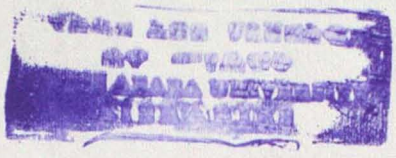
The Effectiveness of the Practice of the Plasma-channeled ELT in Addis Ababa Preparatory Schools



Berhanu Abera

A Thesis Submitted to the Department of Foreign Languages and Literature

Presented in Fulfillment of the Requirements for the Degree of Doctor of Philosophy (Teaching English as a Foreign Language)

Addis Ababa University

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ABSTRACT

This study was designed to assess the overall effectiveness of the practice of the plasma-channeled English language teaching (ELT) and its developments. It aimed to find out whether or not the plasma-based English language instruction was practised as planned and to examine the improvements that have been made. To gather data for the study, five different instruments, namely observation, questionnaire, interview, researcher's diary and documentary source were used. Both quantitative and qualitative techniques were employed to analyze the data obtained. The results of the study revealed that the screen teachers' ways of delivery were tended to mismatch with students' level of understanding. Moreover, televised activities were found to be interesting and fitting to develop students' different language skills, and the participation of students during the televised instruction was encouraging. However, students were given insufficient time to perform the activities and were provided with less support from their classroom teachers. The required arrangements (administrative and technical support services) were not also made for students and their teachers. Furthermore, the knowledge of the classroom teachers was found to be linked with subject matter knowledge and pedagogical knowledge; their technological pedagogical content knowledge was low. Moreover, problems like awareness, attitude, systematic linkage, professional competence, teaching-learning philosophy, speed, time, psychological and political factors were identified as major challenges of the practice of the plasma-channeled ELT. The study also revealed that allocating equal time for the classroom teacher and the plasma presenter, improving the pace of plasma presenters and the nature of screen activities and setting up a digitization project were among the improvements that have been made. Based on the results, recommendations have been forwarded and further studies have been recommended.

Keywords: *English language teaching, instructional technologies, instructional television, plasma-channeled instruction, and technological pedagogical content knowledge.*

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All things were made through God, and without Him nothing was made, I thank Him!

Dedicated to my teachers

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Abbreviations and Acronyms

AU	African Union
CALL	Computer Assisted Language Learning
CEICT	Center for Educational Information and Communication Technology
ECA	Economic Commission for Africa
EFA	Education for All
EFL	English as a Foreign Language
ELT	English Language Teaching
EMA	Educational Media Agency
ENE	English for New Ethiopian
ESDP	Education Sector Development Program
ESL	English as a Second Language
ICDR	Institute of Curriculum Development and Research
ICT4E	Information Communication Technology for Education
ICT	Information Communication Technology
ITV	Instructional Television
MDGs	Millennium Development Goals
MoE	Ministry of Education
NEPAD	New Partnership for Africa's Development
PDP	Plasma Display Panel
Pic	Picture
PTVI	Plasma Television Instruction
SD	Standard Deviation
TALL	Technology Assisted Language Learning
TELL	Technology Enhanced Language Learning
TPACK	Technological Pedagogical Content Knowledge
VSAT	Very Small Aperture Terminal
WELL	Web Enhanced Language Learning

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The history of language teaching shows that scholars have strived for searching the most effective ways of teaching second or foreign languages. Through the debate that has lasted for centuries concerning which approaches to learning and teaching are most effective in producing better learning outcomes, a number of useful approaches and methods have been proposed (Williams, 2002; Richards and Rodgers, 2001). Each proposed method/approach has been superseded by another. That is, the Grammar-Translation Method of language learning was one of the first to be implemented (Stern, 1983; Brown, 1994; Richards and Rogers, 2001; Porte, 2007). The Direct Method which emphasizes the need to listen constantly to target-language speech also came in the nineteenth century (Williams, 2002). Then, the Audio-lingual Method was developed in the 1940s (Howatt and Widdowson, 2004; Porte, 2007). The Total Physical Response (TPR) with an emphasis on comprehension before oral participation, and the Natural Approach whose emphasis is placed on affective factors rather than cognitive ones are other methodological innovations (Krashen and Terrel, 1983; Brown, 1994; Richards and Rogers, 2001). Next, Communicative Language Teaching (CLT) which encourages the enlightened utilization of past methods and whose fundamental goal is to teach learners to communicate by extensive interaction in the target language has been proposed (Littlewood, 1981; Brown, 1994).

Currently, ESL/EFL teachers are encouraged to explore what works and what does not work in a certain ELT context, using what Brown (2007) calls an enlightened and eclectic approach/method. This suggests that teachers explore all language teaching approaches and methods since no single approach or method is best suited for all teaching contexts. With clearly identifiable sets of theoretical principles and classroom procedures associated

with language teaching, scholars have also proposed the post- method pedagogy which can be visualized as a three-dimensional system consisting of three pedagogic parameters: particularity, practicality, and possibility. To be precise, the proponents of post-method perspectives such as Kumaravadivelu(2006) argued that language teaching must be sensitive to a particular group of teachers teaching a particular group of learners pursuing a particular set of goals within a particular institutional context embedded in a particular socio-cultural milieu (particularity). Language teaching must also relate broadly the relationship between theory and practice, and narrowly to the teacher's skill in monitoring his or her own teaching effectiveness (practicality), and language teaching need to develop theories, forms of knowledge, and social practices that work with the experiences that people bring to the pedagogical setting (possibility). These ideas encourage teachers to go beyond methods and promote a self-awareness of no best methods for learning and teaching.

This implies that language teaching has been characterized by frequent changes in orientations. That is to say, the initial goal of second or foreign language study was to learn a language in order to master its structural features. Gradually, language specialists placed an emphasis on the communicative aspects of language. Creative self-expression has come to be valued over recitation of memorized dialogues. Negotiation of meaning has come to take precedence over structural drill practice. Comprehension has taken on new importance. Culture has received renewed interest and emphasis. Language teaching materials have begun to distinguish spoken and written language forms, and incorporate authentic texts (Kern and Warshcauer, 2000). Issues of eclecticism (the random and expedient use of whatever method comes most readily to hand, or teachers attempt to derive a method of their own) have also become fashionable in post-methods era of language teaching (Kumaravadivelu, 2006).

It is in the context of these multifarious changes that one of the most significant areas of innovation in language education, instructional TV, has come of age. That is, in 1956 a few hundred TV channels were set aside for educational use in Chicago's TV College (Knirk and Gustafson, 1986). A big burst of activity in the development of alternatives to traditional education also occurred in the 1960s and 1970s in response to changing social climate and needs such as low cost and convenience in different countries (Nasseh, 1997). The late 1970s and early 1980s brought about the use of cable and satellite TV as a delivery medium for one-directional audio and video in education settings (Moore and Kersley, 2005; Nasseh, 1997). Teleconferencing with audio conferencing capabilities, which allow two-way audio interaction in real time, was also used later in the same time period (Fladd, 2007).

In fact, using instructional technologies in education goes beyond instructional TV in the 21st century. In line with this, UNESCO (2002) reports that educational systems around the world are under increasing pressure to use the new information and communication technology to teach students the knowledge and skills they need in the 21st century. Dominguez et al. (2005) similarly state that the application of ICT is, these days, widespread throughout all types of teaching institutions.

Specifically, in language teaching/learning, with the increasing capacity of information and communication technologies, there has been a rise in new learning opportunities beyond the traditional 'book-teacher' and/or 'talk-chalk' mode. There are a variety of computer applications that allow teachers to create their own exercises to supplement existing language courses. Moreover, the multimedia capabilities of computers can provide immediate feedback to students and they can work at an individualized pace (Chun and Brand, 1992). Televised language instruction, computer assisted language learning (CALL), technology assisted language learning (TALL) or technology enhanced language learning (TELL) and web enhanced language learning (WELL) are examples of these.

With technology continuing to boost the learning activities that take place in today's classroom, there is a growing recognition of its potential value in establishing and supporting a foreign language-teaching environment. Spodork (2001) notes that technological applications are especially significant means of fostering learner-centered environment in the foreign language classroom.

In Ethiopia, an Education and Training Policy was put in place in April 1994 to achieve the national economic and social development goals of the country (TGE, 1994), and a rolling Education Sector Development Programme (ESDP) was launched in 1997/98 to meet the Education for All (EFA), and Millennium Development Goals (MDGs) by 2015 (MoE, 2008a). The first ESDP (1997/98 to 2001/02) derived its goals and strategies directly from the Education and Training Policy. Subsequently, the Government developed a second comprehensive five-year education program (2000/01 to 2004/05) to align it with the five-year term of the government. ESDP III which spans five years (2005/06 to 2010/11) was then developed and implemented (MoE, 2005). ESDP III, the Ethiopian national action plan on education, specifically, discusses that ICT infrastructures are provided to schools to receive satellite education transmission to enhance the quality of education at secondary level. Moreover, with the objective of improving the quality of education and supporting teachers, the process has started to make use of School Net service for the 161 preparatory schools (grade 11-12) (MoE, 2005). As stated in the document, ESDP III, the objective of the School Net program is to support the country's education system with ICT. This involves providing personal computers to schools to set-up internet laboratories, organizing training for teachers, digitization of existing video-based educational contents for web access and eventually facilitating community access to ICT. In addition to enhancing the quality of educational delivery in the schools, the Internet facility provided through the School Net project will enable teachers to develop their professional qualifications. It will also allow students to access the Internet and other online resources as well as to access global knowledge

services and also display and download the content broadcast through the satellite television from Educational Media Agency (EMA) to their Local Area Network (LAN).

This is to mean that new initiatives have been in place to improve the 'quality' of secondary education by using ICT since 2004. In line with this, Hare (2007) mentions that Ethiopia sets ICT for education policy and implementation plan to become a model ICT user on the continent. Similarly, Frith (2005) explains that the country has been trying its best by developing curricula for ICT and facilitating with technologies like computers, the Internet, satellite TV so as to make every individual knowledgeable and skillful in applying ICT in his/her day-to-day activities

The ICT for education policy which extends from the policy includes the ICT in education implementation strategies and action plan. The ICT in education implementation strategy and its corresponding action plan are components of a wider Ethiopian national e-education initiative. This initiative forms one of the pillars of the ICT for development 2010 plan (Hare, 2007). One of the plans main streams is National School Net Initiative which is aimed at the deployment and exploitation of ICTs to facilitate the teaching and learning process within primary, secondary, technical and vocational schools (Ministry of Capacity Building, 2006). The initiative recognizes ICT as an enabler for widening access to education for the Ethiopian population, for supporting literacy education, and for facilitating delivery and training at all levels.

