



## Teachers' Utilization of Educational Radio Programs in Public Primary Schools

Mohammed Abdo Hassen \*<sup>1</sup> & Dawit Negassa Golga <sup>2</sup>

<sup>1</sup>Department of Adult Education and Community Development, Haramaya University, Ethiopia

<sup>2</sup>Department of Special Needs and Inclusive Education, Haramaya University, Ethiopia

Abstract	Article Information
<p><i>The research project was conducted to examine the teachers' utilization of educational radio programs in public primary schools. A qualitative research approach with an intrinsic case study design was employed. Nine study participants, including two principals, six teachers, and one Educational Media Agency head, were selected as sources of data based on their rich experiences in the utilization of educational radio. The data was collected through interviews, observation, and document analysis. The study revealed that primary school teachers and principals had high awareness about the importance of educational radio programs, but they couldn't properly utilize them for classroom teaching and learning purposes. The instructions given by the radio teachers to students and classroom teachers were clear. However, the classroom teachers faced difficulty in implementing the radio instructions because of the unavailability of enough radio sets, shortage or absence of the teacher's guide, mismatch between the radio airtime and the timetable in the school, lack of collaboration, weak monitoring and follow-up, and electric power interruption. To alleviate the problem, concerned stakeholders, including the Educational Media Agency, Zonal Education Office, Woreda Educational Office, and the primary schools, should give due attention and support to facilitate proper implementation of the educational radio program.</i></p>	<p><b>Article History:</b>  Received: 23-11-2024  Revised: 20-10-2025  Accepted: 28-11-2025</p>
	<p><b>Keywords:</b>  <i>Intrinsic Case Study,  Educational  Broadcasting,  Educational Radio,  Primary School.</i></p>
	<p>*Corresponding  Author:  Mohammed Abdo  Hassen</p>
	<p>E-mail:  <a href="mailto:mameabdii22@gmail.com">mameabdii22@gmail.com</a></p>

Copyright @ 2025 STAR Journal, Wollega University. All Rights Reserved.

## INTRODUCTION

Educational technology is a burgeoning topic of study that employs technology to address educational difficulties both in the classroom and in distance learning settings. It is essential in supporting classroom teachers and students' development, as well as improving access to and the quality of education across all grade levels. Radio is one of the most frequently used technologies for classroom learning worldwide. Although radio technology was invented in the late 1800s, it did not become widely used in education until the early 1900s. In 1924, the British

Broadcasting Corporation (BBC) began broadcasting educational radio transmissions in North America and Western Europe.

Radio is a communication technique that employs electromagnetic waves to send signals from one location (studios or wherever the programs are produced) to another location equipped with radios capable of playing these programs. Radio enables global, interactive, and dynamic communications in both traditional and remote education systems. Since the radio program is affordable for most families worldwide, no other

mass medium has achieved such levels of audience saturation and acceptability globally. It involves an accessible technology that transmits a carefully planned audio-learning experience, and its program origination and transmission are done for free, although its invention took nearly sixty years. Radio has been used in various formats (role play, drama, sing-song, conversation, brainstorming, etc.) for teaching and learning purposes based on the nature of the subject (Butcher, 2003).

Educational radio is one of the most widely used instructional media in both developed and developing countries. Interactive radio programs allow for live and taped regular and distance programs that support learner-centered education and training. Radio education can effectively reach a large number of children who might otherwise be overlooked. According to the South African Institute for Distance Education, (2004), radio is the primary medium accessible to most rural people and serves as an effective medium for offering topical programming and reaching a large number of students quickly. The educational radio program is content developed and transmitted through radio for the primary school teaching-learning process.

Ethiopia has a long history of using media for educational purposes, both formal and informal. Educational radio programs in Ethiopia began broadcasting in the 1960s, and the country has extensive experience using radio to promote basic education over the last three decades. Teshome (1998) noted that, unlike many developing countries, Ethiopia adopted and institutionalized radio as a medium for promoting elementary education nearly three decades ago. The Ethiopian government introduced an educational radio program to support the classroom teaching-learning process. Since 1950, educational radio stations in Ethiopia have worked to expand the curriculum and assist classroom teachers.

Educational radio has been particularly beneficial in Ethiopia for several reasons. First, the country's vast and mountainous terrain makes travel difficult. Second, it has supported classes with inexperienced teachers, especially evident in the second cycle of primary schools. Third, it has

*Sci. Technol. Arts Res. J., Oct. –Dec, 2025, 14(4), 29-43*  
broadened children's experiences, and fourth, the programs provide general enrichment in various ways (Tilson & Bekele, 2000). Interactive radio instruction has been utilized in Ethiopian educational curricula (especially at the primary level) for about a decade to facilitate children's learning and teacher professional development.

The utilization of educational radio has played a crucial role in enriching curricula and addressing the shortage of trained teachers. Utilization refers to the actual implementation of educational radio lessons at the receiving end (Percival, 1998). Interactive radio instruction has emerged as a viable solution for enhancing educational quality in primary school classrooms in developing countries worldwide. Interactive educational radio is defined as a concept that brings together instructors, learners, resources, and experts, even if they are not in the same place or time.

Various experts have researched the deployment of educational radio broadcasts globally. Odera's (2011) study on learning English using radio in Kenyan primary schools found that most teachers did not listen to school radio broadcasts. Ayalew (2016) examined the effects of interactive radio English instruction on the listening comprehension achievement of grade three students in Bahir Dar, indicating that pupils in the experimental group showed an increase in their mean scores following the intervention. These studies suggest that the implementation of educational radio programs is often improper and inefficient due to several constraints.

