers after broadcast.

In sum, in most of the observed programs teachers failed to perform the majority of radio activities before, during and after broadcast. From this we can infer that teachers did not give attention to perform radio activities. This indicates that teachers are less committed to facilitate radio utilization. One of the reasons for less commitment of teachers may be failure of Educational Bureau and Media centers to provide advocacy, awareness and training about proper utilization of radio programs.

4.2.4. 2. Commitment of Directors in Performing Radio Activities

Table 4.5.3 Opinion of students on commitment of directors in radio activities

Sr. No	Statements	Responses (N=1320)			
		Agree	Undecided	Disagree	Chi-square
1	School director is committed to supervise the regular provision of radio programs.	370(28%)	119(09%)	831(63%)	593
2	School director shows readiness to safeguard radios from theft.	251(19%)	198(15%)	871(66%)	636

$P > 0.05$

The majority of students (63 and 66 percent) negatively rated on the directors commitment to provide regular supervision and readiness to safeguard radios from theft, respectively. The computed chi-square for all items indicates the significant difference between the observed frequencies and the expected ones.

Interview result also indicated that committed directors allocate money for dry cells & radio sets, follow up whether radio lessons are used or not & give advice for teachers to use radios. However, less committed directors & teachers blame simply on some one else. They didn't utilize school resources to facilitate the use of radio programs. For instance some of the schools in Bahir Dar & Gondar towns & one of the schools in West Gojjam blame on budget constraint to buy dry cell while electricity is available in the school. They sometimes happened to buy dry cell. However, it was easy to install sockets in classrooms or install wire up to the tree shade to use electric power. But it is not to advocate that listening under tree shade is effective. It seems that

most of school personnel are less committed to take time & think the easiest, less costly & sustainable way of utilizing the available resource.

4.2.4.3 Commitment of Educational Personnel at Bureau, Wereda and Media Center

Social studies teachers & school directors were asked to comment on the commitment of educational personnel at top levels (bureau, weredas and media centers). Most of the informants assured that educational personnel at Bureau, media center & wereda education offices are less committed to facilitate radio utilization. Commitment can be expressed by their readiness, willingness & attention given to radio utilization. The aforementioned educational institutions are negligible to facilitate the utilization of technology under discussion. The supervision, inspection, budget allotment to facilitate radio utilization seems to be completely ignored in surveyed zones. They didn't establish feed back system. They also didn't ask whether radio programs are utilized or not. All are indicators of lesser commitments.

Wereda education office personnel also agreed that the commitment of educational bureau & media centers are minimal. According to the respondents are the bureau & media center didn't pay attention for radio utilization except broadcasting the programs. There are consultation meetings twice a year & quarterly report evaluation meetings set by education bureau, but issues on radio education were not considered at these meetings. The communication among bureau, media centers & weredas seems to be loose. In this regard, one of wereda education office heads at north Gondar asserted:

There is a gap between education bureau, media centers & wereda education office regarding radio utilization. What we facilitate is what we are asked to report from the bureau. the Bureau pays attention to improve the number of students, we too. for instance, our wereda education office received only one letter in this year concerning the IRI (interactive radio instruction). No more communication was made between wereda & education bureau & media center on radio issues (27/04/04).

The resource person also confirmed that BDEMDECC should arrange conditions to work in coordination & integration with the bureau, conduct research & present during meetings arranged by the bureau. This can then attract attentions & improve commitments.

Besides, surveyed educational media program production team leaders & producers also confirmed that the attention, readiness and willingness of educational bureau regarding radio utilization is less. The most common argument according to the respondents is that higher bodies at bureau didn't allocate enough budgets; there is no moral incentive for media experts. Salaries

assigned for the task are less than other experts in the region and the same experts in the other regions. The bureau does not visit the media center. Due to these reasons experts at media center continuously shift themselves to other institutions.

Education Bureau Head also agreed with comments indicated by program production team & program producers. In this regard he explains:

On the side of educational leadership, when we think to implement education policy & to bring about behavioral change based on the objective, we didn't take time to think what resources the region has. Particularly we didn't give attention to use educational radio to attain the objectives of educational policy. It may be due to lack of awareness in the technology. The other basic problem towards commitment to facilitate radio utilization is related to the attention given to organizational structure of the media centers. Their carrier structure is not attractive to let the experts stay in the organization. As a result there is higher mobility of experts from the media center to other sector even region. Due to this the region loses trained, well acquainted experts in the media center. Without stabilized experts I think it is not possible to bring basic changes designed to be obtained through the medium (02/04/04).

However AREB Head also asserted lack of commitment of media center in the activity as follows:

Media Center is under utilized in the region. One of the reasons for it is the less responsiveness of the media center. For instance civics education is a global & national issue. The curriculum is designed for primary schools. But since it is new there are no references, & trained teachers. In such cases, we expect the media center to support primary schools civics education. To accomplish this task commitment plays great role from the side of the media center. However, civics education is not supported by radio (02/04/04).

Moreover, the education Bureau Head also asserted that "experts in the media are not able to integrate themselves with the education bureau. Rather consider themselves as detached bodies." According to the resource person if media centers are able to bring new things that convince the bureau they would get a positive response. He also added that the program producers have to be committed to perform continuous, integrated & organized tasks. For instance, producers have to evaluate the scripts whether they are standard, support the teacher & the curriculum, and synchronized with formal education system or not. Of course there is some trial in this regard but it doesn't satisfy the critical points I mentioned (continuity, integration & organization).

As a whole the resource person confirmed that the media centers need additional budgets to realize their objectives in the future. At the same time the bureau showed willingness to visit the media centers so as to encourage radio utilization.

4.2.5 Radio Support Service.

4.2.5.1 Radio Sets and Power Supply

Students were asked to indicate whether shortage of radio sets, the reception quality of the radios and shortage of power (dry cell and electricity) hinder the effectiveness of radio utilization or not. Table 4.6 depicts details.