A report on the development of education in Ethiopia also indicates that the main activities that are accomplished in the country's ICT project includes, production of Educational TV programs, installation of satellite receiving devices known as Plasma Display Panels (PDPs) in every classroom at secondary level, establishing a computer network system, and installation of satellite TV programs transition system at the center EMA (FDRE, 2004). Concerning this, Jeylan (2006) maintains that teaching through Digital Video Broadcasting (DVB), Plasma Display Panels (PDPs), is one agenda, which

the government applauds as a transformative leap in the country's education development.

It has been believed that plasma instruction helps to offer quality and equitable education for all children in the schools. For instance, Demissew (2006) wrote that ICT has gradually been introduced in the country: starting with instructional TV (Plasma TV) followed by computer based instruction, ultimately, multi-modal or all ICTs that contribute to the achievement of educational goals and targets in schools. This is to mean that the government recognizes the benefit of ICT for education and makes some remarkable efforts to use it in education system of the country. For this reason, the government has launched the plasma mode of instruction since September 2004 in secondary education educational system of the country and planned to implement other applications of ICT step by step.

According to Media Club South Africa (2009), when the plasma project began, Ethiopia's Ministry of Education requested two South African companies (Kagiso and Sasani) to produce 2978 individual programs of 6 subjects (English, mathematics, physics, chemistry, biology and civics and ethical education) in 12 months. In response, Kagiso and Sesani created what they called 'a television factory' in Lyndhurst, Johannesburg, naming it 'Memar TV' which means 'to learn' in Amharic. During production, 60 teachers, scriptwriters and subject experts, and 80 full-time technical staff participated. The programs included graphics, studio presentations and visuals taped in both South Africa and Ethiopia. In the end, 450 schools were equipped with 8000 plasma screens. The project was supported by a US$80-milion World Bank loan.

In 2004, the plasma based instruction launched throughout the country in the aforementioned 6 subjects. Later in 2006, three other school subjects (technical drawing, general business and economics) were also added for preparatory students. However, the transmission of English language and civics and ethical education was interrupted in September 2009. The

transmission of other subjects with the exception of three subjects (technical drawing, general business and economics) was also interrupted in September 2010. This is because of the new curriculum framework of the secondary school education and productions of new plasma lessons in line with the new textbooks. Then after, the plasma-based instruction has resumed since September 2011 in 6 subjects. That is, according to CEICT (2011a), with the objective of upgrading the quality and relevance of secondary education, some additional improvement measures have been made, and 1482 new plasma programs have been produced and aired in six subjects: English, mathematics, physics, chemistry, biology and civics and ethical education. The content of plasma lessons are all based on the new syllabi.

All plasma p rograms have only been delivered to government secondary schools in the country through a closed-circuit system using very small aperture terminal (VSAT) satellite dish. This system provided a narrowcast facility that extended across the country. The signals have been broadcast from CEICT which is found in center of the country, Addis Ababa. The central location of the area makes it ideally suited to the transmission system. The program is expected to transmit uniform education to many students to have access to model and competent teachers, provide standardized education to all high schools, present abstract concepts in a simplified manner, and overcome the problem of qualified teachers (FDRE, 2004).

The plasma TV program is organized around lessons presented by a plasma teacher and performed by students. A classroom teacher is assumed to facilitate and monitor the lessons. Each lesson of the terminated plasma lasts for thirty minutes and has a regular structure. In the first five minutes, the classroom teacher is expected to introduce the lesson to be transmitted, and then switch on the television. For the next thirty minutes, the plasma teacher delivers the lessons. The classroom teacher and students listen to the presentations and perform different activities as they are instructed (the teacher facilities and/or monitors; the students perform tasks). After the presentation, the classroom teacher switches off the television and is

expected to spend the last five minutes bringing the session to a close. Two minutes have also been added for transitional period from lessons to lessons. The improved plasma lesson presents selected lessons from each unit in conjunction with instructional print materials. Each lesson lasts for twenty minutes and gives the remaining twenty minutes of the period to the classroom teacher. It is expected that the classroom teachers turn on the TV and get students watch the plasma lessons for 20 minutes. At the end of the TV session, the set is turned off and the text book, blackboard and the classroom teacher take over following detailed instructions on what to do in the remaining 20 minutes. The programs are aired from 8:02 a.m. to 05:00 p.m. for regular students and from 5:35 p.m. to 8:00 a.m. for evening classes in almost all of the governmental secondary schools throughout the country. The program is also broadcasted on Saturdays for grade 9 and 10 students from 8:00 a.m. to 12:15 p.m. (CEICT, 2011a).

It is claimed by CEICT that the plasma TV program in Ethiopia is to be an amalgam of instruction and entertainment, capitalizing on the reputation of television and the nature of the medium to bring excitement to the teaching and learning process in classrooms. Using the satellite technology is also believed to ensure the quality of education. Bearing this in mind, English language is among the subjects which have been selected to be aired via satellite (plasma display panel). It is assumed that students are highly benefited from the plasma program to develop their English language skills (ability to understand what is said in English language and communicate with it, and mastering the linguistic aspect of the language and use it) than they are taught using the traditional teacher-chalk approach.

The plasma television instruction (PTV), like any other instructional technologies can be used in language teaching. However, the plasma television instruction itself does not bring improvements in learning. What makes it fruitful is the way we use it. In line with this, Zhao (2003) asserts that a specific technology may hold great educational potential. However, unless it is used properly, it may not have any positive impact at all learning. The

effects of any technology on learning outcomes lie in its uses. Damtew also (2005:80) strengthens this saying, "In applying technology what makes it fruitful is not the way we have; rather the way we use it effectively and efficiently." Thus, it is necessary to look into particularly the effectiveness of the practice of the plasma-based ELT and its developments in particular contexts since assessing the effectiveness of a technology in reality is assessing the effectiveness of its uses rather than the technology itself. It is believed that the effectiveness of the televised ELT is highly determined by variables such as: the learner, the classroom teacher, the activities/contents, the instructional settings, the support services and facilities. The study, therefore, considered these variables to examine the effectiveness of using the plasma TV technology in teaching English language in Addis Ababa government preparatory schools in focus. In a nutshell, the study is concerned with contextual (input) variables–interventions and determinates of the effectiveness of practicing the plasma-based instruction, and process variables for the improvement (overhaul) of the program, which have a great impact on students' learning outcomes.

1.2 Statement of the Problem

Educational technology has evolved and become more central to teaching and learning nowadays. Before the twentieth century, the three primary means of instruction were the teacher, the textbook, and the chalkboard. For most of the twentieth century, this remained largely true, with print media as the predominant technology in education. Books, paper, pens, and pencils were the fundamental means for accessing, communicating, and otherwise sharing information. While many would argue, this is still true today, technology's increasing influence and impact on education cannot be doubted. Since the turn of the century, teachers have used a variety of audio and visual aids to supplement instruction, including film, radio, slides, recordings, and the overhead projector (Farenga and Ness, 2005). Clearly visible during the 20th centu ry is the growth in complexity from the early stereographs, through to radio, film, and TV, to personal computers, CAI

(computer-aided instruction), and the Internet (Whelan, 2005). Technology resources- e-mail, Weblogs, game-based learning tools, the Internet and the World Wide Web (WWW), and multimedia - are also increasingly common components of the instructional experience in the millennium (21st century) globally, especially in technologically advanced countries. With instructional technologies perceived potential to improve educational effectiveness and access, in developing countries this trend has increased as well. Through movements of theories of language teaching-learning, the use of instructional technologies in language education has become a trend even if educators are still concerned with the conventional instruction.

Instructional TV (plasma TV) like any other instructional technologies has been used in language teaching. Primarily when TV was introduced as instructional tool in the early 1950s, many of the earliest researches devalued the use of this medium though later numerous large scale projects and individual investigations sought to determine the effectiveness of this form of instruction in the classroom (Schramm, 1962; Stickell, 1963; Bessent, Harris and Thomas, 1968; Livingston, 1968; Ayers, 1972; Beisenherz, 1972; Hornik, 1978; Corteen and Williams, 1986). Similarly, during the debut of the plasma TV instruction in Ethiopia several perceptions were articulated by most students, classroom teachers, school communities, parents and politicians. To mention some of them as a glance, at that time, students were expressing their oppositions using expressions like: "They [the educational officials] experimented the program on us," they added, "it [the plasma lesson] ran as fast as a train." When they returned home they said, "We have been watching pictures the whole day." Furthermore, during their lessons when the plasma presenter appeared on the screen, they said, "Quiet! The plasma woman is coming." And then when she started to speak, they yelled, "May God exterminate you!" At the end of the transmission, they uttered as, "When do we get relief from this talkative mirror?" They also wished the screen were broken. Teachers as well talked informally their hatred towards the program in their staffrooms. They chewed the fact, "I enjoyed, thanks to the plasma."

Teachers also joked, "DJ, how is it?!" They said this because their students name them after DJ-Disc Jockey as their task was to switch on and off the plasma, maximizing and minimizing the volume of the plasma TV mounted in front of students (Ali, 2005; Berhanu, 2007).

Plasma was also a big deal for politicians at the time of the 2005 national elections. Most opposition parties failed to appreciate plasma TV in their debate on the country's education policy while the ruling party appreciated it. As Eskinder (2006) wrote on a website edition during the disturbances in the country (June, November 2005) following the May 2005 elections several high school students' rioting had resulted in schools' furniture and windows destruction including the Plasma TVs. The Addis Ababa Education Bureau had at the time stipulated to the dismay of the parents with little income that they would have to pay for the damage so as to replace the Plasma TVs. Following the edition, several visitors of this site expressed their commentaries towards abhorrence of plasma TV. A visitor considered plasma as an advanced technology of looting, kickbacks and overcharging. Another individual wondered why plasma TV was chosen instead of LCD and added that plasma degrades the picture quality throughout its life span - few years pass by, plasma would be good just for picture frame. Moreover, huge amount of money spent for the plasma screen, obsoleteness of the medium, mismatch of low level of students' English proficiency to follow plasma-based lessons, etc. were amongst most of the visitors' comments on the site towards plasma (Eskinder, 2006).

Tekeste (2006:33) in his discussion paper on Ethiopian education remarks that "experience with plasma education will undoubtedly grow but it is highly unlikely that this experience will be positive." He added that student dissatisfaction appears to gain momentum day by day as many students find it more and more difficult to follow their studies. Moreover, three studies conducted in the eastern part of the country found that the plasma TV dehumanized and deskilled teachers and it had a negative impact on teachers training programs, practicum-teacher candidates practiced operating TV to fit

into the existing reality instead of exercising how to teach (Brook, 2006; Kedir, 2006; Jeylan, 2006). Also a study carried out on selected high schools around Jimma University centers for practicum training, specifically mathematics education, showed that students encountered difficulty in understanding the TV lessons. It made teachers negligent, not punctual, not active, coming without preparation, too (Kassahun and Zelalem, 2005).