### Statement of the Problem

In Ethiopia, ICT, including educational radio, is part of the quality of education, and first-cycle primary school students show high interest and motivation when teachers use radio for classroom instruction (MoE, 2009). From my previous experience, the radio program is transmitted from the Haramaya Educational Media Agency; however, the nearby Haramaya town has not properly utilized the transmission of the radio program for classroom teaching and learning. Supporting this, the Educational Media Agency of

Ethiopia stated that primary school teachers did not effectively utilize educational radio programs in their classrooms due to issues such as mishandling of radios and programs, mismatched radio schedules with teachers' schedules, and the introduction of multiple languages of instruction.

In the Federal Democratic Republic of Ethiopia, primary education is conducted in the mother tongue. With over 80 nations and nationalities, each possessing its own language, culture, ethnicity, tradition, and beliefs, preparing educational radio programs in all languages presents a significant challenge for the federal and regional governments. Although Ethiopia has more than 80 languages, only around 15-20 are currently used as media of instruction. Most Ethiopian regions have only one or two languages of teaching, while others have more. Consequently, educational radio programming in each subject must be created in all languages for each grade level. The Ethiopian educational media agency produces 15-minute radio programs for English subjects (grades 1-8), and regions also create 15-minute radio programs in local languages for subjects such as natural sciences, social sciences, and local languages. Educational radio programs improve access to and the quality of primary education by producing regional-level radio programs in local languages for all primary school grades across most subjects (MoE, 2008).

While there have been few studies conducted in Ethiopia on educational radio programs (Ayalew, 2016; Tilson & Bekele, 2000; Mulgeta, 2007), these studies were not comprehensive and specifically focused on the impact of English subject radio broadcasting programs. Furthermore, no recent research has been conducted on teachers' use of educational radio programs in primary schools, particularly in the study area.

### Research Questions

The gap in the literature motivated the researchers to conduct the current study, which aims to address the following research questions.

1. How do teachers explain the importance of

*Sci. Technol. Arts Res. J., Oct. –Dec, 2025, 14(4), 29-43*  
utilizing educational radio programs?

2. How do teachers utilize educational radio programs in the classrooms?
3. What are the factors that affect teachers' utilization of educational radio programs?

### THEORETICAL FRAMEWORK

This study was guided by Kolb's Experiential Learning Theory (KELT), which comprises four stages: concrete experience, reflection, conceptualization, and experimentation. The idea acknowledges the role of technology in experiential learning. It considers the use of technology to facilitate and assist experiential learning. Experiential learning theorists place experience at the heart of the learning process and seek to understand how experiences, whether first- or secondhand, motivate and encourage learning. Lai et al. (2007) used the KELT framework to study the role of technology in experiential learning. A learning activity flow (radio script) and a radio technology system were created to aid students in experiential learning. The study's findings revealed that employing technology while going through the four-stage process helped students increase their knowledge by allowing them to act and reflect on their decisions.

### MATERIALS AND METHODS

#### Research Design

An intrinsic case study research design was used because it is appropriate when the study is conducted on a single case or a bounded system (Creswell, 2009). A system is bounded when there is a person, group, program, or situation that can be investigated to gain an understanding of experiences or views of the members of the system (Creswell, 2013). In this study, the case refers to the educational radio program in public primary schools.

#### Description of the Study Area

The investigation was carried out in Haramaya, a village 560 kilometers from Addis Ababa, Ethiopia's capital. It is situated in the Haro Maya

district, East Hararge Zone, Oromia Region, Ethiopia. Haramaya Town has three public primary schools: Batie, Gada, and Almaz Bom.

### Sources of Data

The primary source of data was primary school teachers, principals, and the head of the Haramaya educational media agency. Secondary sources of data were primary schools and Haramaya educational media reports.

### Sample Size and Sampling Techniques

Two primary schools, namely, Gada and Almaz Bom, were selected by using a purposive sampling technique because students and teachers of these schools have participated in the preparation of educational radio programs as acting models. Six primary school teachers, two principals, and the head of Haramaya Educational Media Agency were selected by using the purposive sampling technique because they have rich experience in the utilization of educational radio programs. Purposeful sampling is a technique extensively used in qualitative research to identify and select information-rich examples to make the most use of limited resources (Patton, 2002). This is identifying and selecting individuals or groups of individuals who are particularly skilled or experienced with a topic of interest (Creswell & Plano Clark, 2011). In a qualitative investigation, the sample size was determined using a saturation technique.

### Instruments of data collection

In qualitative research, there is no single, superior method for gathering data; rather, a variety of methods are encouraged to be used. As a result, the necessary data for this study was gathered through interviews, observations, and document analysis. The case study involved in-depth data collection from multiple sources (Creswell, 2013).

### Interview

Interviewing is a major source of data in qualitative research for exploring the phenomena under study. Therefore, the interview for this study was conducted with primary school teachers, principals,

*Sci. Technol. Arts Res. J., Oct. –Dec, 2025, 14(4), 29-43*  
and the head of Haramaya educational media to examine the utilization of educational radio programs. The interview was conducted face-to-face with the individual respondents. Face-to-face interviews are useful since they allow for the collection of more data (Opdenakker, 2006). Thus, an interview was conducted with a total of 9 participants (six teachers, two principals, and the head of the Haramaya Educational Media Agency). The interviews were done in Afan Oromo, the official language of the Oromia regional state, for ease of communication, and then transcribed into English with the help of an English language expert. Data from each interview were recorded by using a sound recorder and manually after gaining verbal consent from the interviewees. The duration of each interview session lasted between 30 and 45 minutes. The individual interview sessions were guided by the interview guide designed in advance.

### Observation

Observations of teaching and learning in a radio broadcasting class were conducted in the classrooms of teachers who participated in the interview process. In addition to consulting the teacher's guide and radio schedule, observations were conducted inside the classroom during the educational radio broadcast period. A classroom observation checklist was created, and data were collected from teachers before, during, and following radio broadcast activities on subjects with a transmission program from the educational radio station. Thus, observation sessions were conducted for three periods for each subject. Observation is an essential component of qualitative research in the social sciences, especially education (Rossman & Rallis, 1998). Observation notes and themes were utilized in conjunction with interviews to corroborate themes and ensure validity across data sources (Waite, 2014).