Table 4.6 opinion of students on radio support services

Sr.N.	Statements	Frequency & percentage of respondents N=1320			
		Agree	Undecided	Disagree	Chi-square
1	Shortage of radio in our school hinders to listen SSRP	673(51%)	145(11%)	502(38%)	330
2	Shortage of dry cell or power supply in our school hinders to use radio programs	700(53%)	92(7%)	528(40%)	446
3	Reception quality of radios in my school is low.	660(50%)	106(8%)	554(42%)	393

$p > 0.05$

The majority (51 percent) of respondents in surveyed schools in the region agreed that shortage of radio sets hindered radio utilization. And 38 percent of the respondents didn't agree on shortage of radio sets. On the other hand, majority of the respondents (50 percent) rated that reception quality of radio sets is impeding radio utilization; whereas 42 percent responded that quality of reception is not a problem in their schools. As far as power is concerned, majority (53 percent) revealed that absence of electricity or dry cell hinders radio utilization. while, 40 percent of the respondents didn't agree on the shortage of power supply.

The frequency of respondents (students) who indicated the radio support service impedes radio utilization exceeds the frequency of respondents that indicated the absence of the problem.

As has been depicted in table 4.6, computed chi-square for all items is significantly different from the expected ones.

As far as radio support (radio sets, power supply, teachers' guide, utilization training, participation in radio content selection, and synchronization of schedule) is concerned, school

directors, subject teachers, school media teachers, wereda education offices, education bureau & media center heads and experts were interviewed.

Most of the school directors in surveyed schools of the region commented that the availability of radio sets in their schools is sufficient. But school teachers asserted that due to shortage of radio sets they waste radio periods during exchanging radios from one section to the other or from R₁ to R₂. According to them from one radio period (40 minutes) 5 minutes can be wasted during exchange of radio sets. The reason for the difference between the responses of the directors & the teachers may be due to the fact that the school directors in most of the schools are less committed to supervise regular provision of radio programs (see table 4.5.3). Both directors & teachers asserted that some of the radio sets available are non- functional, some are of poor reception quality due to long service.

Few schools in surveyed zones have solar radios. But most of the solar radios are not functional. The teachers asserted that weather conditions affected the operation of the solar radios, i.e., at cloudy days fluctuation of power hinders the solar radios to be functional.

All surveyed schools have at least one tape recorder. But rural schools are not in favor of using it due to its higher dry cell battery consumption. In this regard, one of wereda education office heads in North Gondar Zone asserted that schools asked the wereda education offices to change tape recorders by small radios that can consume fewer dry cells than which they have. From this it is also possible to understand that power supply (dry cell) hinders radio utilization in the region. School directors reported that there are some teachers who are careless in handling the radios. The teachers assign students to hold radios when they move from one section to the other & from classrooms to staff rooms. This, according to directors, is wrong that the students can tune in the wrong direction & damage the radio. The director in one of the schools in Gondar also reflected that "teachers tune radios here and there because of their difficulty in locating stations. It then damages the tuning system of the radio."

Interview results also indicated that most weredas, including Bahir Dar Special Zone do not allocate finance to buy radios for schools, except one of the weredas in west Gojjam. The reason for not allocating budget according to the respondents is a matter of priority. The Amahara National Regional State educational leadership, organization, social participation & finance guide document (2004:33) indicated that one of the roles of wereda education offices is to allocate finance for purchasing radios, TV sets & dry cell & maintenance. But the present research

identified the opposite; i.e. weredas assign schools to do so. This seems to show less attention given to the technology & low commitment of the respective bodies to the technology.

In this line, one of the wereda education office heads argued that the reason why the offices do not allocate finance for radios, he explains that: "Since it is possible to run the educational activities without the radio support, I found it unadvisable to prioritize it in budget allocation."

Educational bureau heads, & Media centers also asserted that there is shortage of radios in schools. According to them the schools are responsible to buy radio sets. In this regard BDEMDECC explains:

Radio is a cheap electronics that every school can buy. Now a day the society is building schools. For such a society buying radio can not be a problem. Schools have to plan projects & deliver them to the society at the end of the year or any other day where families of students are available at schools (01/04/04).

4.2.5.2 Synchronization of Broadcast Schedule

In most of the surveyed schools the number of radio sets, teachers & radio broadcast schedules were not synchronized. There were few schools that didn't post radio time tables, there were also some schools that posted radio time table but with combined classes to synchronize the number of radios, repeats of broadcasts with number of sections & teachers.

Interview with school directors, teachers & school media teachers indicated that the main problem to synchronize radio time table with the time table of the school is shortage of repeats of broadcast from radio stations. Number of repeats of broadcast from one radio station for social studies is two per week in one shift. A school having only two sections for one grade level can easily synchronize radio time table by using one of the most audible radio stations. Schools that have four sections at one grade level can easily synchronize radio time table from two radio stations, though this requires using antenna for the less audible radio station. Although this is the reality, there were schools that used one radio station having a number of sections greater than four. Such types of schools are found in all surveyed zones in different amount. In this regard one of the school directors in North Gondar stated that:

The schools used combined sections. This is because repeats of broadcasts are not enough for the number of sections. The school used only Gondar radio station. This station has only two repeats of social studies radio broadcast per week while number of sections for one grade level ranges from 4 to 6. Two or three sections having 200 or 300 students are combined & listened under the shade of the tree. From one radio period students used 15 minutes (the broadcast session) only. One group left the tree shade for the other group after 15 minutes of the broadcast section (23/03/04).

The researcher of this study identified that in such schools there are no pre-broadcast & post-broadcast activities. This is because combined sections are dispersed to their own sections after broadcast. To move to tree shade (listening place) & go back to their class rooms may take not less than 10 minutes. Besides, there is also wastage of 15 minutes due to the fact that one subject teacher who combined 3 sections can not be available at three sections within a single period after the combined sections are dispersed to their own classes. In such schools radio education is wastage of time, & the program itself is not utilized effectively.

One of the schools in Bahir Dar use radio programs for only some sections in a given semester. This is because of inability to synchronize broadcast repeats with number of sections. The director, in this regard, stated that those sections which are not exposed to radio programs in one semester will get chance in another semester.

On the contrary, though they are two, the researcher identified schools that used their efforts to synchronize repeats of radio broadcasts with the number of teachers & sections, i.e., one at west Gojjam (Mecha wereda, Wetet Abay primary school) & the other is at North Gondar (Hebret primary school). The former synchronized radio period from the broadcast itself, the latter used cassette recorded program.