Some other studies conducted on the plasma-based education by graduate students in Addis Ababa University for partial fulfillment of the requirements of the Degree of Master's revealed that the program has faced obstacles and challenges. Ali (2005), in his qualitative case study on the use of satellite TV instruction, identifies that important educational objectives like understanding, critical and creative thinking skills were barely addressed; students were disengaged and teachers appeared to be de-skilled and de-professionalized. Similarly, Tewodros (2006) found out that both teachers and students were not engaged in the teaching and learning process. Mathewos (2006), in his case study on this instruction, concluded that the rhetoric transmission of satellite TV instruction was predominantly suitable for uniformity of transmission throughout the country from the same center, but not uniformity of learning. As a result, learning lacks cooperative and collaborative experiences and the functions and roles of rhetoric transmission of satellite TV instruction tend to victimize effective teaching and learning rather vitalizing it. Getnet (2008) also mentions that students were dissatisfied with the plasma mode of instruction due to the high level of English language skills assumed by the plasma teacher.

Different investigations on the teaching of English language using the plasma-channeled instruction also identified some problems. The study of Aberash (2005) on students' participation in plasma-channeled speaking activities indicated that students' participation was very limited since they were not familiar with the program and were provided with less time and tasks to practice. Berhanu (2007) also identified that the plasma and classroom teacher were engaged in most of the spoken lessons instead of getting

students to speak. The pace of the plasma teacher was also a mismatch with the students' pace of learning. Kebede (2007) and Haregu (2008) identified that some of the difficulties students experienced while they were learning listening skills through the plasma TV were lack of visual material in the listening sections, problems of identifying the plasma teacher's accent, learners' poor concentration and environmental noises. Misganaw (2005), Leul (2006) and Habtamu (2007) in their studies on the attitude of English language teachers and students towards the program revealed that classroom teachers and students had negative attitude towards the televised instruction. Negash's (2008) comparative study on plasma and non-plasma reading lessons indicated that the method of the teaching reading employed by the televised teacher was found to be relatively different from that of the classroom teacher. The televised teacher employed better methods than the classroom teacher. Nevertheless, students were given no more chances to communicate or interact among themselves while they were taught via plasma TV. Another comparative study on grammar teaching methods by (Seyoum, 2008) indicated that the plasma teacher used inductive methods while the non-plasma teacher employed deductive methods of teaching grammar. Conversely, speed of the televised teacher, large class size and limited role of the classroom teachers were found to be the major hindering factors in implementing communicative grammar teaching effectively using the plasma TV.

In sum, the impact of the plasma TV instruction on students' learning has been a topic of much interest over the past years in Ethiopia since the introduction of the medium. Even though very few researches indicated that plasma television is beneficial for our students (EMA, 2005; Information Communication Technology Department, 2007), and though a few of the aforementioned studies tried to specify some of its relevance, the majority of earlier studies the researcher consulted showed that the use of plasma-based instruction created much more a series of problems than successes. Students and classroom teachers have encountered various difficulties. It

seems to be inefficient in enriching the intended curricula. The recommendations of all these studies emphasized the need for further research into the area.

From the above research works and the researcher's a closer look at the use of the medium as instructional tool at school level, he understood that though the idea of fitting plasma TVs in school has been a much debated scheme in terms of its efficiency, educational officials have still stuck to their plans so far. That is, while the front-line practitioners still complain about the program, CEICT of MoE has asserted the potential contribution of it to students' learning and continued to put into practice plasma lessons. Furthermore, even though efforts have been made to expand the PTV throughout the country, the program seems to have failed to meet its goal when it comes down to the ground reality. The practices of the program have deteriorated; there is a gap between the rhetoric and the reality (the intended and implemented plasma TV instruction). By virtue of the researcher's profession as English language teacher, he has specifically heard different complaints about the program from English language teachers and students. They complained that they had encountered several challenges to employ the PTV instruction appropriately. This has become the critical problem facing the country's secondary school English language teaching system as a component of the program. To fill this gap, the need for research in the area is, therefore, important as little research has been done.

Explicitly, before this study, some local researches were conducted on the plasma-mode of instruction. For example, as mentioned above, a number of works (Ali, 2005; Kassahun and Zelalem, 2005; Mathewos, 2006; Brook, 2006; Kedir, 2006; Tewodros, 2006; Jeylan, 2006; Getnet, 2008) investigated the uses of plasma TV as an instructional tool in different subjects and paradigms other than the English language. Other studies conducted by Misganaw (2005), Leul (2006) and Habtamu (2007) focused on issues like English language teachers' and students' perceptions/attitudes towards the program. What is more, the studies of

Aberash (2005), Berhanu (2007), Kebede (2007) and Haregu (2008), which have been carried out on the plasma-based English language teaching, emphasized the teaching of specific areas of language skills. Negash's (2008) and Seyoum's (2008) studies were comparative in nature (they compared methods employed by plasma and non-plasma teachers in teaching reading and grammar respectively). Most of these previous studies on the plasma-channeled English language education have focused on the teaching of specific language skills (listening, speaking, reading and writing), and language elements (vocabulary and grammar) through this medium. A few of them also stressed features such as attitude, motivation and strategy; no comprehensive study has so far been conducted. Yet, how effectively the plasma-channeled English language teaching has been employed and how its development (overhaul of the matured stage) can be achieved are still gaps in the research which this study attempts to fill. Therefore, in this study an attempt has been made to assess the overall effectiveness of the practices of the plasma-channeled English language teaching and its developments at school level; i.e., Addis Ababa government pr eparatory schools with different research objectives, contexts and informants.

1.3 Objectives of the Study

The general objective of the study was two-pronged. It was designed to assess the overall effectiveness of the practice of the plasma-channeled English language teaching (ELT) and its improvements. That is, the study aimed to find out whether or not the plasma-based English language instruction has been practised as planned and to examine the improvement that have been made.

Focusing on the issues of effectiveness, the study attempted to achieve the following specific objectives:

- to assess the delivery of the plasma TV instruction in teaching English language;

- to examine the Technological Pedagogical Content Knowledge of classroom English teachers and its application in the televised instruction;
- to look into the nature of the televised English language activities;
- to explore problems that students and English language teachers encounter in using the plasma-channeled instruction;
- to investigate the improvements that have been done to overcome the problems; and
- to examine how the improved plasma-based English language lessons are different from previous ones.

1.4 Research Questions

In view of the above objectives, the investigation attempts to answer the following basic research questions:

1. How is the plasma-channeled ELT delivered?
2. What is the technological pedagogical knowledge of English language teachers like and to what extent is this knowledge employed in the plasma-channeled English lessons?
3. What is the nature of the content of televised activities?
4. What major problems have students and English language teachers encountered in using the plasma-channeled instruction?
5. What improvements have been made to overcome the problems?
6. In what ways is the improved televised ELT different from the previous one?

1.5 Significance of the Study

The study documents and gives highlights about what the plasma-based English language teaching is like in government preparatory schools in Addis Ababa. It provides basic base line data concerning the application of televised ELT in the study area. By doing so, it is expected that the results of this study will help the practitioners, policy makers and experts to identify the root problems of the practice of plasma-based ELT and inform them how the program can be employed effectively and efficiently.

That is, it is believed that these bodies may benefit from the findings of this study if the results of the study are communicated. The study will help classroom English language teachers and school administrators to identify their weaknesses and strengths. They may start to play their proper roles if there are gaps noted through the research.

The investigation will also increase awareness among material developers, curriculum designers, policy makers and media experts in updating and/or restructuring the televised English language instruction in a way that could

bring tangible change in enhancing the English language teaching-learning process through the technology. Moreover, English language teacher trainers may identify areas to give attention to the use of instructional TV and designing methodology courses. Other researchers may also undertake studies in this area based on the finding of this study or they may further investigate the themes of this study.

Moreover, it is assumed that the study will find answers for the ongoing debate on the use of the plasma-based instruction in ELT and give an idea about the disparity and parity between the practice of the program and its objective.

1.6 Scope of the Study

The study could give more comprehensive information if it covered a large part of the country. However, due to constraints of time and other resources, the study has been delimited to government preparatory schools for higher education of Addis Ababa. Moreover, there are lots of technology based language instructions, radio, video, computer assisted language learning (CALL), web enhanced language learning (WELL) and others, but the focus of this study was limited to the practices of the plasma TV based English language teaching and its developments. It was specific to the practical issues related to the teaching of English language through plasma TV instruction in grades 11 and 12. It mainly investigated variables which come next to the production, conditions in the classroom that are pertinent to be looked into.

1.7 Limitations of the Study

The following are the limitations of the study. These are the factors that, in one way or another, may have affected the outcome of the study.

1. The research settings in this study are urban. This study did not show how the program is underway in rural areas, where the program is widely transmitted. Thus, the results are not generalizable to those settings.
2. The small number of expert respondents in this study might be interpreted as a limitation.
3. Views from other parties, such as curriculum experts, policy makers, supervisors, plasma technicians and parents may be equally important but do not fall within the scope of the present study.
4. The researcher did not have manipulative control of the independent variables because the study was non-experimental; therefore, no explicit cause-and-effect relationship can be determined.
5. As most of the respondents considered plasma TV program as an issue of politics, they did not wish to be interviewed and were reluctant to give pertinent information. This circumstance limited the required data to generate.

1.8 Operational Definition of Terms

The following terms may not be familiar to the reader. Pilot responses suggest that some readers may benefit from these definitions. The terms used in this study may carry a different interpretation in a different context. So, to avoid some possible confusion, the following are operational definitions of some of the terms used in this study.

- Improved plasma-channeled – indicates the new plasma-based English language education from its production in 2010/11 and its implementation since September 2011.
- Plasma – satellite television based instruction, referrers to locally as 'plasma'.
- Plasma-channeled – refers to satellite based instructions transmitted using the plasma television; it is synonymous to plasma-based, plasma-mode, televised and telecast.
- Terminated plasma-channeled – refers to the practices of the terminated plasma-based English language education from its beginning (September 2004) up to its termination (September 2009).

1.9 Organization of the Study

This study is divided into five chapters. The first chapter includes background of the history of language teaching, technology-based language teaching (specifically instructional TV based language teaching), and background of the plasma-channeled instruction. The research problem, objective of the study and research questions follow the background of the study. Next, significance, scope and limitation of the study are provided. Finally, definition of operational terms concludes the introduction chapter.

The second chapter provides a review of literature on the history and the theory of language learning, technology based language learning, the nature of instructional television and other relevant materials. The chapter also includes key indicators for the effectiveness of the utilization of instructional television.

The third chapter covers the conceptual framework and model of the study, the research design, settings and subjects. This section also presents information on data collection instruments and data analysis techniques used in the study. Finally, the chapter concludes with procedures of the study.