### Document Analysis

Documents are important data sources for qualitative research. Documents were employed in this study as both primary data collection devices



and as supplementary evidence to the interview responses and classroom observation notes. In this study documents—educational media reports, radio teachers' guides, and timetables—were analyzed.

### **Trustworthiness**

Traditionally, the criteria for measuring a study's rigor have included internal and external validity, dependability, and objectivity. Tracy (2010) proposed that "trustworthiness" is an appropriate term for assessing the quality of qualitative investigations. Credibility, which is consistent with internal validity (Creswell, 2013), was established using a variety of data-gathering approaches, including individual in-depth interviews, observations, and document analysis. Peer reviews were also undertaken to increase the study's credibility, allowing other researchers to assess the preliminary data and findings and provide feedback. As a result, this study used a variety of interconnected methodologies, each with its own set of advantages and disadvantages.

Dependability relates to the reliability of findings in quantitative research (Creswell, 2013). In this study, dependability was ensured by formulating clear questions, triangulating the data, and addressing subjectivity during data collection, as well as conducting peer reviews and transparently reporting the study's processes and findings. Transferability of qualitative results is considered analogous to the generalization of findings in quantitative research (Creswell, 2013). While the study's location may resemble other settings in Ethiopia, the intention was not to generalize the findings nationwide. However, the educational radio programs utilized in primary schools in the East and West Hararghe zones are similar, as they receive broadcasts from the Haramaya Educational Media Agency. Therefore, the primary schools in these zones that directly receive the educational radio programs may apply the findings of this study to their specific contexts.

### **Ethical Issues**

Regarding ethical considerations, all study participants were requested to give their consent to

participate in the investigation. Before each interview, the interviewer introduced himself and discussed the study's goal and anticipated advantages, the respondents' classification, the precautions used to preserve data confidentiality and anonymity, and the session's estimated duration. After each session, the interviewees were congratulated for their cooperation and active involvement.

### **Data Analysis**

The study used content analysis to assess the collected data in a series of phases. The recorded data were first transcribed and translated into English, followed by numerous readings to get a thorough comprehension of the data and provide ideas for further investigation. The texts were then split into meaningful pieces related to the study questions and organized for the next analytical phase. This phase included open coding and the creation of categories and subcategories. The purpose of these categories was to characterize and understand the use of educational radio broadcasts in elementary schools. During the reporting stage of the study, the findings for each aim were outlined based on the content that demonstrated the phenomenon under inquiry.

## **RESULTS AND DISCUSSIONS**

### **Results**

The study was conducted on the utilization of educational radio programs in primary schools and its associated factors. The findings are presented in three overarching themes: i) the importance of utilization of educational radio programs in primary school. ii) Utilization of educational radio programs in primary school and iii) the factors that affect the proper utilization of educational radio programs in primary schools.

Educational radio is a popular medium that contributes significantly to improving the quality and relevance of education in both formal and informal educational institutions. On the importance of educational radio programs and his

teaching experiences, one of the first schoolteachers stated:

I have 14 years of experience in teaching Afan Oromo and Gada subjects at this primary school and used radio programs for my classroom teaching-learning process throughout my teaching experiences. The educational radio program has a lot of importance. Since I am a language teacher, I am working on four skill areas: reading, writing, speaking, and listening ability. So, educational radio programs are essential to develop the listening skills of students. Educational radio programs support and strengthen the subject content that teachers teach in the classroom.

Teachers drawn from the first school had rich teaching experience in Afan Oromo language subjects, and educational radio programs have a great role in improving the listening skills of the students. Another environmental science teacher from the same school stated that the educational radio program is the base for classroom teachers in terms of presenting facts that the classroom teacher may fail to demonstrate and explain in the class. Radio is an aid to the classroom teacher. Another teacher from the first school stated:

I have 16 years' experience in teaching environmental science subjects in this primary school and used radio programs for my classroom teaching-learning process throughout my teaching experiences. The educational radio program became a frame of reference for the schoolteachers because the educational radio program transmits the main/core subject contents. It uses an interactive method of transmitting content, and the way in which radio students study together becomes a good example for classroom students. The educational radio program assists classroom teachers and students with the teaching and learning process both inside and outside of school. It increases pupils' interest and drive in their studies. Radio brings the world into the classroom through description, narration, dramatization, and other techniques that use authentic voices and natural noises. Radio can also transport listeners throughout the world and back in time. In relation to this, one of the school principals stated:

The educational radio program has many functions; it increases the interest and motivation of the students for their learning within the school and outside the school in their homes. The students also get motivated to study and read at home. Even the educational radio program helps the students learn outside the classroom. The educational radio program covers a wide geographical area/long distance by low-cost effectiveness.

Radio programs guide the teacher or facilitator and the students through activities, games, and exercises that teach specific subject matter while also providing the teacher with examples for organizing efficient learning activities. Radio is one sort of educational technology; employing radio programs improves the quality of teaching and learning in the classroom. One of the teachers from the second school stated:

Educational radio programs teach many topics within a short period of time. Since radio is one type of technology, students are highly motivated when their teacher uses radio technology in the classroom. The way the radio delivers the subject content provides real experiences for the teachers and students. It helps classroom teachers understand how they use teaching materials and helps them plan their time with the textbook. It encourages, and perhaps requires, listeners to concentrate their attention and to use their imaginations.

The educational radio program revitalizes teachers' knowledge, offers more content than what is available in textbooks, and encompasses various subject areas. This allows teachers to enhance their content knowledge in specific subjects. Educational radio programs facilitate learning and increase the level of realism, which is often unattainable for traditional classroom teachers.