The number of sections at a single grade (from grades 5 to 8) at Wetet Abay primary school ranges from 4 to 6. They used Bahir Dar & Gonder radio stations. The numbers of repeats of the broadcast per week are 4 from both stations. These repeats can only serve 4 sections for a single grade level. Two sections at a single grade can't receive broadcast unless a special mechanism is designed. To alleviate the problem therefore, the school assigns two teachers to instruct a single grade level at different sections of the same subject (social study). For instance, a grade 8 having six sections is taught by two geography teachers (3 sections each) to synchronize repeats of the broadcast. Signal from Gondar radio station is some how weak for this school. To alleviate the problem they identified the type of radio that can receive weak signal from Gondar radio station & assign it for sections that use Gondar radio station (interview with director & subject teachers.) Number of sections, at a single grade (from grade 5-8), in Hebret primary school ranges from 5 to 9. They use Gondar radio station only. This can serve only two sections at each grade level. To solve the problem of synchronization they use cassette recorded programs. The school media teacher records the programs aired from Gondar radio station at the first day of the week (Monday) & distributes the cassette for subject teachers in order to use it.

The director & subject teachers at Hebrat primary school indicated that programs recorded at schools are not clearly audible. Thus, to provide quality records the media center has to make programs ready on compact cassette to be recorded when the need arises from the schools.

Moreover, Educational Bureau Head confirmed that the effort of schools to utilize radio programs is better than the other educational sectors. He added that "however schools face shortage of radio sets, dry cell, sustainable maintenance system & continuous training on radio utilization.

4.2.5.3 Radio Teacher's Guide

Radio teachers' guide found to be impeding factor of radio utilization in many surveyed schools. In this regard, though they failed to report which grade level suffers, majority of wereda education office heads & formal education desk heads revealed that the distribution of radio teachers' guide is not fair. School directors & subject teachers also reflected the same idea. At the same time, media center heads & program production team agreed on the shortage of radio teachers' guide. The reasons according to BDEMDECC Head is that "when teachers transfer from one school to the other, they usually do not give back radio teacher's guides to the school, & Wereda education offices do not have statistical records that can help to redistribute from schools with extra copies to schools that do not have a copy."

School teachers that use SSRP without radio teacher's guide explained that they use only 15 minutes radio broadcast with out consideration of pre & post broadcast activities. Besides they do not show maps, charts, or globes when radio teacher assigns them to do so. Due to this reason, students can consider them as they are careless & are not willing to teach properly.

Shortage of radio teacher's guide may cause psychological problems. The teacher may dislike the radio programs for they portray him as he is not committed teacher.

On the other hand, one of the weredas in west Gojjam tried to redistribute radio teacher's guide from one school to the other based on the information that show distributions. This can indicate how far this wereda is committed to facilitate radio programs utilization.

4.2.5.4 Radio Utilization Training

Subject teachers, media teachers & school directors were interviewed to comment on their training conditions at college and/or teacher training institutions & in-service training on the radio utilization. Out of ten informant teachers with long service (>10years) most of them (8)

asserted that they have received in-service trainings before 8 years. The rest of social studies teachers (13) whose service years is less than 10 years reported that they didn't receive radio utilization training at both college and in-service training. Concerning the training of directors out of fourteen directors interviewed, most (10) reflected that they have taken training for radio utilization at college during directors' summer course and in-service training in this year, on IRI (Interactive Radio Instruction) English program. The rest (4) are not exposed for radio utilization training. From this we can understand that most of the teachers are not exposed to the radio utilization training. Thus it is quite clear that teachers use radio broadcast periods based on trial & error basis. GEMC head asserted that the media center tried to provide radio utilization training for the would be teachers at Gondar teachers college last year & some other year. But in this year the college didn't call them for the purpose. AREB head also asserted that colleges in the region underutilize the media centers.

Training of program producers & wereda education office heads & formal education desk heads is also assessed. Due to restructuring of educational organizations, most of wereda education office heads & formal education desk heads do not have radio utilization training. When the capacity of program producers is built through continuous training it is inevitable that the quality of programs produced can be improved, the capacity of producers to retrain user teachers, directors & other concerned education sector personnel will be strengthened. But most of the program producers have one month training before 6 years & more than that (interview with program producers). This is also indicated by educational bureau head as follows: "program producers have no external exposures & continuous training that would help them to accomplish their tasks & facilitate good conditions for radio utilization."

4.2.5.5 Participation in Radio Content Selection

All of the interviewed teachers & school directors, except two at Bahir Dar schools, reported that they were not invited to participate during radio content selection. The program producers also indicated that only few teachers at Bahir Dar were invited during radio content selection. In sum, the results of the finding from the students' questionnaire and interviews with different educational personnel confirmed that the radio support service in surveyed areas is not satisfactory.

CHAPTER FIVE

5. Summary, Conclusions, and Recommendations

5.1 Summary

5.1.1 Summary of the Introduction and Research Method

Radio is a powerful instrument to effect educational purposes. However, the full potential of this tool can only be realized if the source end & the receiving end understand precisely the best way of using it. The emphasis of this study was whether or not SSRP, at second cycle primary school in Amhara Region are effectively utilized to attain the intended curricular objectives. More explicitly, this study was undertaken for the following specific purposes: to identify the number of social studies educational radio programs used, to analyze the impact of quality of SSRP on utilization, to assess the extent of technical services provided for radio utilization, to examine commitment of educational personnel at all levels in facilitating radio utilization, to find out the condition of radio support service (radio set, teachers guide, training, participation in planning etc.) for effective radio utilization, & to assess the impact of interest of the learners for the effective radio programs utilization. In accordance with these objectives, the following basic questions were raised:

1. How many of the social studies educational radio programs of the 2nd cycle primary schools are regularly used in Amhara Region?
2. What are the conditions that influence utilization of social studies educational radio programs at SCPS in Amhara Region?

A multi-approach study design was used as the basic approach of the present investigation. Both quantitative & qualitative data collection instruments were used to obtain adequate information. In the selection of sample zones (Western Gojjam, North Gondar & BahirDar Special Zone), weredas, schools and students a criterion purposive sampling technique was employed. Out of these, three weredas from West Gojjam & North Gondar each & Bahir Dar Special Zone were considered. In general total sample schools drawn for the investigation were 33. Out of these 17 & 16 were chosen from urban & rural areas respectively. To avoid gender bias an equal chance for both sexes in each grade level was also given.