The fourth chapter presents the results of the analysis of the data of the study. It includes analysis and discussion of results of findings. The last chapter covers the summary, conclusions, recommendations and implications for future research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter surveys relevant literature works from the major subject fields underlying the project to justify its various conceptual foundations. It presents the relevant literature pertaining to the effectiveness of televised instruction. A historical overview of ELT in Ethiopia, evolution of information communication technologies in education, e-education/e-learning initiatives, instructional technologies and language learning, general information on instructional TV, facilitating and inhibiting factors for televised instruction, key indicators for the effectiveness of the utilization of ITV, relevant theories of language learning and instructional television, and the plasma-channeled English language instruction are reviewed in this chapter.

That is, first a historical overview of English language teaching in Ethiopia is reviewed. Secondly, evolution of information communication technologies in education ranging from low-tech to the most sophisticated ones is dealt and discussions on the use of instructional technologies in language teaching follow. Then, after discussing e-education/e-learning initiatives, the definition, development, nature, advantages and disadvantages of instructional TV with relevant studies on the medium is offered. Next, different factors which facilitate or hinder instructional technology based education in general and televised instruction in particular are discussed followed by key indicators for the effectiveness of the utilization of ITV. Finally, theories of language learning and instructional TV in relation to the plasma-channeled English language instruction are considered.

2.2 English Language Education in Ethiopia: A Brief Historical Overview

The English language is considered to be an international language, and consequently the learning of it has become a necessity in the modern era wherein several interests are interlinking with each other. English is the medium of communication of people all over the world. It is the language of sciences, media, economy, policy, and the like. To be precise, it is a dominant language and internationally agreed upon as a complementary element of development in different fields. This unique position of the English language has drawn attention to acquire it and students have been encouraged to acquire it in an attempt to know what is going on all over the world.

As in the rest of the world, English is given a unique position in Ethiopia. Communicating through the language is considered as sign of academic accomplishment. It is also taken as a key to students' academic success. This means that students coming to study at secondary schools, colleges and universities should have the necessary language skills in English in order to successfully accomplish the intended academic tasks. Good English command is widely considered as a criterion to recruit employees in almost all non-governmental organizations and most governmental organizations hosted in the country. This is to mean that knowing English has its own impact for successful lives of Ethiopian people. Keeping this in view, this section presents a brief historical overview of the language education in Ethiopia from the era of Menelike II in which modern education was introduced.

English as medium of instruction, along with the Western type of education was introduced in the Imperial government. According to Aleme (1974), the Coptic (Menelik) School which was opened by Menelik in 1908 in Addis Ababa and where French was the language of instruction, did introduce in later years an English section which was attended by a number of Ethiopians, who after completing the elementary stage at Addis Ababa went to Victoria College in Cairo and then to London. It was, in particular, in the year 1944

that the English language was adopted as a means of instruction with the designing of the 1947/48 elementary English curriculum and with the British Council's provision of teaching materials. Mostly Indians and American Peace Corps Volunteers were engaged in the teaching of English (Teshome 1979; Gebremedhin, 1993).

Ethiopia had a well-developed curriculum for English during the Monarchic regime. At that time, students in elementary grades were highly exposed to learning English. For instance, during those days, students were made to ask, communicate, present dramas in class, and write school journals. They were also encouraged to express their feelings to their teachers by writing letters (Sylvia, 1967 cited in Haregewain, 2008). It was said that a grade 8 student in the era of Emperor Haileselassie I was able to speak better English than a grade 12 student in *Derge* reign. That is, students had better English language command in the era of Emperor Haileselassie I. In line with this, Alemu (2004) mentioned that since students were taught by foreign English language teachers and since the number of students was few during the Monarchic regime, they had a good command of English. It is necessary to note here that there were no locally prepared textbooks for teaching the English language to Ethiopian students during that time. As Gebremedhin (1993) states, 'Contact Series' books , Oxford English course for Ethiopia, were specifically designed for teaching English in Ethiopian schools. Later they were replaced by 'English for new Ethiopian' (ENE).

After the socialist government(*Derg*) took power, English was taught as a subject from Grade three onwards and as a medium of instruction starting from grade 7 onwards(Nuru, 2000; Alemu, 2004; Mekasha, 2007; Solomon, 2007). During the *Derg* period (1974–91), 'English for New Ethiopian' (ENE) textbooks were developed locally by the Curriculum Division of the Ministry of Education for Ethiopian students for the first time. Even so, the ENE series were produced in a haste to fill the gap created as a result of the Ministry's decision to dispense with all materials and textbooks that were believed not to be reflecting the contemporary ideology, Socialism (Haregewoin, 2008). These books were designed in accordance with the structural approach. They

placed more emphasis on mastering of the grammar of the language than its communicative aspect.

Following the change of government in 1991 and the design of the new education policy, a significant change was made in language education. One of the main issues given priority in the 1994 education policy was the need to change the former school curriculum and introduce new textbooks on a sequential basis for the primary level starting from Grades 1 and 5. Accordingly, regional states started preparing new textbooks, other than the English textbooks, for Grades 1 and 5 in 1994 based on the centrally prepared syllabi, and modifying them to suit their specific situations. However, the responsibility of preparing English textbooks for all levels was given to the English Panel, Institute of Curriculum Development and Research (ICDR), Ministry of Education. Accordingly, the Ministry of Education prepared English textbooks for the primary level within four years, 1994/95 to 1997/8, and published "English for Ethiopia" series for the secondary level in 1996 under the guidance and technical assistance of experts from the British Council (Alemu, 2008). According to Alemu, the "English for Ethiopia" series differs greatly from the English for New Ethiopia series both in content and approach. For example, in the "English for Ethiopia" series, language skills that were excluded from the previous textbooks (speaking and writing) have been given the maximum teaching emphasis.

The 1994 Education and Training Policy proposed the replacement of the old ENE textbook with the new textbooks known as 'English for Ethiopia'. Even though the old textbooks have been replaced by the new ones, the English language proficiency of the students was still very low (Berhanu, 1999). It has been claimed that the Policy focuses on a student-centered approach. However, in the secondary schools, teachers follow the old traditional teacher-centered approach in spite of the seminars and workshops they have been exposed to (Sisay, 1999).

In conjunction with the "English for Ethiopia" textbooks, the Ministry of Education prepared and transmitted televised English lessons since

September 2004 for secondary education system of the country. In 2005 and 2006, the ICDR made revision of the textbooks of grades 9 – 12, although significant changes were not made. The revised versions of the "English for Ethiopia" t extbooks compiled originally prepared two texts (book one and book two) of grades 9 -11 into one book. Furthermore, some topics and language items were canceled and replaced by new ones. This caused problems in the plasma-channeled English language teaching which was prepared based on the texts books since the revised books did not coincide with the plasma lessons(pages were completely changed and the new portions were not incorporated in the plasma lessons). The plasma-based English language instruction was terminated in September 2009 and the old "English for Ethiopia" text books, both originally prepared and the revised ones have been used in teaching and learning process of the language. Currently, new textbooks have been prepared for secondary English language education of the country and have been being used corresponding to the newly designed plasma lessons.

2.3 The Evolution of Information Communication Technologies in Education

Before the introduction of instructional technologies, instructional media (audiovisual aids) which means supplementary items used for educational purposes beyond the teacher, textbook and chalkboard were used in the education world. Then, instructional technologies (educational technologies) include instructional media, which are combinations of hardware and software, have been used. These technologies may employ some combination of text, audio, video, and computer code, with the resulting content delivered locally or across great distances (Farenga and Ness, 2005). Clearly visible during the 20th century is the growth in complexity from the early stereographs, through to radio, film and TV, to personal computers, CAI (computer-aided instruction), and the Internet (Whelan, 2005). World War II during the 1940s played a significant role in the development of the field of instructional technology (Lin, 1995; Farenga and Ness, 2005). That is, World War II created an enormous instructional problem: thousands of military personnel had to be trained rapidly to perform thousands of tasks critical to their own survival and the success of the war effort. As response to this, the U.S. government produced and purchased sever al hundred training films, slide projectors, audio recording and playback equipment, equipment simulators, and the newly invented overhead projector.

Since then, the administrators of school learning resource centers have tried their best to equip their institution with all materials used in teaching and learning, whether printed, auditory, visual, tactile, or a combination of these (Lin, 1995). Lin further states that dating back to the beginning of the use of technology, the equipment included 16-mm motion picture films, 35-mm filmstrips, 8-mm film loops, slides, transparencies and overlays, videotapes, disc and tape recordings and related combinations of two or more media, often called "multimedia kits" were used. In addition, projectors of several types, record players, tape recorders, and small viewers were provided for the individual use. Nowadays, a computer includes all the functions.

When these instructional technologies became used, many teachers were afraid of the danger of the machine replacing them in the classroom. It is hardly surprising that they have been ambivalent about these devices; but the mood is ever-changing and the current model of computing in schools is one of the computer and other ICT resources as tools, rather than as teaching systems, enhancing learning rather than leading it (Hall, 2010). Gradually, a general consensus has been reached about the transformations of modern information and communication technologies in various aspects of human activity, particularly in the arts of teaching and learning. In this respect, various terms have been coined for this technology-enhanced education, such as information society, e-learning, and e-school, and many countries have acknowledged the fact that an investment in ICTs is considered to be as an investment in human capital development. Such investments are essential in order to meet the demands for new meanings of "school" and "learning," within the larger process of education reform (Evoh, 2007).

Today, instructional technologies have evolved and become more central to teaching and learning with the aim of making teaching and learning more productive. In order to trace the learning processes, several kinds of e-learning platforms have been proposed in the market and educators have been changing their educational programs to include the application of all forms of instructional technology. Especially, during the last decade of the millennium a surprising evolution of electronics, computer systems and information technologies, together with the worldwide accessibility to the Internet have made available an incredible set of applications. This trend has significantly conditioned the emerging and the evolution of new academic and industrial opportunities. As a result, e-learning has achieved a worldwide acceptance in several domains, such as universities, secondary schools, companies, and public (Ferrucci, Scanniello and Tortora, 2009).

These instructional technologies (using ICTs to enhance teaching and learning) are different in types. They are ranging from low technologies such as pencil and paper to digital technologies such as the Internet, digital video,

interactive whiteboards, and software programs (Schmidt et al, 2009). According to Adeyinka et al (2007), technologies available in classrooms can also range from simple tool-based applications (such as word processors), to online repositories of scientific data. Others are primary historical documents, handheld computers, closed-circuit television channels, and two-way distance learning classrooms. In brief, instructional technologies include a wide variety of learning strategies and ICT applications for exchanging information and gaining knowledge. Such ICT applications comprise television and radio; Compact Discs (CDs) and Digital Versatile Discs (DVDs); video conferencing; mobile technologies; web-based technologies; and electronic learning platforms (EDC, 2004; Whelan, 2005; Olakulehin, 2007; Hall, 2010).