The participants had concerns about the utilization of educational radio programs in the classroom in relation to the radio schedule per week, radio transmission time, instruction given by radio teachers, and the rank of utilization. Regarding this, one of the teachers from the first primary school stated:

I have three periods per week, and I support the lesson with the educational radio program once for each class per week. The educational radio script was prepared for 15 minutes, but in our school one period is 40 minutes. There is no fixed time within the period for radio transmission; sometimes the radio transmission starts at the beginning and other times at the middle and the end. In this case, I tried to adjust my class to the direct radio transmission. The instructions given by the radio teachers to the classroom teachers and students were very clear. But, sometimes, the radio teachers instruct the classroom teachers to show the material and diagram that is not available at hand. In such times the classroom teachers face difficulty. I rate the effectiveness of the utilization of the educational radio program in the school as moderate because of different reasons.

Most of the teachers in the selected primary schools utilize educational radio programs to support classroom teaching and learning. The radio program was transmitted for 15 minutes, but one period for the classroom teacher was 40 minutes. The topic matter, grade level, class size, and lesson time all have an impact on how radio is used in the classroom. If the school doesn't have the radio schedule, there is no way that the classroom teachers know the exact transmission of the radio program. At the beginning of the New Year, the educational radio program started before the actual classroom teaching. Most teachers in the selected primary school didn't have teachers' guides for the radio program at hand. Regarding this, one of the teachers from the second primary school stated:

I supported my subject twice a week by educational radio program. Radio program support students learning, covers the contents missed by the classroom teachers, and show direction for the classroom teachers. The radio program starts at the beginning of "Meskerem" (September) but we start the classroom teaching in the second month "Tikmit" (October). Because of this reason, the radio program and our classroom teaching was not consistent/matched. The radio program starts one, two, or three weeks before the commencement of our actual classroom teaching. If you have teacher's

*Sci. Technol. Arts Res. J., Oct. –Dec, 2025, 14(4), 29-43*  
guide for radio lesson at hand, the instruction transmitted from the radio teachers is specific and clear. But if you don't have teacher's guide for the radio program, it's difficult to implement instruction from radio teachers. Utilization of educational radio to my classroom was neither good nor bad. I put it in the range of moderate.

In the selected primary schools during the COVID-19 outbreak, the formal educational radio program was interrupted, but this time the primary school teachers in the study area started utilizing the educational radio program for their classroom teaching. Regarding this, the principal of the first primary school stated:

Educational radio programs have a great role in facilitating the teaching-learning process in our school. We facilitated awareness-raising programs on educational radio programs for our teachers and students so that they could use this program inside and outside the classroom. Now we are utilizing the educational radio program in our school, but during the COVID-19 outbreak, since the school was closed, we stopped using the formal educational radio program. Most of the time, we didn't get the radio schedule on time. We get the radio schedule after we prepare the school timetable and start our schoolwork. This puts another burden on our school activities, and we reject the first timetable and prepare the second, which matches with the educational radio broadcasting schedule. Most of the teachers in our school utilize radio programs for their teaching-learning process properly, but some teachers, because of diverse reasons, didn't properly utilize radio programs.

The principal of the first primary school raised his concern about the mismatch between the radio program and the school timetable. Concerning the radio program schedule and their primary school schedule, the second primary school principal also stated:

In our school, we continuously utilize educational radio programs for the teaching-learning process. All of the teachers in our school utilize educational radio programs for their classroom. We have a radio and a functional electric line in all classrooms. So, this makes it easy

to use educational radio programs in every classroom. During the period of the outbreak of COVID-19, since the school was closed, the formal educational radio program was stopped. In this year, we obtained the radio schedule from the stakeholders, and to match the school timetable with the radio schedule, we use experienced teachers. Now our school timetable is written in two colors (black and red); the red one indicates the period for the educational radio program. Any teacher can easily differentiate the radio program schedule from the normal class schedule.

Haramaya Educational Media is one of the educational radio programs that has been transmitting radio programs for primary schools and adult learners in East Oromia. The director of the Haramaya Educational Radio Program shared the general overview of the Haramaya Educational Radio Program and his experiences in relation to the program as follows:

I have served for a total of 15 years in the Haramaya Educational Media Agency as a program producer for 8 years, as a program coordinator for 6 years, and as the head of the Haramaya Educational Media Agency for one year. Utilization of the educational radio program from our media center has two modalities. The first modality, direct transmission, has two transmitters: 10kw which transmits the program in 1287 MB and 1kw which transmits the program in 657 MB. Both transmitters transmit the radio program regularly for the primary schools of the East and West Hararge Zones. The second alternative is using a removable disc. When the primary school doesn't get the chance to use direct transmission because of different reasons (geographical location, distance), a removable disc can be used. Except for grade 7 and grade 8 English, which are not prepared at the national level, all the remaining subjects are transmitted to primary schools.

Regarding how the Haramaya educational media provided professional support to primary school teachers, the study's participants reported that they did not receive appropriate professional help from the necessary authorities. Regarding professional support for primary schools and the

*Sci. Technol. Arts Res. J., Oct. –Dec, 2025, 14(4), 29-43*  
mechanism they used to evaluate the utilization of the radio program, the general director of the radio program stated:

We provide professional and material support (radio, memory, antenna, and teachers' guide) for primary school teachers. We conduct supervision twice a year to provide professional advice to the primary school teachers on how to prepare themselves to utilize the radio program before, during, and after the radio lesson. During supervision, we check whether every teacher has got a teacher guide for the radio program and prepares the students for the radio lesson by writing the topic of the lesson on the blackboard before the radio lesson. We provide support for the primary schools located at a distance that do not get quality direct transmission on how to use an antenna to get quality transmission.

We evaluate the utilization of educational radio programs in primary schools by conducting immediate supervision. We evaluate whether the radio schedule and primary school schedule match. We observe the utilization of radio programs in the classroom. There is a variation on utilization of educational radio programs from school to school, teacher to teacher, and place to place.