Consequently, 1320 students of the SCPS were made fill in questionnaires. Besides, forty three school personnel (directors, teachers, and school media teachers), wereda education office, educational media centers, and education bureau personnel were interviewed to fill the gap of information.

Moreover, to see the ongoing situation of the program, two purposively selected SCPS in Bahir Dar were observed.

For answering the basic questions mentioned above, the results or the finding are presented in two main parts: the number of SSRP used, and the impediments of utilization.

5.1.2 Number of SSRP Used

Students' questionnaire indicated that the number of SSRP used vary from school to school in surveyed areas. In some schools programs were not used at all, in most of the schools programs were used partially, and in any of the schools there was no full utilization of the programs. Congruent to this interview results of teachers & directors indicated that half of the schools at Bahir Dar & Gondar did not completely utilize SSRP. Some of the reasons are less attention given by AREB, Media centers and Wereda Education offices and failure in quality of the programs. Besides as informants indicated, due to different reasons all SSRP are not used fully. Moreover there are also few disadvantaged schools in which they can not use radio broadcasts due to their location in depression areas.

5.1.3 Impediments in Utilizing SSRP

5.1.3.1 Quality of SSRP

Seen from the perspective of mode of presentations, it become clear that radio formats were not designed to engage students in learning; enough pauses were not assigned for students to respond. Interview results also agreed on these issues and added that actual experts in a given content area were not invited to give professional explanations. Instead the program producers acted as if they were actual experts in a given lesson.

What is interesting is that, the radio teaching format that creates discussion between the radio teacher and radio students was found to be used as a good model of creating student-centered teaching method. But the teachers do not apply the instructional method used by radio teachers.

In the same vein when the quality of the program is assessed from the personal enhancement perspective, respondents positively rated that SSRP were important to improve critical thinking, support retention and to teach better than class room teachers. When novelty as quality aspect is considered, most of the programs were directly copied from the students' textbooks. Due to this,

teachers considered the programs as repetition and time killing. Regarding the quality aspect of the radio programs mainly less interactive nature, insufficient pause, and direct repetition of the text book hindered the teacher to use the radio lessons properly and regularly.

5.1.3.2 Students' Interest

The finding revealed that most of the students (84 percent), informant teachers, directors and media teachers agreed that students prefer to learn with radio. Thus, the interest of the learners is not an impeding factor for utilization of radio programs.

5.1.3.3 Technical Factors

The highest proportion of students and school personnel in surveyed areas expressed dissatisfaction with the audibility of the radio broadcast. The reasons for this problem were: the transmitters & other machines were outdated, have given long service & damaged due to different reasons, lack of shelves to protect reel from dusts & long service of the reel for a given program, unable to tune the exact wave line promptly in the part of the teacher, and failure of schools to install antennas.

For the most effective use of radio in education, repair & maintenance must be undertaken on time. But media centers were not able to provide the service for the schools due to lack of spare parts & technical staff. As a result technical factors contributed for less radio utilization in the surveyed areas.

5.1.3.4 Commitment of Personnel

Commitment of personnel at both ends (producer & user) was not satisfactory. Results from questionnaire, interview & observation revealed that teachers waste radio periods in searching the wave line, pre & post broadcasts were not used effectively, missed radio programs were not compensated, additional teaching materials were not used and teachers were not committed to deliver programs once per week. This is due to less attention, readiness & focus towards educational radio by school personnel.

The interview result revealed that the source of failure of commitment was the education bureau. Less attention paid for the media from the bureau caused the focus of the weredas to be low. This less attention of weredas again caused the school personnel to be less committed to accomplish their tasks concerning educational radio.

However, teachers & directors commitment in terms of their willingness to continue working with radio is high. This can indicate that there is a good base for the future to utilize radio programs effectively if the attention of bureau towards the media is improved.

5.1.3.5 Radio Support Service

For an efficient education, all the equipment to be used for radio broadcasts must be available at schools. Seen from the perspective of radio sets and power supply students' response from questionnaire & interviewed teachers asserted that shortage of radios, power supply & less reception quality of the radios were determine the utilization of SSRP.

As far as matching of broadcast programs with school schedules is concerned , most of the schools failed to synchronize radio broadcast with the school time table. Thus, they combined two or three sections for listening to the programs under the tree shade. In such circumstances, the schools used only 15 minutes broadcast to leave the tree shade for other groups. Thus, radio programs were not effectively utilized. Possible reasons can be lack of focus & training of teachers on radio utilization.

The distribution of social studies radio teachers guide was not fair in surveyed schools. This may be one of the reasons that teachers fell to prepare radio lesson plan.

Besides most of social studies teachers, wereda education heads & experts were not exposed for radio utilization training. One of the reasons for less utilization can also be attributed to the deficiency of training. Along with this, most program producers were trained only for a one month before 6 or 7 years ago. Failure of the quality of radio programs in terms of interactivity, pause, uplifting the text can be attributed to lack of well trained producers.

Moreover, almost all teachers & directors have never been involved in radio content selections. This indicates lack of attention of the media centers & Education Bureau in involving the users during planning & producing the programs.

As a whole, the gap that existed in the radio support service was also found to impede effective radio utilization.

5.2 Conclusions

From the findings of this study, the following conclusions can be drawn:

1. Number of radio programs used. According to the standard set by EMA schools are expected to use one radio program per week. However, at present, SSRP at any one of SCPS are not utilized fully. Besides, there are schools that completely ignore to use the programs. Most of the programs are partially used in the region. In general, utilization of

programs is not uniform in the schools. Educational personnel at bureau, media center and weredas are not aware of it. This is then wastage of instructional time and immense proportions of resources. Thus, there is a need to devise a mechanism such as follow up, forum, training etc. for those who do not use programs completely and to improve partial use to full use.

2. With varying degree, the conditions that contribute to the absence of use (completely ignorance) in some schools, partial use, and lack of full use of the SSRP in the region include the following.