No matter how ICT enhanced instructions are varied in nature. Before introducing them into the learning or teaching of any lesson, in any subject, it is essential to be considered whether or not ICT should be used at all. It is wise to consider whether or not instructional technologies facilitate teaching or learning that could not be achieved by traditional methods, make it easier, quicker or more enjoyable to accomplish a task, improve the quality of work, provide a welcome alternative approach to learning, enable learners, provide motivation, and help to achieve the desired learning outcome(Hall, 2010).

From the evolution of instructional technologies, we know that new forms never replace the old one, as Leinonen (n.d) said. That is, new forms of media rather complement the old ones, but do not countervail them; TV did not kill radio and Internet did not kill TV. EDC (2004) similarly mentions that instructional television based classrooms are becoming ever more technology enriched, as computers, the Internet, DVD players and a host of other digital technologies penetrate our nation's schools. Evidence also indicates that video, far from being supplanted, is becoming an increasingly essential part of classroom learning. This implies that old media are not faded away in the face of newer media. Different media devices and formats get mixed with each other and this way generates new forms that contain features from each of them. As EDC (2004) further states, iPod is a good example of this. It is a kind

of walkman of Internet era that can be used to have personalized radio shows (podcasting).

In view of this, generally, information and communication technologies in education nowadays are realized as any communication device or application, encompassing radio, television, cellular phones, computer and network hardware and software, satellite systems as well as the various services and applications associated with them.

2.4 E-education/E-learning Initiatives

Since the introduction of information and communication technologies (ICT), their integration into education has been policy concerns in many countries as it is believed the use of ICT in education can increase access to learning opportunities and help to enhance the quality of education with advanced teaching methods and improve learning. In relation to this, Hall (2010) states that as long ago as the early 1970s, educational researchers could appreciate that the system of didactic teaching was about to undergo a transformation. The notion that most learning is the result of teaching was, even then, an illusion. The reasons for this are many but the advent and steady development of technology has certainly played a major part. Sife, Lwoga and Sanga (2007) also wrote that developments in information and communication technologies have impacted all sectors of society, including the education sector. That is to say, the application of ICTs in form of e-learning (the use of ICTs to enhance and support teaching and learning processes) is already changing teaching and learning processes. Having this in mind, several e-learning/e-education initiatives have been carried out on the globe.

UNESCO's (2009) document on information communication technologies in education states that with the challenges faced by the international community in meeting the Millennium Development Goals (MDGs) and the Education for All (EFA) targets, it seems unrealistic to assume that conventional delivery mechanisms will ensure quality and equal educational opportunities for all in

affordable and sustainable ways by 2015. The document proposes the reforming of the conventional delivery systems by using information communication technologies in enhancing the quality of learning achievements, facilitating state of-the-art skills formation, sustaining lifelong learning and improving institutional management. Information communication technologies can also critical for reaching EFA goals by boosting the current rate of progress in developing countries.

Throughout the world, policy programs exist that aim to stimulate the use of ICT in education. Countries have incorporated the Information Communication Technology for Education (the acronym ICT4E) policy as part of their national policies. In line with their ICT4E policies, counties have developed several e-school/e-learning programs and initiatives. The New Partnership for Africa's Development (NEPAD) e-schools project is example of these. The NEPAD e-school project, according to Evoh (2007), aims to equip secondary schools (and later primary schools) in Africa with information and communication technologies (ICTs) to enable educational transformation to meet the demands of the 21st century. In the long-run, modern communication technologies are expected to be widely deployed for teaching and learning in primary and secondary schools across Africa. This broad-based technology-enhanced education is planned to be implemented through a collaborative partnership system in African countries.

The NEPAD e-schools project was publicly launched in Durban, South Africa during the Africa Summit of the World Economic Forum on June 12, 2003. The aim of the project is to impart ICT skills to young Africans in primary and secondary schools and utilize the potential of ICTs to improve, enrich and expand education in African countries (e-Africa Commission, 2006). A major aspect of the e-school system is the NEPAD e-school Satellite Network. This project is expected to provide a central and harmonized Internet connectivity for all schools in the NEPAD e-school system in Africa. In addition to connecting African schools to the Internet, the satellite network is expected to facilitate the distribution of educational contents in Africa (Evoh, 2007). It is

estimated that the 600,000 schools in rural and urban Africa (about 10 percent secondary schools) will benefit from this collaborative and technological intervention in education (Kinyanjui, 2003 cited in Evoh, 2007). The first phase of demo projects has been launched in July 2005 with a total of 16 countries believing it will serve as models for ICT integration in the continent. The demo project is expected to directly impact approximately 150,000 African learners and teachers in the participating countries (NEPAD, 2004).

Apart from the NEPAD e-School project, a wide range of programs and projects involve one or more African countries in varying numbers. Examples include high-level intergovernmental, multi-stakeholder programs such as, civil society institutions focused on networking African schools such as SchoolNet Africa (SNA), university partnerships such as the African Virtual University (AVU), and collaborative learning projects that directly involve learners and teachers from schools in several African countries such as the Global Teenager Project (GTP), Mtandao Afrika (MAf), World Links, and the International EducationResources Network (iEARN) (Farrel, Isaacs and Trucano, 2007). According to these scholars, a survey of ICT and Education in Africa on 53 counties revealed that there is a great deal of variance in using ICT for education among the African countries as:

> South Africa clearly is unique in terms of being able to move its ICT agenda forward. Several of the countries of North Africa that have both resources and high bandwidth connectivity with Europe have also been able to make excellent progress implementing their ICT plans. Those countries that are steadily moving to sustainable economies (Mauritius, Ghana, and Botswana, for example) constitute another group making remarkable progress. Perhaps the largest group is made up of those countries that are in transition from a sustained period of conflict and economic instability and are looking to ICT applications to help them meet myriad challenges – particularly the development of their human resource capacity. They are among the neediest in terms of assistance.
>
> (Farrel, Isaacs and Trucano, 2007:5)

To share experiences of ICTs in education in Africa relative to the rest of the world, an international conference on e-learning (eLearning Africa) has been hosted annually by the government of an African country. The first conference was held in 2006 in Addis Ababa, Ethiopia while the second was held in Nairobi, Kenya in 2007. In 2008, the conference was held in Accra, Ghana. Dakar, Senegal; Lusaka, Zambia; and Dar es Salaam, Tanzania hosted the conference in years 2009, 2010, 2011 respectively. The 2012 eLearning Africa conference was held in Cotonou, Benin (eLearning Africa).

As part of the continent, ICT for education initiatives have been made in Ethiopia to support the country's education system with ICT. The Government has designed policies and strategies and has allocated a huge amount of resources in a bid to integrate Information and Communication Technologies (ICTs) into the Ethiopian education system (Tefera, 2006). One of the country's ICT for education initiative, National SchoolNet, was introduced in 2004 aiming at the deployment and the exploitation of ICTs to facilitate the teaching and learning process within primary, secondary, technical and vocational schools, and higher institutions. In this respect, the country's Education Sector Development Program III (ESDP III) discusses that ICT infrastructures are provided to schools with the objective of improving the quality of education and supporting teachers, the process has started to make use of School Net service for the 161 preparatory schools- grade 11-12(MoE, 2005). As stated in the document, ESDP III, the School Net program involves providing personal computers to schools to set-up internet laboratories, organizing training for teachers, digitization of existing video-based educational contents for web access and eventually facilitating community access to ICT. In addition to enhancing the quality of educational delivery in the schools, the Internet facility provided through the School Net project will enable teachers to develop their professional qualifications.

Concerning the use of ICT in the country's education system, the ESDP IV which is being implemented also emphasizes the integration of ICT infrastructures to support the country's education system with ICT (MoE,

2010). The document states that the Government has made considerable investment in ICT infrastructure, especially at secondary school level. In view of this, 71.6% of secondary schools are equipped with plasma-TV and 26.1% have access to internet services. Some 3409 TV programs have been produced in nine subjects and consequently broadcasted through 12 satellite channels to secondary schools. Furthermore, in expanding and improving plasma-TV lesson delivery, new specifications have been made for six previously and three newly considered subjects. In addition, Digitized Satellite TV lessons have been piloted and preparations are under way to broadcast these digitized education programs online, by DVD and CD.

Even though such initiatives have been made in educational systems of the country, latest reports indicated that there is still low level of confidence amongst a number of teachers on the benefits of ICT and serious shortage of plasma TV in emerging regions. Lack of computers and servers in secondary schools and scarcity of accessories for maintenance of plasma TV's in all regions secondary schools are also the major encountered constraints of ICT4E initiatives of Ethiopia (MoE, 2011a). What is more, a study on the a widely used instructional technology in the secondary education system of the country (plasma TV instruction) revealed that Ethiopian teacher education program failed to educate connections between technology, the subject-matter (content) and the means of teaching it (the pedagogy). As a result of this, they applied their pedagogical content knowledge in the plasma-based instruction (Berhanu, 2011).

2.5 Information Communication Technologies and Language Learning

Research findings provided some evidence regarding the positive effects of the use of information and communications technology (ICT) on students' learning (Mumtaz, 2000). Specifically, in language teaching/learning, information communication technologies have been played a pivotal role for students' language learning. According to Singhal (1997), technology and foreign language education are no strangers to each other. In the sixties and seventies, language laboratories were being installed in numerous educational settings. Singhal further states that the traditional language laboratory comprised of a series of booths, each providing a cassette deck, and accompanying microphone and headphone. Using these laboratories, it was believed, the more students involved in oral practice the faster they would learn the foreign language. Acco rding to Milton (2006), there is really no evidence to suggest the use of language laboratories improved the efficiency of language learning overall. But for learners with specific needs, such as developing a good accent, then having the opportunity to speak and to monitor their production in a language laboratory, is likely to be more effective than a method that does not employ such a tool. In reality, language laboratories have proved to be a useful tool, but only one tool, in the hands of a good teacher, and a huge waste of time and money in the hands of a bad teacher.

While the language laboratory was a positive step in linking technology and language education, it was soon recognized that such activities were both tedious and boring for learners. Furthermore, the amount of student-teacher interaction was minimal. These and other factors, according to Singhal (1997), put together, led to a shift to the communicative approach to foreign language education, namely, computer assisted language learning and interactive satellite TV. Spodork (2001) similarly notes that these technological applications are especially significant means of fostering learner-centered environment in the foreign language classroom.

Various studies show that the use of instructional technologies in second language courses can improve and enrich students' L2 acquisition and greatly motivate students to continue learning their target language (Naimova, 2008). Technology in language education can also increase the variety or diversity of learning opportunities and the quality of the learning experience in making input of more varied kinds learnable and accessible to each individual learner (Pennington, 1996). Regarding the merit of technologies in foreign language education, M ayora (2006) states that they can help with some difficulties associated with the English as a Foreign Language (EFL) situation, such as large class sizes and mixed-ability classrooms. And where multimedia technology has been used for EFL instruction, better results have been achieved with training students to be autonomous learners. This explains the growing number of schools with facilities for students to access computers and audiovisual equipment.