This suggests that for the educational radio program to have a meaningful impact on supporting classroom learning, ongoing monitoring and continuous evaluation must be carried out. In fact, the absence of constant monitoring and evaluation significantly hinders the normal and effective use of the broadcast lessons (Mulgeta, 2007).

During the observation, it was observed that the status of the two selected primary schools was similar. The classroom teachers didn't use illustrative material that guided the radio lesson. They didn't have a radio teacher's guide and a radio-specific time schedule; they opened the radio and waited until the radio program started. Students' seating arrangement in the classroom was in rows, not in the semi-circular seating arrangement that is recommended for listening to radio lessons. There were more than 65 students in one classroom. In addition, the timetable of the Educational Media Agency shows that the educational radio program



should be arranged by taking into account a full-day educational program (a similar program in both shifts).

### Question number three

What are the factors that affect teachers' utilization of educational radio in the classroom?

The participants, while reflecting on the factors affecting the utilization of educational radio programs in the selected primary schools, addressed a number of issues. Most of the teachers in the primary schools had similar ideas on the training provided on the utilization of educational radio programs. Utilization requires a thoughtfully designed framework that includes reception points, training for teachers, and other development agents. In relation to this, one of the respondent teachers in the first primary school stated:

The training of teachers on radio lesson utilization is one of the tasks of the Educational Media Agency and the Woreda Education Office. Utilization of educational radio programs without having the required skills is difficult. Therefore, I didn't get a piece of training concerning educational radio programs, and many teachers utilize educational radio programs traditionally. Thus, it is not hard to imagine how far the lack of training of teachers in the area can negatively affect the proper utilization of the radio program.

Teacher guides are critical for the effective implementation of educational radio programs in primary schools; nevertheless, primary school instructors are now encountering obstacles due to a shortage of adequate teachers' guides. All of the teacher participants and principals voiced regret, as the absence of radio teachers' guides had a substantial impact on their plans, activities, and motivation. Regarding this, one of the teachers from the second primary school stated:

Educational radio teachers' guides are the key inputs in the utilization of radio lessons. In our school, there is no guideline, policy, or teacher's guide for proper utilization of radio programs in primary schools. Therefore, the only ones responsible for this problem might be the

*Sci. Technol. Arts Res. J., Oct. –Dec, 2025, 14(4), 29-43*  
Educational Media Agency and the Woreda Education Office.

The teachers were asked about the support they got from any concerned body on the utilization of the educational radio program. Most teachers indicated that they didn't get support on the educational radio program from an external body but that they obtained support from school administration on the utilization of the educational radio program. Other teachers indicated that they didn't get any support, but they utilized educational radio programs by themselves. One school principal said, "We have no discussion on the utilization of educational radio programs with our school teachers because we have no awareness about radio programs," while the other said, "We had fruitful discussions with our school teachers on the utilization of educational radio programs." This shows that the commitment of the school administration is essential for proper utilization of the educational radio program.

The primary school timetable is another factor that influences the effectiveness of utilizing the educational radio program. In the selected primary schools, a significant issue is the mismatch between the timetables of the educational media and those of the receiving primary schools. Regarding this, the respondent teacher from the second primary school stated:

The utilization of educational radio programs in primary school was affected by the overlapping of the primary school and educational radio program time schedules; the number of sections versus the number of radio sets in the school didn't match. Teachers have three or more classes at the same grade level, but the radio program transmits one subject within a single period. Teachers face challenges to handle all the sections. The attention given to educational radio programs from concerned bodies is low, the follow-up of educational radio programs is weak, there is a lack of clear guidelines and radio teachers' guides, and the availability of old and a few numbers of radio sets in the schools are some factors that affect the utilization of educational radio programs.

The first primary school principals stated:

The number of students, the number of sections, and the number of radios are some factors that affect the utilization of educational radio programs. For example, in our school, there are five sections of grade one, A-E, and one teacher teaches the whole section Afan Oromo subject in different periods. But the radio program transmits the lesson for all sections at the same time. Since we don't have a hall in our school, it's difficult to properly utilize educational radio programs for all sections in the school.

Regarding this issue, the director of the Haramaya Educational Media Agency stated,

The number of radios in the schools doesn't match with the number of sections (one school has 18-22 sections), there are problems of electricity (there are problems with regard to the source of power to the radio sets), there is a lack of proper follow-up from top to bottom, and there is a lack of commitment of school administration and school teachers.

Participants in the survey reported a mismatch between the number of students, sections, teachers, and radios. This condition makes it difficult to use the educational radio program in the classroom. Furthermore, the use of the educational radio program was hampered by a variety of causes, including electrical problems (issues with the power supply for the radio sets), insufficient follow-up from the top down, and a lack of commitment from school administrations and teachers. During observation, it was noticed that the number of radios and the number of sections didn't match. The first primary school had three functional radios, whereas the second primary school had four functional radios. During the radio lesson, most students were actively listening and participating in the radio lesson, whereas few students were taking/copying notes written by classroom teachers on the blackboard. In line with this finding, the study conducted by [Mulgeta \(2007\)](#) showed that during radio lessons some students were sleeping, and others were copying notes or doing assignments for other subjects, laughing, and talking to each other in low voices.

The teacher's utilization of educational radio programs in public primary schools was affected by different factors. Setting a strategy to improve the problems observed in the utilization of the educational radio program is very important. Regarding this, the director of Haramaya Educational Media Agency stated:

We evaluated the factors affecting educational radio programs and prioritized the problems and set direction with the Oromia Education Bureau and other stakeholders: First of all, primary schools should buy more than two radios from their budget; second, the primary school that doesn't get direct transmission will use a removable disk; third, an antenna will be set in the school cluster center of primary schools; fourth, utilization of the educational radio program will be considered as one evaluation criterion for primary schools.