- A. **Quality Aspect**

Students benefit when they are engaged in learning. But the present research identified that the SSRP were one way communication in which students are passive listeners. At the same time the duration of pause was not enough for participation. Besides, the objective of radio programs is to enrich the syllabus but not to repeat the students' textbooks. But the present SSRP are directly copied from the students' text book. Thus, the program producers need to improve the programs to be effectively utilized.

- B. **Technical Factors**

Since hearing is crucial during learning from radio clear audibility is essential. Programs that are not heard clearly develop attention deficit of the learners and teachers towards the broadcast. But broadcasts in most parts of the region are less audible. Antenna can improve the audibility of the broadcast from distance radio stations. But almost all schools failed to install it. Maintenance service provided for schools is not satisfactory. The shortage of functioning radios hinders to use programs.

- C. **Commitment of Educational Personnel**

To broadcast quality programs and to utilize them effectively, readiness, willingness, attention and cooperation at both ends are essential. However, the finding in this study depicted that commitment of educational personnel at all levels was not satisfactory. The commitment of the Education Bureau & media centers (producing end) is found not to go beyond broadcasting the programs. The commitment of the user ends (schools) doesn't exceed more than switch on the radio in which pre and post-broadcast & missed programs doesn't have attention. In sum, due to less attention and readiness from the bureau, media center, weredas and schools educational radio in the region is under utilized.

D. Radio Support Service

The highest proportion of students and teachers expressed dissatisfaction with supply and quality of receivers and power. Shortage of even one radio can hinder the regular use of the radio programs. At the same time due to poor quality radio reception radio periods are wasted without benefit.

Most of the schools in the region failed to synchronize radio broadcast repeats to the school time table. To alleviate the problem two or three sections were combined to listen under the tree shade, utilization of radio under such circumstance is found to be wastage of 50% and 33% of the time of grades 5 to 6, & 7 to 8 respectively.

Unfair distribution of social studies radio teacher's guide was also the impeding factor of SSRP in many of the schools in the region, furthermore, radio teaching without guide is wastage of time. Besides, teachers that use the programs without guides ignore to use the radio programs.

Training builds capacity of supervisors, program producers and school teachers and directors to utilize radio programs effectively. Thanks to USAID/BESO project, that provides training on IRI English radio programs for wereda education office heads and experts, directors and English teachers this year. Otherwise most of the teachers, directors, wereda education heads and experts were not exposed to radio utilization training.

Most of the program producers were also trained on basic radio program production training for only a month, before 6 or 7 years. One of the reasons for the failure of quality of the radio programs in terms of engaging students in learning, providing enough pauses and presenting noble ideas is attributed to lack of training.

Participation of teacher in radio content selection helps for the inclusion of contents that could be important for the learner and that the teacher also feels sense of ownership on the programs and increase willingness and readiness to use the programs effectively. However, teachers' participation in radio content selection is almost none existent in all schools in the region.

3. From the context of interest of the learners in using the media it is found that students were highly interested to learn through radio. Teachers & directors also showed willingness to continue working with radio. Hence, strengthening such needs is vital. To do so, due attention from bureau towards educational radio is paid, it could pave way to minimize the problems & thus the media can be effectively used.

5.3 Recommendations

Whatever the reasons may be under utilization of the programs is wastage of immense proportions of time, manpower and resource. Thus, recommendations that could be used to facilitate effective radio programs utilization are in place here:

1. Number of Programs Used.

Amhara Region, with only 25 percent of qualified teachers in SCPS can benefit when educational radio is used fully, uniformly and regularly in all schools. However SSRP are not fully utilized in any of the schools and there are schools that do not use even a single program. To benefit the advantage of the media, radio programs should be utilized in all SCPS fully and regularly. To attain this,

- 1.1 School directors should have to make a close follow up on SSRP and send feedbacks to the media centers for improvement.
- 1.2 School teachers should have to plan and provide SSRP regularly and compensate when programs are missed.
- 1.3 Schools that are disadvantaged to use radio programs due to their location (at depressions) should be provided recorded radio programs.

2. Quality of the Program

- 2.1 To see that SSRP are effectively utilized, particular emphasis should be given to produce interactive nature programs, & give enough pause for the learners to respond orally & physically.
- 2.2 Since radio is expected to include novel ideas in supporting the syllabus that the teacher can not do, SSRP should include additional explanations and examples that are not found in the students' text to avoid a mere repetition.
- 2.3 The producer, being the overall in charge of program production, should be thoroughly trained to build his/her capacity to produce quality radio programs. The libraries in the media center should be well facilitated with internet to provide producers well documented resources. To minimize quality problems sample programs should be pre tested (pilot broadcast) before the actual broadcast in the areas where media centers in the region are found.

3 Technical Factors

- 3.1. Shelves that protect reel (recorded programs) in the radio stations should be made available. Schools are legally allowed to use their internal incomes, but not educational media centers. Therefore, since educational media centers serve hundreds of schools in the transmitter coverage area it should strive to convince the regional planning & finance bureau to use internal incomes to purchase shelves & fuel for the generator when electric power fails.
- 3.2 It is time consuming & difficult task to transport radio sets to media centers for maintenance. It is also costly for media centers to provide adequate maintenance service for schools. Thus, weredas and media centers should apply a cost sharing mechanism to alleviate the problem.
- 3.3 Antenna installation at schools requires simple technical know how & small finance that could be afforded by schools. Therefore, to improve audibility of the broadcasts mainly from radio stations at a distance schools should install antennas.
- 3.4 To alleviate shortage of technical staff the media centers should have to recruit additional technicians.

4 Commitment of Personnel

- 4.1 Lack of attention and readiness is one of the reasons for failure of full and proper utilization and ignorance of some schools to use the programs. To improve commitment of educational bureau, wereda education office & school personnel towards effective radio utilization awareness should be created by the media centers. To do so, media centers should plan ahead to use consultation meeting conducted twice a year and quarterly report evaluation meetings arranged by the bureau.
- 4.2 Media centers need to integrate themselves with Educational Bureau ,Wereda Education Office and schools and establish regular follow-up mechanisms to improve radio programs utilization.
- 4.3 Media centers should also create awareness to improve commitment of school personnel. To attain this media centers should use cost effective awareness creating mechanisms, like radio station itself during schools' break time in the morning and afternoon shifts, cluster school centers and teachers colleges. Furthermore, utilization training should also be given for teachers & directors both to improve commitment & build capacity that would help to optimize utilization.