Having these realities in mind, various types of instructional technologies have been incorporated in language education along with the development of language teaching-learning. As Stoyanov (2009) puts it, teachers who followed the grammar-translation method (in which the teacher explained grammatical rules and students performed translations) relied on the blackboard - a perfect media for the one-way transmission of information. The blackboard was later exchanged for the overhead projector, another excellent medium for the teacher dominated classroom, and later by early software programs which provided "drill-and-practice" grammatical exercises. The audio records were the perfect tool for the audio-lingual method (which favored learning through oral repetition). Language classes in the '70s and '80s usually incorporated sessions at the audio labs where students would perform repetition exercises. As was discussed in the first chapter, the audio-lingual method lost popularity by the end of 1970s due to inadequate results achieved from expensive language facilities. That is, both in the laboratory and in the classroom, repetitive drills which focused only on language form and ignored communicative meaning achieved poor results. As result, in the

1980s and 1990s language teaching was moved toward communicative language teaching, focusing on students' engagement in real-life, meaningful interaction (Littlewood, 1981; Brown, 1994; Richards and Rodgers, 2001; Kumaravadivelu, 2006). Within this trained of language education, various types of instructional technologies ranging from low-tech to high-tech have been incorporated. For example, the late 1970s and early 1980s one-directional audio and video instructions and then teleconferencing with audio conferencing capabilities, which allow two-way audio interaction in real time, were accommodated in language teaching-learning(Fladd, 2007; Moore and Kersley, 2005; Nasseh, 1997). Integrative television and computer mediated instruction have also been used in view of the commutative language teaching. What is more, in the post-method area of language teaching, numerous instructional technologies have been widespread.

In general, the usage of technology-based material in language teaching goes back to the early language laboratories and the use of audio material for text comprehension, and pronunciation practices. This prepared the ground for further application of ICT in language teaching with the development of the technology. Foreign language teaching today utilizes technology advances to enhance learning in classroom and to enable learning outside the classroom as well. The ICT-based approaches are selected for teaching language skills and language elements, such as oral skills, pronunciation, reading and writing skills, structure, vocabulary and translation. Above all, modern language instructions entertain the application of information technologies in different formats ranging from the old models to the new ones.

At present, there are a variety of computer applications available including vocabulary, grammar and pronunciation tutors, spell checkers, electronic workbooks, writing and reading programs, as well as various resources that allow teachers to create their own exercises to supplement existing language courses. However, this is not familiar in Ethiopia; using computers in language teaching is not common. This might be due to inadequacy of computers, little motivation of students, and inadequate techniques to impart

basic concepts that help individual users to experiment and expand their knowledge. As far as the researcher's experiences are concerned, in most government schools of Ethiopia, students are not encouraged to use computers for the purpose of language learning. Instead of computers, instructional televisions have been widely used.

2.6 Instructional Television

2.6.1 Definition of Instructional Television

Instructional Television (ITV), according to Fakomogbon (1999:28), is "basically a program, which has been deliberately developed for purposive learning." To Evans (2005), instructional television denotes a more formal learning experience where the course content is predetermined by the syllabus of some formal (academic) training institution. According to Mohanty (1984), ITV is meant to describe the use of television for formal courses regardless of age or grade level and for school instruction in parts of courses for direct teaching or for facilitating lecture-demonstrations.

Even though in some of the literatures pertaining instructional technology-based learning used the term interchangeably with educational television (ETV), many scholars make a suitable distinction between the two terms. Educational television (ETV) generally denotes any television, which is used for imparting education (Behera, 1995). Towards educational television Evans (2005) also states that such type of television programs constitute a broader learning experience in order to add significant knowledge or cultural experience of individuals depending on their interests, background knowledge and learning capacities. This is to mean that viewers are expected to learn incidentally through programming for entertainment and information purposes, learning may not occur intentionally to achieve certain instructional outcomes. If the program does not capture viewers' interest sufficiently, they can change channels or tune out it. The visual composition is not rigid as instructional televisions. That is, instructional televisions require learners to engage more fully with specific content matter while they analyze and reflect on their personal learning experience. Learners are not causal viewers, but committed to obtaining some form of accredited qualification.

In general, instructional televisions are programs specifically designed for classroom use. They are broadcasts relayed directly to an organized program of formal instruction and are directed at specified learners in schools, colleges

and universities. Such programs support the curriculum and are usually created with an advisory board of educators. They cover instructional content in a systematic fashion to achieve intentional educational objectives through purposeful learning from dedicated course materials.

2.6.2 An Overview of the Development of Instructional Television

Television is commonly considered to be the first invention by committee as it is the result of the efforts of many individuals separated geographically who were all spurred on by the urge to produce an instrument which could transmit and receive transient visual images (Smith, 1995 cited in Evans, 2005). It is a result of various inventors' mental output through times, and its technical origins have to be traced to different parts of the world. Explicitly, the scientific principles on which television is based were discovered in the course of basic research. Only much later were these concepts applied to television as it is known today (Salaberry, 2001).

Towards evolutional development of television, McNeil (1990) mentions that after the invention of the telephone in 1876, imaginative writers and artists were dreaming of the next step, which they called by such names as 'telephonoscope' or 'electric vision'. This scholar wrote the development of television as follows. In 1884, eight years after the invention of the telephone, German, Paul Nipkow, patented his ingenious disc, which made television possible. Nipkow's disc was to become the basis of early mechanical television systems. In 1897 in Strasbourg, Ferdinand Braun constructed the first cathode-ray oscilloscope, the basis of all present television receivers. In 1907, Boris Rosing at the Technological Institute in St. Petersburg proposed using Braun's tube to receive images. During the period 1923–4, Charles Francis Jenkins, who had contributed to the evolution of motion-picture projectors in the 1890s, experimented with the Nipkow disc. About the same time, but independently, John Logic Baird in Scotland was engaged in similar experiments. Baird and Jenkins shortly after, made demonstrations of their

systems in 1925, as did Ernst Alexanderson at the General Electric (GE) Company's headquarters in Schenectady. In 1927, Philo Farnsworth, an independent inventor, demonstrated the first complete electronic television system, based on his invention of the image-dissector tube. However, Zworykin, contested Farnsworth's patent, and only after long litigation did each receive basic patents on their systems (Salaberry, 2001).

These experiments came to preliminary fruition in 1927, when the presidential candidate, Herbert Hoover, appeared in an experimental telecast. In 1928, the first home TV was experimented. This was followed by a science-fiction drama, giving its audience a missile-eye's view of an attack on New York City. In 1929 the British Broadcasting Corporation (BBC) began an experimental, low-definition TV broadcast (McNeil, 1990). Then after, the use of television for social and political occasions was expanded in 1930s. For instance, Evans (2005) states that in 1936, the German Post Office attempted to televise the Eleventh Olympic Games. In the same year the BBC began the world's first high-definition TV broadcasting service and on September 1938 the first actual broadcast of a news event was telecasted as the British Prime Minister Neville Chamberlain arrived back from Munich. A year later, shortly before the start of World War II, 20,000 sets were in use in London. This success led David Sarnoff to start a television service in the US and it was thus in 1939 at the New York World Fair that an address by President Roosevelt launched television into US public domain. However, the development of television was interrupted during when a series of US governmental directives attempting to determine the best technical standards for national transmissions. World War II was also a further obstacle to developments in both Britain and the USA. During this war period, no sets were produced and while Britain turned off their transmitters, only six USA commercial stations televised a skeleton schedule of two to three hours daily(McNeil, 1990). Post-war telecasts resumed and TV sets went back on air. Three years after the war, by 1951, the number of sets was increased. Color broadcasting was fully operational in 1967 and television established itself as the outstanding mass communication of the twenty century. By 1990

in the developed world, 98% of homes had come to possess a television receiver (Watson and Hill, 2003, cited in Evans, 2005).

By comparison to developed countries, television as mass medium is a recent introduction in developing countries; television in the developing world has been still a technical gimmick and all of Africa, Asia and Latin America accounted for only 3% of the global television sets (Evans, 2005). According to Ojo(n.d), the establishment of Moroccan television station in 1954 marked the beginning of the television age in Africa. Algeria and Nigeria followed the suit in 1956 and 1959, respectively. While Kenya, Uganda and Senegal had television stations in the mid-1960s, Cameroon and several other African countries did not have television stations until 70s and early 80s. As Smith (1995) as cited in Evans (2005), the majority of countries in Africa seemed to have introduced this technological innovation during the 1960s. Ethiopia permitted Thomson Television International to set up a station in time for the coronation jubilee of Haile Silassie in 1964. Tanzania used a boom in the price of its main export commodity, cloves, to establish a TV station. The Islamic countries of Africa hotly debated the merit of the new medium and its introduction meet with varying degrees of resistance; restrict censorship and a "heavy dose of Koran readings". By the mid- 70s virtually every country in the developing world with a population of more than 10 million had introduce television. At present, virtually all African countries have either a national television or both national and private-run television services in operation (Ojo, n.d).

After years of experimentation, the 1950s began a period of tremendous interest in television as an instructional medium. It has been used for educational purposes for many years and throughout the world. The oldest and most established form of educational television is the programming transmitted by major public broadcasting organizations, in the form of open-access programs serving specific groups, such as preschoolers, enrichment programs for school-age children, and adults who wish to learn new skills or gain new knowledge (Wolff et al, n.d.). According to these scholars, in the

1970s, it was thought that television might help to "leapfrog" over problems of low-quality education in developing countries by providing high-quality, centralized instruction with receivers located in classrooms, especially at the secondary level. With support from international agencies, secondary instructional programs based on TV were developed in Côte d'Ivoire and El Salvador. For instance, in Cote d'Ivoire, Ojo states, ITV was used as an efficient tool for learning, the percentage of children in school increased from 54 percent in 1970 to 65 percent in 1976-77, and by the early 1980s, televised education was reaching 75 to 85 percent of the school pupils. And much of the feedback showed better results in national examination on such subjects as reading and writing. Given this earlier success in Cote d'Ivoire, Zambia, Nigeria and handful of other countries had used the medium for educational purposes. However, by late 1980s and 1990s, the golden hope of educational television in Africa has been dashed due to high-cost production, absence of technical-know-how, and dysfunctional technological state of TV production in the continent (Ojo). The Cote d'Ivoire's instructional television-based education was also interrupted as soon as external financing was discontinued (Wolff, et al, n.d.).

The higher significance of Instructional Television for developing countries is noted in so far as it helps to overcome the wider scope of educational problems facing the poor nations. It is supposed to be the better means of expanding equitable education across many regions. The medium has continued success and has grown rapidly in some countries. Thus, other countries experience may help for a better understanding as to how this new educational technology has to be properly exploited and thereby alleviate the problem of utilizing ITV effectively. Scholars, for instance, identifies the success of instructional television in some selected developing counties which have an extended history of the medium, such as, India, Brazil, Mexico and South Africa.