## **DISCUSSIONS**

The findings of the study indicated that utilizing educational radio programs is very important to improve students' and teachers' listening skills and to support the subject content. They also serve as a frame of reference for classroom teachers, since radio programs clearly articulate why, what, and how to teach the students in the classroom and thereby improve students' motivation and interest. [Eyyam and Menevis \(2010\)](#) found that teachers believe instructional radio has a good impact on their classroom teaching-learning experience. Similarly, [Annaith \(2012\)](#) observed that radio can be used to support developmental goals and can be broadcast to a large audience to improve good-quality education in literacy, problem-solving, skill acquisition, values, attitudes, and other areas of knowledge. [Nekatibeb \(2004\)](#) also indicated that in Ethiopia, an educational radio program aims to teach English at all levels, including vocabulary, fundamental grammar, and pronunciation. In teaching-learning English, the radio programs try to integrate the four basic English skills: listening, speaking, reading, and writing.

The educational radio program uses different formats: peer discussion, role play, mini-class, drama, reports, singing songs, doing individual and

group work, answering questions, etc. to present the lessons in the classroom. From this the student learned how they communicate with each other. The educational radio program covers a wide geographical area/long distance by low-cost effectiveness and increases educational quality and access. The educational uses of radio can be categorized into three main areas: enhancing educational quality and relevance, reducing educational costs, and improving access to education, especially in rural regions. Radio programs can provide high-quality educational content to a diverse audience across wide geographical areas at a low cost (Couch, 1997).

The primary school teachers and principal are highly aware of the importance of educational radio programs in the study area; however, they did not utilize them effectively in the classroom teaching and learning process. Supporting this, research shows that most teachers did not use the interactive educational radio programs as intended (Sanusi et al., 2021).

The radio program's content and exercises are based on national and regional curricula, and it employs a structured learning approach. According to Sambo et al. (2014), educational radio programs bring to reality the experiences found in the pages of a book or a text, which grab the students' interests and assist in training the minds and brains for a better society. Burns (2006) also stated that the radio teacher presents content and audibly advises teachers to use more engaged educational practices in the classroom. The study finding indicated that the radio program prepared depends on the nature of the subject. The radio script was prepared for 15 minutes, but one period for classroom teachers is 40 minutes. The responsibility was given to the classroom teachers to match the radio lesson and the classroom time depending on an activity in the radio teachers guide (before, during, and after the radio lesson). It is therefore vitally necessary to correct classroom clocks to the second; otherwise, teachers may be tuning in before or after the commencement of a broadcast (Kinder, 1959).

The instructions given from radio teachers to students and classroom teachers were clear, but

they faced difficulties in implementing the instructions because many teachers didn't have a radio teacher's guide to properly utilize the educational radio program. The primary school didn't get the radio schedule on time; they got the radio schedule after they developed the school timetable. This shows there is no clear network and smooth communication between the stakeholders (educational media, the zone educational office, the woreda educational office, and primary schools). This highly affects the utilization of educational radio programs in the primary schools. Dorcah, et al. (2014) confirm this by stating that a shortage of lesson support resources and a failure to scheme by subject teachers were important issues faced by teachers during the radio program's introduction.

The utilization of educational radio program varies from school to school, from teacher to teacher depending on school principals and teachers' motivation and commitment to their professions. In the study area the primary school teachers utilize educational radio program for their classroom teaching-learning process depend on the school condition: number of radios, power of electricity, number of students in the class, teachers load, quality of transmission. Participants of the study ranked the utilization of educational radio program for classroom as moderately. All the primary school principals and teachers indicated that they didn't get training on the utilization of educational radio program from any concerned body. The goal of training instructors in the use of educational radio broadcasts is to acquire the professional abilities and service procedures needed to effectively fulfill their tasks (Leedham, 1972). One of the difficulties limiting the efficient use of educational radio courses is a lack of training among classroom teachers (Mulgeta, 2007).

The primary school teachers and principal asked about guideline, policy, manual and radio teachers guide on the utilization of educational radio program they indicated that there is no guideline, policy and even if there were no radio teachers guide for proper utilization of radio program in primary schools. Actually, the lack of radio teachers' guides is a critical issue that has a

significant impact on teachers' ability to use radio programs effectively (Mulgeta, 2007). As the head of Haramaya Educational Media Agency indicated, all primary school teachers have educational radio teacher's guide that help the teachers for properly utilizing the program but regarding the educational radio guideline, policy and manuals, we used the old, there is no current guideline and policy on utilization of educational radio programs. There are no contents that address the issues of the educational radio program on Ethiopian Educational Development Roadmap 2018-30 (MoE, 2018). However, the updated guideline, policy and radio teachers guide is very essential for proper teachers' utilization of educational radio program in primary schools. Various factors determine how educational radio is used in the classroom.

According to the interview, the use of educational radio programs was affected by the number of students in the classroom, numbers of sections, numbers of radio versus direct transmission of radio program, mismatch of school and radio schedule, lack of follow up, the problems of electric power and lack of commitment of school principals and teachers. The absence of evaluation and follow-up are two major elements influencing the improvement and effective use of educational radio talks (Mulgeta, 2007). Consistent with the findings of the current study, in the context of the Awi Administrative Zone of the Amhara Region, the existence of problems such as a lack of instructional materials, teachers' loss of interest, a lack of training, and teachers' attitude toward media utilization are factors that affect the utilization of educational radio programs (Ayalew, 2016).

## CONCLUSIONS

The study found that educational radio programs are crucial for enhancing listening skills in both students and teachers while also supporting subject content. These programs provide guidance for teachers on effective teaching practices, which can boost student motivation and interest. Educational radio programs present classroom lessons in

various formats. The findings indicated that primary school teachers and principals are highly aware of the importance of these programs in the study area; however, they do not utilize them effectively in the teaching and learning process. The use of educational radio programs in primary schools varies based on factors such as school leadership, teacher motivation, and available resources. Teachers' engagement with educational radio is influenced by the number of radios, electricity availability, class size, teacher workload, and transmission quality. In the study area, primary school teachers moderately utilize educational radio broadcasting for classroom instruction. Additionally, the findings indicated that the usage of educational radio programs was affected by classroom size, the number of sections, the ratio of radios to direct transmission, scheduling mismatches between school and radio programs, inadequate follow-up, power supply issues, and a lack of commitment from school principals and teachers.