Radio Support Service

- 4.4 Radio committee (club) should be established at the school level so as to involve in awareness creating & income generating activities to buy radio sets & batteries.
- 4.5 To help the schools in purchasing quality radios that can receive weak signals specifications should be prepared by the media centers.
- 4.6 Producers should be able to obtain ideas from subject teachers before writing programs through questionnaire from the cluster schools.
- 4.7 Wereda education offices should survey the distribution of teachers guide to re distribute extra copies for those schools with shortage of it. Or should copy it to satisfy the needs of the disadvantaged schools.
- 4.8 Listening under tree shade is wastage of educational radio programs & instructional time. Therefore schools should synchronize radio broadcasts with classroom time table by assigning two teachers in different sections of the same grade level, or assigning the same grade level in different shifts, or using recorded radio programs.
- 4.9 Unable to teach the same contents in the same week by radio and classroom teacher is mere repetition and wastage of instructional time. To alleviate this, teachers should have to synchronize their annual plan with radio lessons by consulting the syllabus and radio teachers' guide. The directors should also check whether the annual plan is harmonized with the radio programs or not.
- 4.10 The director and the media teacher need to have a separate radio notebooks that would help to provide brief notes for producers on a day to day program.
- 4.11 Media centers need to organize training seminars both in house and external. Program production and technical teams must create net works and request both national and external institutions to sponsor seminars and training programs.

Finally, it is believed that impact of the SSRP on the quality of respective education is basic variable which could either facilitate or retard proper utilization. This variable was not, however, treated in this study because of time & money constraints. Hence, the researcher would like to recommend that other interested researchers in the areas, especially, the educational media & distance education coordinating center experts in the region, should consider this variable.

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- ነገደር ትምህርት መገናኛ(1994 ዓ.ም) ፣ ከፋሲል አምባ 5ኛ ዓመት በዓል ፣ ጎንደር ብሩሽር።
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- ተስፋዬ ስምረታ (1991 ዓ.ም) ፣ የትምህርት ሚዲያ ፕሮግራሞች አደረጃጀት፣ ዝግጅት፣ ሥርጭትና አጠቃቀም ለ9ኛ ክፍል ትምህርት በሬዲዮ ፕሮግራም ርዕስ መረጣና ሲለበስ ዝግጅት አውደጥናት የተዘጋጀ፣አዲስ አበባ ትምህርት መገናኛ ዘዴዎች፣

Appendices

Appendix I Personal profile of school personnel

Items	Choices	Respondents		
		Teachers	Directors	School media teachers
Sex	Male	20	13	5
	Female	3	1	1
	Total	23	14	6
Qualification Level	12+2	15	5	2
	12+ TTI	3	7	3
	12+ Summer course	5	2	1
Total years service in teaching or as a head	< 2yrs	3	-	-
	2-5yrs	4	-	2
	6-10yrs	6	8	3
	>10yrs	10	6	1
Experience on teaching through radio in the 2 nd cycle primary school	<2yrs	3	2	-
	2-5yrs	4	5	-
	6-10yrs	4	6	3
	>10yrs	12	1	3
Teaching load per week	<10periods	-	10	-
	10-15periods	-	4	-
	16-20periods	1	-	1
	21-25periods	15	-	4
	>25periods	7	-	1

Appendix II

Personal profile of education personnel at Bureau & Wereda

Respondents profile		Education Bureau Head	Media center heads	Program team leaders	Technical team leaders	Social studies program producers	Wereda education office heads	Wereda formal education desk heads
sex	M	1	2	2	2	2	5	5
	F	-	-	-	-	-	-	-
	T	1	2	2	2	2	5	5
Qualification	MA	1	-	-	-	-	1	-
	BA	-	2	1	-	1	4	2
	Diploma	-	-	1	-	1	-	3
	TTI	-	-	-	2	-	-	-
Total Service	0-10yrs	-	-	-	1	-	-	-
	11-20yrs	1	1	1	1	-	5	-
	>20yrs	-	1	1	-	2	-	5
Experience as	Teacher	1	2	2	-	2	5	5
	Head	1	2	2	2	-	5	5
	Producer	-	2	2	-	2	1*	-

* There is one office head that served as a teacher, head and producer.

Appendix III

ADDIS ABABA UNIVERICITY
SCHOOL OF GRADUATE STUDIES
COLLEGE OF EDUCATION

DEPARTMENT OF CURRICULAM AND INSTRUCTION

Questionnaire for students

The purpose of this questionnaire is to assess the extent of utilization of SSRP at SCPS in Amhara Region and identify impediments of utilization. It is believed that you are the right person who know the issue initial and who can give the relevant information. You are kindly therefore, requested genuine information for the fact that the success of this study rests upon your responses. Your suggestions and opinions will definitely be kept confidential and will be used only for research purpose.

No need of writing your name.

Thank you in advance
For your cooperation

Direction: This is not a test. There are no correct or incorrect answers. It is a questionnaire that will be used to study the utilization of SSRP. Please indicate with a tick mark (✓) what your opinion is with regard to each statement ONLY in one of the five alternatives. The alternatives are completely agree, agree, undecided, disagree and completely disagree.