According to Evans (2005), in India, the Satellite Instructional Television Experiment (SITE) was initiated in 1969 after the agreement was signed

between India's Department of Atomic Energy and the National Aeronautics and Space Administration of the United States (NASA). The program was aiming at demonstrating how satellite technology could be used for mass communications in developing country context with a particular focus of providing instructions in the field of family planning, agriculture, education and teacher training. The program was 10 – 12 duration minutes and a limited amount of support material was made valuable in the form of wall charts and teachers' notes. The result of the program was found to be high.

The Brazil's instructional television program (*Telecurso*) was also successful. *Telecurso* has been aired from 1970 - 1985 and re-introduced in 1994(Wolff, et al, n.d). A private agency, Globo Television Network, was responsible for the first *Telecurso* and the 1990s new *Telecurso 2000.* The target audience of *Telecurso* was young adults who had left school before obtaining the required certificate. *Telecurso* created the opportunity for these young learners to follow the curricula via television at a designated institution under the supervisor of a teacher and with complementary written materials. *Telecurso 2000,* on the other hand, was a condensed version of a basic curriculum for distance education and combined videotaped classroom session and books. The course content focused on basic skills and a job-oriented education covering 15 minutes lectures. No teachers or classrooms were used as backdrop. Instead scenes in factories, offices, homes or city centers were screened (Wolff, et al, n.d; Sherestha, 1997 as cited in Evans, 2005).

Mexican government without external financing launched an instructional television called *Telesecundaria* in 1968 to promote education and literacy using television broadcasts. The program covered a wide range of topics prescribed for both primary and secondary schools. The recipients were small secondary schools with less than 100 pupils in remote and rural areas of the country. Lessons were transmitted live 6 hours a day (20 minutes viewing and 40 minutes discussion and follow-up activities). *Telesecundaria* teachers and supervisors also receive in-service training through televised programs that

are broadcast during the afternoons or on Saturdays. In addition, *Telesecundaria* is implementing a training program designed to update teachers on teaching techniques and materials (Evans, 2005; Wolff, et al, n.d). Studies on *Telesecundaria* revealed that the program has been successful and grown rapidly (Wolff, et al, n.d).

Alike India, Brazil and Mexico, South Africa has effectively used instructional television as a powerful learning resource. Several instructional television initiatives have been operational. *Tele Tuks Schools* is one of the successful instructional television programs in South Africa. It is aimed at senior learners aged 16-18 (Grade 11 and 12), who can watch 90-minutes lessons in key subjects e.g. Mathematics, Physical Science and English, four afternoon a week of the academic year. An average of 30 hours per academic subject is screened annually and the national core syllabus is the main guide to planning lesson content. The primary mode of content delivery during each *Tele Tuks* broadcast alternates between traditional "talking head" explanations and any visual material the presenter uses to clarify concepts. Opportunities are also given for learners to ask questions using a bi-directional audio communication telephonically at any time during a broadcast to which the presenter will then respond immediately (Evans, 2005). Significant results have been obtained from the initiative.

Today, most instructional television in the classroom takes place through videotape rather than live broadcasts, thanks to the invention of the video cassette recorder (VCR) and the video home system (VHS) tape format. It is also presently being replaced by digital recording and playback media including mini-digital videotape, hard disk recorders, and digital versatile discs (DVDs) (Farenga and Ness, 2005). Recently, the Interment and computer conferencing have augmented the traditional television delivery modes (Evans, 2005).

It should be remembered here that when TV was introduced as instructional tool, many researchers have placed more and more emphasis on the study of

faculty and student attitudes toward televised instruction. The reported surveys indicate that the majority of both groups do not favor total teaching by television (Livingston, 1968). Many of the earliest studies on instructional TV compared children who had access to the medium with those who did not (Corteen and Williams, 1986; Hornik, 1978) without examining particular programs or content type. For example, Stickell (1963) reviewed 250 comparisons of instructional television and conventional face-to-face instruction from 31 research reports. Overall, 75% of the studies showed no difference, with equal percentages favouring TV or face-to-face instruction. Chu and Schramm (1968) found that in 73% of studies there was no significant difference between traditional and television methods. Ayers (1972) also concluded that teachers rejected the idea that television destroyed the norm teacher-pupil relationship created by face-to-face instruction. He also reported that teachers did not perceive television as a threat to their employment and advancement. They saw the studio teacher as a possible source of help in improving the level of achievement of children. However, a study conducted by Bessent, Harris and Thomas (1968) revealed that prominent among the reasons given by teachers for using instructional television were that they were following orders or expectations of supervisors. Moreover, Schramm (1962) reviewed several studies on learning from television and concluded that under some conditions and used in some ways, instructional television can be highly effective and that the pertinent question is no longer whether a teachers can teach effectively on television, but rather how, when, for what subject, and with what articulation into classroom activities instructional television can most effectively used.

To conclude in Ojo's words, in spite of its shortcomings, there is still a place for instructional television in the African context if there are necessary resources to support the project. With a well structured objective plan, instructional television could be an avenue to bridge the widening gap between the urban and rural viewers in Africa.

2.6.3 The Nature of Instructional Television

There appear to be three main approaches to ICT taken by teachers according to UNESCO (2004). These are integrated approach (planning the use of ICT within the subject to enhance particular concepts and skills and improve students' attainment); enhancement approach (planning the use of an ICT resource which will enhance the existing topic through some aspect of the lessons and tasks); and complementary approach (using an ICT resource to empower the pupils' learning). In the integrated approach, students' learning is enhanced because they are confronted with challenges to their existing knowledge and given deeper insights into the subject being studied. The enhancement approach could improve students' learning through presenting knowledge in new ways. The complementary approach draws on the approach that suggests that learning can be enhanced by reducing the ordinary and repetitive aspects of tasks such as writing essays and homework by hand, freeing the learner to focus on more challenging and subject-focused tasks.

Broadcasting Instructional Television programs have also a wide range of structures and styles since its introduction as instructional tool. In relation to this, Bates (2001) explains that there is a broad continuum in educational broadcasts, from programs with no embedded style of use (enrichment programs), through programs explicitly designed for active teacher intervention (as teaching resource), and to programs which directly teach. According to Bates, each type requires a different structure. Some programs might include questions or activities for learners at different points in the program and might explicitly require pausing (and, therefore, need to be recorded).

In relation to the nature of instructional TV, Castlo and Gordon (1961:127) also state, "There are three main potential uses of instructional television: enrichment, cooperative teaching and total teaching." Moreover, Gibson (1970), states that instructional television is a multipurpose tool. Its functions

enhance according to the context in which it is used. The way in which television is used in schools essentially depends upon what functions it has in the school that employs it.

Furthermore, Olagunju (2008) identifies four types of instructional television, namely direct classroom teaching, supplementary-enrichment classroom teaching, pre-school instructional television, and formal adult education. To Olagunju, in the direct classroom teaching method (also known as 'total television teaching'), the television teacher is the only teacher; there is no teacher in the classroom. However, teachers' hand books and students' workbooks must accompany the programs for follow up activities. The major role of the second type is supplement to regular instruction in the classroom. Its general aim is to reinforce the content, skills or attitudes that teachers are already committed to impart to their students. The third type, pre-school instructional television, is non-formal which is intended for viewing by youngsters at home. The last one is formal in nature and has been limited to credit courses over local broadcasting facilities by some Open Universities.

Royal and Bradley (2005) state that instructional television students can experience their classes in one of two environments: the host site and remote site. The host-site student takes class at the institution usually with the instructor present. The remote site student observes and participates in classes from a site away from campus usually without any instructor present. Instructional television can also be either passive or interactive. Passive instructional television typically involves pre-produced programs which are distributed by video cassette or by video-based technologies such as broadcast, cable, or satellite. In contrast, interactive instructional television provides opportunities for viewer interaction, either with a live instructor or a participating student site. For example, two-way television with two-way audio allows all students to view and interact with the teacher. At the same time, cameras at remote sites allow the teacher to view all participating students. It is also possible to configure the system so that all student sites may view one another, according to EDC (2004).

The instructional television can also be in mixed (blended) mode. It attempts to combine the best features of the traditional classroom (conventional instruction) with the televised classroom (instructional television) to maximize the advantages and minimize the disadvantages of both.

All the aforementioned discussions show us Instructional Television (ITV) serves not only one aspect or a particular subject matter. It is used for different functions that we intend. It should be remembered here that ITV is not the end result by itself. It is a means for an end in the educational world.

2.6.4 Instructional Television in Ethiopia and the Plasma-channeled Instruction

As has been discussed, new initiatives have been made in Ethiopia to expand the use of Information and Communication Technology (ICT) in the county's education system. Instructional television is one of those initiatives. That is, realizing the power of television for educational purpose and increasing demand of audio-visual aids to facilitate the teaching/ learning process, the technology used as instructional tool in Ethiopia in 1965, a year after the introduction of television in the country. Television became the first technology for broadcasting educational programs using the facilities of the Ministry of Information (Tilson and Demiss ew, 2000; CEICT, 2011a). The program was transmitted as a center from the Educational Media Agency (EMA) no w called Center for Educational Information and Communication Technology (CEICT) of the Ministry of Education, which is found in the capital of the country. Specially, in 1967, the Center produced and transmitted programs in eight subjects for senior secondary schools and in five subjects for junior secondary schools with its own TV studio. Programs were developed for primary schools as well. The programs were aired to 35 schools in and around Addis Ababa. Later, this limited coverage was extended to 8 private and 55 government schools again in Addis Ababa (Gartley, 1974). However, the secondary school programs were interrupted in 1976 and the primary school programs stopped in 1980 due to the absence of a transmitter, it was not possible to use TV (Tilson and Demissew, 2000). In 1987, the

Educational Media Agency bought new color television production facilities and started preparing and transmitting TV programs in English, Mathematics, Science and Productive Technology for Grades 7 and 8 until 1998 (Sebsibe, 2000). As a result of the 1994's education policy, curricula were changed and new textbooks were prepared. In line with the new materials, other instructional television programs were produced and transmitted in the late 1990s and early 2000.

In September 2004, the Ministry of Education launched a new instructional television program known as 'plasma' with a wide coverage. The plasma-channeled instructions are delivered to government secondary schools in the country through a closed-circuit system using Very Small Aperture Terminal (VSAT) satellite dish with the collaboration of the Ethiopian Telecommunication Corporation (now called Ethio-telecom). The plasma lessons are broadcast from CEICT which is found in the center of the country, Addis Ababa. The program had been utilized from September 2004 – 2010(in fact, the transmission of English and Civics and Ethical Education was interrupted in September 2009) and resumed in September 2011 in a new form.