## Recommendations

It is recommended that the educational media agency collaborate with the Woreda Education Office and primary schools to organize seminars, workshops, and provide targeted training for primary school teachers on effectively utilizing educational radio programs. Additionally, the Oromia Education Bureau should develop a standardized educational radio program and a coordinated schedule for primary schools, while raising awareness among the stakeholders about the importance and use of the schedule. The utilization of educational radio programs is crucial for enhancing student motivation and engagement. Therefore, the Haramaya educational media and Woreda Education Office should supervise, monitor, and support the primary schools to ensure the effective implementation of the educational radio programs. There are challenges such as insufficient availability of teacher guides for radio lessons, lack of radio sets, unreliable power supply, schedule mismatch, and minimal use of illustrative

Mohammed & Dawit

materials during radio programs. Efforts to improve the distribution of teacher guides, provide adequate radio sets and power solutions, streamline scheduling, and encourage the use of supportive teaching aids are crucial to maximize the impact of educational radio programs.

### CRedit Authorship Contribution Statement

**Mohammed Abdo Hassen:** Conceptualization, Data Collection, Data Analysis, Model Development and Analysis, and Writing an Original Draft. **Dawit Negassa Golga:** Model Validation, Supervision, Review, and Editing.

### Declaration of Competing Interest

The authors declare no conflict of interest.

### Ethical Approval

Not applicable.

### Data Availability

The data used in this study are available upon request.

### Acknowledgments

The authors would like to offer their heartfelt appreciation and gratitude to the principals and teachers of Haramaya Town primary schools (Gada and Almaz Bom), the head of the Haramaya Educational Media Agency, and Haramaya University for providing the necessary support to complete this study.

### REFERENCES

- Annaith, A. (2012). Broadcast media and the constraints of Secondary School Students learning in Nigeria. *The proceeding of the 31st National Convention/conference of National Association of Educational Media and Technology (NAEMT)*, Minna, Sept. 20-26th p. 89-92. <http://irepo.futminna.edu.ng:8080/jspui/bitstream/123456789/8916/1/BROADCAST.pdf>
- Ayalew, B. (2016). Intervention on the interactive radio English instruction and its impact on

*Sci. Technol. Arts Res. J., Oct. –Dec, 2025, 14(4), 29-43* grade three students' listening comprehension. *The Internet Journal Language, Culture and Society*, 42, 13-20. <https://aaref.com.au/wp-content/uploads/2018/05/42-2.-Biset.pdf>

- Burns, M. (2006). *Improving teaching quality in Guinea with interactive radio instruction. Working paper* (2), 15. [https://www.infodev.org/infodev-files/resource/Infodev Documents\\_500.pdf](https://www.infodev.org/infodev-files/resource/Infodev Documents_500.pdf)
- Butcher, N. (2003). *Technological infrastructure and use of ICT in education in Africa: An overview*. Association for the Development of Education in Africa. Calif.: Sage. <https://unesdoc.unesco.org/ark:/48223/pf0000144042>
- Couch, L., W. (1997). *Digital and Analog Communication Systems* (8th Edition). Prentice Hall: Pearson Education, Inc.). <http://www.couch.ece.ufl.edu/Book-8Ed/BookContentsPreface-Couch8thEd.pdf>
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage. [https://www.ucg.ac.me/skladiste/blog\\_609332/objava\\_105202/failover/Creswell.pdf](https://www.ucg.ac.me/skladiste/blog_609332/objava_105202/failover/Creswell.pdf)
- Creswell, J. W. (2013). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (3rd ed.). Sage. Library of Congress Cataloging-in-Publication Data. <https://revistapsicologia.org/public/formato/cuali2.pdf>
- Creswell, J. W., Klassen, A. C., Plano Clark, V. L., & Smith, K. C. (2011). Best practices for mixed methods research in the health sciences. *Bethesda (Maryland): National Institutes of Health*, 2013(2011), 541-545. [https://obssr.od.nih.gov/sites/obssr/files/Best\\_Practices\\_for\\_Mixed\\_Methods\\_Research.pdf](https://obssr.od.nih.gov/sites/obssr/files/Best_Practices_for_Mixed_Methods_Research.pdf)
- Dorcah, A., Abraham, M. & Genevieve, W. (2014). Factors affecting use of radio broadcasting in public primary schools in Tharaka North Division, Tharaka District. *International Journal of Education and Research*, 2(6), 53-62. <https://www.ijern.com/journal/June-2014/05.pdf>