I	Quality of the radio programs	Agree	Un-decided	Dis-agree
1* *	SSRP fit students ability and age level			
2* *	SSRP designed to encourage students' participation.			
3* *	The language used in SSRP is easy.			
4* *	Sound of social studies radio program presenters is clear.			
5	Social studies radio improves critical thinking since it is possible to ask questions and offer opinions after broadcasting			
6	SSRP support retention, because they easily clarify doubts in regular classes			
7* *	SSRP are presented in different formats/teaching methods eg drama, dialog and single voice talk.			
8	SSRP provide enough pause to respond for radio questions, to show maps or diagrams etc.			
9* *	SSRP provide new ideas in addition to the points found in the students' textbook			
10 *	SSRP use sound effects relevant to the lesson, e.g., animals & cars sound			
11	SSRP proceed from simple to complex			
12	I am better informed through radio than without radio			
13	Social studies radio lessons are presented in an interesting manner			
14	Social studies radio teaches better than classroom teacher			
II	Interest of the learner			
1	I would prefer to continue my social studies lessons with radio support even if I had the choice not to participate in them			
III	Technical Support			
1	Social studies radio broadcast is clear to hear the message			

IV	Commitment of teachers & school Directors	Agree	Un-decided	Disagree
1	Social studies teacher didn't waste time in searching the broadcast wave line			
2	Social studies teachers are ready to provide an opportunity to discuss about the radio lesson before and after the broadcast			
3*	Social studies teacher summarize the radio lesson after the broadcast.			
4*	Social studies teacher is committed to deliver radio programs once per week.			
5	Social studies teacher encourages us to respond for radio questions			
6*	Social studies teachers are committed to use additional teaching materials that support radio programs. e.g. ,map, glob, chart.			
7	Social studies teachers are committed to compensate radio broadcast whenever he missed it at a regular time broadcast			
8*	School directors are committed to supervise the regular provision of radio programs.			
9	School directors show readiness to safeguard radios from theft.			
V	Radio support services			
1*	Shortage of radio in our school hinders to listen SSRP			
2*	Shortage of dry cell or power supply in our school hinders to use radio programs.			
3	Reception quality of radios in my school is low.			

VII. Number of radio programs used. Please, write your answer in the space provided.

1. How many social studies radio program/s is/are provided in your class in first semester?

_____.

Remark:-

* Improved items

** Additional items

PPENDIX IV

Computation of reliability coefficient

Respondants	odd scores (X)	X ²	even scores(Y)	Y ²	XY
1	36	1296	30	900	1080
2	30	900	20	400	600
3	30	900	50	2500	1500
4	35	1225	41	1681	1435
5	20	400	27	729	540
6	30	900	28	784	840
7	20	400	18	324	360
8	20	400	25	625	500
9	20	400	26	676	520
10	15	225	50	2500	750
11	25	625	35	1225	875
12	25	625	20	400	500
13	27	729	20	400	540
14	20	400	23	529	460
15	18	324	20	400	360
16	33	1089	30	900	990
17	25	625	32	1024	800
18	37	1369	33	1089	1221
19	25	625	19	361	475
20	30	900	40	1600	1200
21	18	324	15	225	270
22	20	400	24	576	480
23	23	529	18	324	414
24	25	625	30	900	750
25	35	1225	26	676	910
26	33	1089	25	625	825
27	22	484	28	784	616
28	25	625	23	529	575
29	21	441	24	576	504
30	23	529	23	529	529
31	28	784	34	1156	952
32	28	784	30	900	840
33	18	324	33	1089	594
34	21	441	27	729	567
35	23	529	14	196	322
36	20	400	14	196	280
37	18	324	27	729	486
38	36	1296	39	1521	1404
39	36	1296	40	1600	1440
40	42	1764	45	2025	1890

Respondants	odd scores(X)	X ²	even scores(Y)	Y ²	XY
41	38	1444	40	1600	1520
42	21	441	24	576	504
43	23	529	28	784	644
44	25	625	37	1369	925
45	18	324	26	676	468
	23	529	14	196	322
47	27	729	30	900	810
48	20	400	16	256	320
49	31	961	30	900	930
50	40	1600	47	2209	1880
51	60	3600	70	4900	4200
52	40	1600	45	2025	1800
53	43	1849	49	2401	2107
54	25	625	20	400	500
55	30	900	40	1600	1200
56	29	841	30	900	870
57	40	1600	50	2500	2000
58	30	900	40	1600	1200
59	25	625	40	1600	1000
60	25	625	30	900	750
61	35	1225	47	2209	1645
62	30	900	38	1444	1140
63	40	1600	30	900	1200
Σ	1754	53042	1947	67777	58129

$$r_{xy} = \frac{N \sum XY - \sum X \sum Y}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}}$$

N= 63

$$\sum xy = 58129$$

$$\sum x = 1754, \quad \sum X^2 = 53042$$

$$\sum y = 1947, \quad \sum y^2 = 67777$$

$$r_{xy} = 0.69$$

$$Re = \frac{2r_{xy}}{1 + r_{xy}}$$

$$1 + r_{xy}$$

$$\underline{\underline{Re(Reliability)=0.82}}$$

Appendix V

Interview guide for social studies radio program producers and team leaders

I. Extent of radio using schools

1. Could you tell me the extent of schools that regularly use social studies radio broadcast?

II. Quality of the program

2. I would appreciate it if you tell me, in detail, the quality of SSRP in the SCPS in the Amhara region.

III. Technical Factors

3. Would you please tell me the conditions of radio utilization in relation to technical services?

IV. Radio support service

4. I would appreciate if you tell me in detail about radio support materials (radio, dry cell, teachers' guide, timetable etc)
5. I would like to here in detail, about training of radio users and you yourself
6. Could you please tell me the conditions of participation of teachers in radio content selection?

V. Commitment of educational personnel

7. I would appreciate it if you comment on the commitment of educational personnel at all levels in facilitating SSRP utilization.
8. I would like to here your interest towards your occupation.

VI. General questions on radio utilization

9. In your opinion what are the most important factors that affect SSRP utilization?

Interview Guide for Amhara Region Education Bureau Vice Head and Regional Media Center heads and Wereda education office heads and media supervisors

I. Extent of radio using schools

1. Could you tell me the extent of schools that regularly use social studies radio broadcast?

II Quality of the program

2. I would like to hear, in detail, about the quality of SSRP in SCPS in the region.
3. I would like to hear how you could recruit educational radio program producers.

III. Technical Factors

4. Could you please tell me about the maintenance of radio sets in schools?
5. I would appreciate it if you could tell me the wave band strength of educational radio broadcasts in the region.

IV. Commitment of educational personnel

6. Could you explain the commitment of media centers, wereda education office, school directors and teachers towards effective radio utilization?
7. Could you please tell me, whether you have included statements in your key activities to minimize problems of radio programs utilization or not? How is it stated?
8. I would appreciate it if you tell me your initiative to foster effective radio program utilization.