*A Peer-reviewed Official International Journal of Wollega University, Ethiopia*



- Eyyam, R., Meneviş, I., & Doğruer, N. (2010). Perceptions of prospective teachers towards technology use in class. *Procedia-Social and Behavioral Sciences*, 3, 88-93. <https://doi.org/10.1016/j.sbspro.2010.07.016>
- Tracy, S. J. (2010). Qualitative quality: Eight "big-tent" criteria for excellent qualitative research. *Qualitative inquiry*, 16(10), 837-851. <https://doi.org/10.1177/1077800410383121>
- Kinder, J.S. (1959). *Audio-visual Materials and Techniques*. Revised Edition New York: American Book Company, Cincinnati Chicago Boston. <https://www.amazon.com/Audio-visual-materials-techniques-James-Kinder/dp/B0007E2F6G>
- Lai, C. H., Yang, J. C., Chen, F. C., Ho, C. W., & Chan, T. W. (2007). Affordances of mobile technologies for experiential learning: the interplay of technology and pedagogical practices. *Journal of Computer Assisted Learning*, 23(4), 326-337. <https://doi.org/10.1111/j.1365-2729.2007.00237.x>
- Leedham, J. (1972). *Aspects of Educational Technology*. Association For Programmed Learning. Volume 6, Pitman Publishing. <https://unesdoc.unesco.org/ark:/48223/pf0000189171>
- Ministry of Education. (2008). Educational Statistics Annual Abstract. Addis Ababa: Berhanena Selam Printing Enterprise. <https://www.scribd.com/document/27732904/2000-Statistics-Annual>
- Ministry of Education. (2009). Curriculum framework for Ethiopian education (KG-Grade 12). Addis Ababa. [https://moe.gov.et/storage/Books/Curriculum%20Framework%20for%20Ethiopian%20Education%20\(K\\_G%20%E2%80%93%20Grade%2012\).pdf](https://moe.gov.et/storage/Books/Curriculum%20Framework%20for%20Ethiopian%20Education%20(K_G%20%E2%80%93%20Grade%2012).pdf)
- Ministry of Education. (2018). Ethiopian Education Development Roadmap, An integrated Executive Summary, Addis Ababa, Ethiopia. [https://planipolis.iiep.unesco.org/sites/default/files/ressources/ethiopia\\_education\\_development\\_roadmap\\_2018-2030.pdf](https://planipolis.iiep.unesco.org/sites/default/files/ressources/ethiopia_education_development_roadmap_2018-2030.pdf)
- Mulgeta, A. (2007). *Effectiveness of the utilization of educational radio programs in Primary* *A Peer-reviewed Official International Journal of Wollega University, Ethiopia*
- Sci. Technol. Arts Res. J., Oct. –Dec, 2025, 14(4), 29-43*  
*schools in Addis Ababa: the case of three primary schools*. Addis Ababa University. <http://etd.aau.edu.et/handle/12345678/16209>
- Nekatibeb, T. (2004). The Effectiveness of Grade One English Interactive Radio Instruction Programs in Ethiopia. *The Ethiopian Journal of Education*, 24(1), 1-30. <https://www.jstor.org/stable/48815809>
- Odera, F. Y. (2011). Learning English Language by Radio in Primary Schools in Kenya. *Online Submission*. <https://files.eric.ed.gov/fulltext/ED529920.pdf>
- Opdenakker, R. J. G. (2006). Advantages and disadvantages of four interview techniques in qualitative research. In *Forum Qualitative Sozialforschung=Forum: Qualitative Social Research*: 7(4). <https://www.qualitative-research.net/index.php/fqs/article/view/175/392>
- Patton, M. Q. (2002). Two decades of developments in qualitative inquiry: A personal, experiential perspective. *Qualitative social work*, 1(3), 261-283. <https://doi.org/10.1177/1473325002001003636>
- Percival, J. (1998). *A Hand Book of Educational Technology*. London: Kagan Page [https://books.google.com.et/books/about/A\\_Handbook\\_of\\_Educational\\_Technology.html?id=ewzLleUBvLYC&redir\\_esc=y](https://books.google.com.et/books/about/A_Handbook_of_Educational_Technology.html?id=ewzLleUBvLYC&redir_esc=y)
- Rossman, G. B., & Rallis, S. F. (1998). *Learning in the field: An introduction to qualitative research*. Thousand Oaks, CA: Sage. <https://doi.org/10.4135/9781071802694.n2>
- Sambo, M. H., Kukwi, I. J., Eggari, S. O., Mahmuda, A. M., & Headquarters, J. A. M. B. (2014). Assessment of the implementation of Basic Science Program in junior secondary school in Nasarawa West Zone. *Assessment*, 4(20). [https://scholar.google.com/scholar?hl=en&as\\_sdt=0%2C5&q=Assessment+of+the+Implementation+of+Basic+Science+Programme+in+Junior+Secondary+School+in+Nasarawa+West+Zone&btnG=](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Assessment+of+the+Implementation+of+Basic+Science+Programme+in+Junior+Secondary+School+in+Nasarawa+West+Zone&btnG=)
- Sanusi, B. O., Talabi, F. O., Adelabu, O. T., & Alade, M. (2021). Educational radio broadcasting and its effectiveness on adult

Mohammed & Dawit

- literacy in Lagos. *Sage Open*, 11(2), 1-8. <https://journals.sagepub.com/doi/pdf/10.1177/21582440211016374>
- South African Institute for Distance Education. (2004). *Distance Education and Open Learning in Sub-Saharan Africa: Criteria and Conditions for Quality and Critical Success Factors*. Sub-Regional conference on Integration of ICT in Education for West Africa: Issues and Challenges. <https://eric.ed.gov/?id=ED503326>
- Teshome, N. (1998). *Media utilization and school improvement. A case study of primary Education Radio Support Programs in Ethiopia* (Doctoral dissertation, Doctoral dissertation for *Sci. Technol. Arts Res. J.*, Oct. –Dec, 2025, 14(4), 29-43
- the Ph. D. degree in International and Comparative Education, Institute of International Education, Stockholm University, Sweden). [https://books.google.com/books/about/Media\\_Utilization\\_and\\_School\\_Improvement.html?id=sxalaqaaiaaj](https://books.google.com/books/about/Media_Utilization_and_School_Improvement.html?id=sxalaqaaiaaj)
- Tilson, D. T., & Bekele, D. (2000). Ethiopia: Educational radio and television. *Technologies*, May/June. [http://www.techknowlogia.org/TKL\\_Articles/PDF/121.pdf](http://www.techknowlogia.org/TKL_Articles/PDF/121.pdf)
- Waite, D. (2014). Teaching the unteachable: Some issues of qualitative research pedagogy. *Qualitative Inquiry*, 20(3), 267-281. <https://doi.org/10.1177/1077800413489532>