V. Radio support service

9. I would like to hear your opinion about the distribution of radio support materials (radio, radio teacher's guide, dry cell, timetable, pamphlet etc.) in the region.
10. I would appreciate it if you tell me the conditions of training to build the capacity of educational personnel at media centers and schools.

VI. General questions on radio utilization

11. Would you tell me other factors that impede effective radio utilization in the region?

Appendix VI

Interview Guide for Social studies Teachers

I. Extent of radio using schools

1. Would you please tell me whether you regularly use SSRP or not? If not what is your reason?

II Quality of the program

2. Radio is expected to be novel in its content. How do you assess this aspect of the current social studies radio lessons?
3. If you were to assess the radio format (teaching method) of SSRP, what would your comments and reasons be?
4. Would you please comment on the interest of the students towards SSRP?

III. Technical Factors

5. How do you describe the condition of radio maintenance services in your school?
6. I would appreciate it if you tell me whether the technical factors hinder you to utilize second cycle SSRP or not.

IV. Commitment of educational personnel

7. If you were to comment the commitment of the educational personnel at all levels in fostering effective radio utilization what will be your answers?
8. Are you willing to continue working with radio? Why?
9. I would appreciate it if you tell me in detail, on how do you perform before, during and after broadcast activities.

V. Radio support service

10. If you were to comment on the distribution and characteristics of radio sets in your school, what will be your answer?
11. Could you comment about the SCPS SSRP teachers' guide?
12. Could you please comment on the synchronization of radio broadcasts to your actual school conditions?

VI. General questions on radio utilization

13. In your opinion what factors contribute for the less effective utilization of SCPS SSRP

Interview Guide to Technique Team Leader

1. I would appreciate if you tell me about the conditions of the transmitters (quality, field strength etc) in the region.
2. Could you comment the radio maintenance service provided for the schools in the region?
3. I would like to hear something about the type of radio and its effectiveness for educational purpose.
4. What would you tell me about technical staff (training, number of staff etc.) in the region?
5. What would you tell me about your participation in procuring technical materials that will support radio education?
6. What are technical problems that hinder the utilization of educational radio programs in your region?
7. Could you suggest mechanism on how to minimize such technical problems?

Appendix VII

Interview Guide for School Directors

I. Extent of radio using schools

1. Would you please tell me whether you regularly use SSRP or not? If not what is your reason?

II Quality of the program

2. Radio is expected to improve teaching method. Comment the current second cycle SSRP in this respect.
3. Would you please comment on the interest of the students towards SSRP?
4. I would appreciate it if you tell me whether the quality of second cycle SSRP hinders utilization or not.

III. Technical Factors

5. How do you describe the condition of radio maintenance services in your school?
6. I would appreciate it if you tell me whether the technical factors hinder you to utilize second cycle SSRP or not.

V. Radio support service

7. If you were to comment on the distribution and characteristics of radio sets in your school, what will be your answer?
8. Could you comment about the SCPS SSRP teachers' guide?
9. Could you please comment on the synchronization of radio broadcasts to your actual school conditions?

IV. Commitment of educational personnel

10. If you were to comment the commitment of the educational personnel at all levels in fostering effective radio utilization what will be your answers?
11. Are you willing to continue working with radio? Why?
12. How do you follow whether missed radio broadcasts are compensated or not?

VI. General questions on radio utilization

13. In your opinion what factors contribute for the less effective utilization of SCPS SSRP

Appendix VIII

Interview Guide for School Media Teachers

I. Extent of radio using schools

1. Would you please tell me whether you regularly use SSRP or not? If not what is your reason?

II Quality of the program

2. Radio is expected to improve teaching method. Comment the current second cycle SSRP in this respect.
3. Would you please comment on the interest of the students towards SSRP?
4. I would appreciate it if you tell me whether the quality of second cycle SSRP impedes utilization or not.

III. Technical Factors

5. How do you describe the condition of radio maintenance services in your school?
6. I would appreciate it if you tell me whether the technical factors hinder you to utilize second cycle SSRP or not.

IV. Commitment of educational personnel

7. Are you willing to continue working with radio? Why?
8. I would like to here in detail on how you perform your rolls as a media coordinator

V. Radio support service

9. If you were to comment on the distribution and characteristics of radio sets in your school, what will be your answer?
10. Could you comment about the SCPS SSRP teachers' guide?
11. Are you trained on how to utilize radio programs at the college level and/or at work place? Comment it.
12. Could you please comment on the synchronization of radio broadcasts to your actual school conditions?

VI. General questions on radio utilization

13. In your opinion what factors contribute for the less effective utilization of SCPS SSRP

Appendix IX

Classroom Observation Check list

Name of the school Zone Date of
 broadcast..... Grade Topic Program
 No..... Yr

	Yes	No
I. Activities before broadcast		
1. Puts radio broadcasting sign on the door	_____	_____
2. Arranges seats	_____	_____
3. Lights the room	_____	_____
4. Airs the room	_____	_____
5. Puts radio in the right position	_____	_____
6. uses additional teaching material	_____	_____
7. Writes topic of the lesson on the blackboard	_____	_____
8. Plans the lesson	_____	_____
9. Asks questions about the lesson	_____	_____
10. Reminds to listen during broadcast	_____	_____
11. Revises previous lessons	_____	_____
II. Activities during broadcast		
1. Turns on radio on time	_____	_____
2. Monitors attentive listening	_____	_____
3. Encourages to respond on time	_____	_____
4. Speaks at the right time	_____	_____
5. Doesn't move to the back of a class	_____	_____
III. Activities after broadcast		
1. Clarifies main points	_____	_____
2. Encourages students to ask questions	_____	_____
3. Encourages/leads discussions	_____	_____
4. Assigns tasks	_____	_____
5. Concludes radio lesson	_____	_____

DECLARATION

I, the undersigned, declare that this thesis is my original work and that all sources of materials used for this thesis have been duly acknowledged.

Name: ABERE MEKURIA

Place: DEPARTMENT OF CURRICULUM AND INSTRUCTION, COLLEGE OF
EDUCATION

Signature: Abere Mekuria 

Date of submission: JUNE 10, 2004.

This thesis has been submitted for the examination with my approval as a University advisor.

TESHOME NEKATIBEB (PH.D)