The plasma TV program in Ethiopia is an instructional television with one way communication channels, the students who watch the television were unable to interact with the plasma teacher. It is an integrated and comprehensive program providing a complete package of distance and in person support to students and teachers. It puts teachers and students on the screen; brings context and practical uses of the concepts taught; uses images and available clips extensively to illustrate and help students.

The program has been developed as a blended approach. It combines televised instructions with face-to-face instruction, originally with a 75% and 25% and currently with a 50% to 50% ratio of plasma lessons to face-to-face instruction. That is, the terminated plasma instruction covers 30 minutes of the total 40 minutes in a regular manner. The remaining 10 minutes are given for the classroom teacher (5 minutes for introduction of the lesson to be

transmitted and 5 minutes for recapping). The improved plasma instruction (started in September 2011), on the other hand, lasts for 20 minutes and gives the remaining 20 minutes for the classroom teacher based on selected contents.

The program with its 12 channels is aired from 8:02 a.m. to 05:00 p.m. for regular students and from 5:35 p.m. to 8:00 a.m. for evening classes in almost all of the government secondary schools throughout the country. The program is also broadcasted on Saturdays for grade 9 and 10 students from 8:00 a.m. to 12:15 p.m. (CEICT, 2011a). It is integrated into the whole academic year typically in conjunction with instructional print materials. The formation of the plasma-based instruction is summarized in Figure 2.1 below.

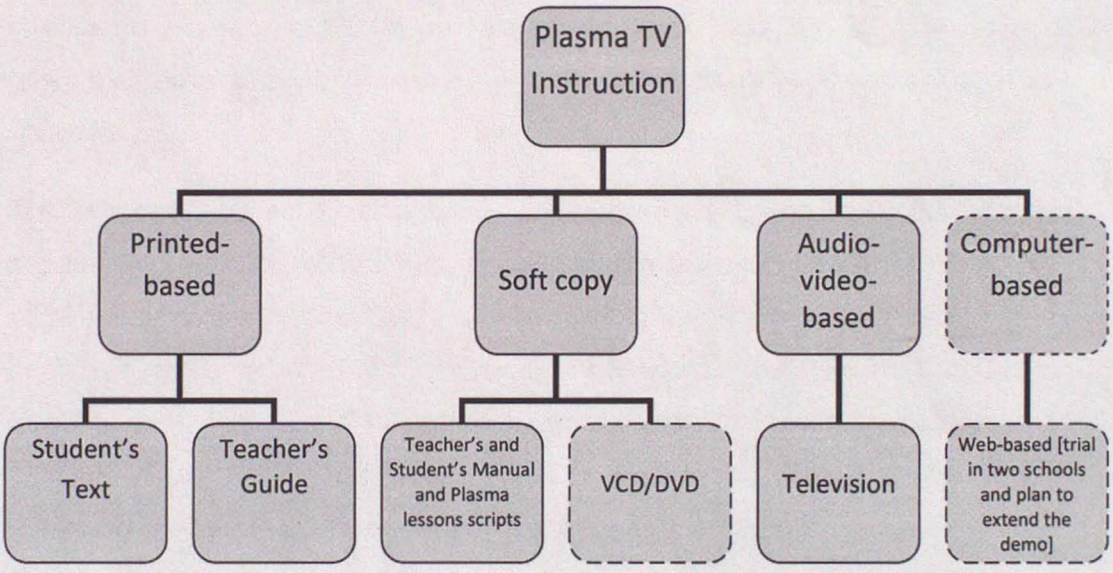


Figure: 2.1 Formation of the Plasma-channeled Instruction

As illustrated in the figure, the plasma TV instruction is combined audio-video classroom session and accompanied by printed and soft copy materials corresponding to the curricula. The primary mode of content delivery during each plasma broadcast alternates between visual-aural delivery and conventional explanations. Contents are delivered by a screen teacher in the form audio-video with the help of a classroom teacher monitoring and explanations. All contents are provided with complementary written materials,

student's book and teacher's guide. Moreover, opportunities are given for classroom teachers and learners to review the contents of plasma lessons in the form of soft copy materials such as CD-ROMs beforehand or after contents are delivered.

At present, according to CEICT (2011a), it is plan to make available programs using VCD and DVDs, and the digitization process is underway to computerize plasma lessons as indicated by the doted boxes. That is, the Center of Educational Information and Communication Technologies is starting computer assisted instruction based on demo projects. As a result, computers and the network thereof will be installed in all secondary schools.

2.6.5 Advantages and Disadvantages of Using Instructional TV

Though instructional technologies in general and ITV in particular have widely been used in language teaching-learning settings, different scholars have argued differently on their use. For instance, Blake (1999) argues that at first blush it might appear counterintuitive, ironic, or even futile to think that technologies can be of any assistance with an activity as socially grounded as that of learning a second /foreign language. After all, technologies are not human and cannot interact with anyone as that two human beings can. However, Reeves and Nass (1996) argue that people's interactions with computers, televisions, and news media are fundamentally social and natural, just like interactions in real life. They further mentioned that computers (from technologies) can make a significant contribution to the language learning process since the students themselves have the sense they are interacting with the computer in an authentic social manner. Again, almost all educationalists agree that increasing the amount and quality of the students' second/foreign language input is crucially necessary to language learning success. Technologies have enormous contribution to the language curriculum if practitioners are willing to become familiar enough with the technology to be able to incorporate it into the students' out-of-class

assessments (Blake, 1999). Moreover, technologies, if used wisely, can play a major role in providing language inputs and enhancing learners' contact with the target language.

Specifically, instructional television appears to hold considerable potential to significantly enhance the quality of instructional programs in schools. It can act as a powerful learning medium. In classroom teaching, it provides the capacity to extend classroom boundaries to outside worlds and events, it can provide concrete examples of abstract ideas and can encourage reflection and thinking on the part of students (Bates, 1988). This is because its visual aspect can help learners to grasp the power of images to convey meaning, as can be seen in the old adage that values a picture at a thousand times the value of a word. It can also offer information in multiple forms: not just images, but motion, sounds, and, at times, text.

In this respect, research has shown that multiple tracks of audio and visual information convey powerful learning benefits, as each source complements the other. Viewing is an active process, perhaps best thought of as an interactive experience between viewer and medium. In addition to responding to what they observe from the screen, viewers bring their own experiences and expectations to their viewing (EDC, 2004). Another research finding on the utilization of instructional TV revealed that 90% in Ontario and 91% in the United States find that television has a positive impact on education. The study also showed that over 90% of the teachers who used educational TV agree that the programs help students learn new information, spark students' interest and encourage classroom discussions in English language schools, according to Barnes (1997).

Regarding the significance of instructional television, scholars such as Schram (1977), Rilling and Dahlman (2001) and Spodork (2001) outline the following:

- distributing information to large masses of audience to models of excellence;

- equalizing educational opportunities;
- bringing the world of reality to classroom; and
- distributing all instructional media and school laboratories to every classroom.

Instructional TV, in teaching the English language has the following advantages. It can make speech practice meaningful by providing pictures in the usual mode and show the movements of articulator organs with great precision. It also motivates students to speak in a way like native speakers and presents language in context (Sherington, 1973). Hall (1986) also says that instructional TV can be used for teaching major skills like reading, writing, listening and sub-skills like vocabulary or grammar. In general, it plays a major role in providing language inputs and enhancing learners' contact with the target language.

However, though the proponents of instructional television underlined the importance of the technology, Instructional Television (ITV) has been target of many criticisms. Opponents argue that television provides a one-way communication flow from the broadcaster to the hearer or viewer. Thus, this eliminates a fundamental feature of spoken language; dialogue and interactivity (Barnes, 1997).

Regarding this, Sharma (1994) explains that there is no opportunity for discussion and the expression of students' opinion until after the show is over. Amare (1998) argues that when language is used in leaning the mind moves from words to pictures or images then to meaning. However, when TV is in use, the mind moves from pictures to meaning which is shorter visual distance. This results in less mental engagement. His logic implies that television discourages mental engagement. It reduces learner's thinking power since the visual distance of the learner is shorter. What is more, Hanson (2001) argues that TV is a means of communication. It does neither integrate brains nor feelings. Skolnik and Smith (1993) added that TV is an excellent medium for illustrating applications, describing context, and

generating interest. However, since it is not a truly interactive medium, it can neither be used to pinpoint what a student fails to understand nor remedy such misunderstandings.

Lack of technical and theoretical knowledge is another obstruction to the use of the televised instruction (Lee, 2000). That is, many teachers do not understand how to use the new technology. Furthermore, practitioners may not know about integrating these new means of learning (ITV) into an overall plan. This improper use of the technology can affect both the teacher and the learner negatively in their teaching-learning process.

Financial barriers, the cost of TV, maintenance (particularly of the most advanced equipment) are of the problems of using instructional TV. Regarding this, Herschbach (1994) firmly argues that new technologies are add-on expenses and will not, in many cases, lower the cost of providing educational services. In other words, cost barrier causes low usage of the technologies. This is to mean that although the ITV has expanded and diversified along with the technology of times, there is still much controversy as to how it should be presented and in what context it can best benefit the students to whom it is directed.

In a nutshell, despite some limitations, satellite TV programs can provide benefits such as lively visual images, development of autonomy in learners, and collaboration among learners at each location. It can also be used to create an environment that encourages communication and provides more varied communicative opportunities for students to utilize their language skills. Furthermore, this medium combines visual with both oral and written varieties of language. Therefore, using television as an instructional tool lies primarily in its versatility in comparison with other available instructional media since TV can combine motion picture film, slides, recordings, many types of graphics, plus the live teacher for instantaneous transmission to the classroom TV set without processing delay. It is a well-known fact that not a single teacher is capable of giving up-to-date and complete information in his/her own subject. But the televison-based system can fill this important gap

because it can provide access to different source of information. It can provide concepts as comprehensive as possible in different formats with different examples.

Note that in our country, engaging in televised language learning is a continuing challenge that requires time and commitment. As we are in the 21st century (the century of technology), we realize that technology as such is not the answer to all our problems. What really matters is how we use technology. It is understood that TV never substitutes teachers but it offers new opportunities for better language practice. It may actually make the process of language learning significantly richer and play a key role in the reform of a country's educational system. The next generation of students will feel a lot more confident with information technology than we may do. As a result, they will also be able to use the technology to communicate more effectively, practice language skills more thoroughly and solve language learning problems more easily.

2.7 Facilitating and Inhibiting Factors for Televised Instructions

The use of technologies of instruction, such as radio, TV, computer, etc., in language teaching-learning is well known. The major reason to use instructional technologies is to improve educational effectiveness, access and reduce costs. Like any instructional technologies, ITV, at the time of its creation was regarded as a means of increasing the quality of teaching by replacing the traditional classroom teacher. Today, though teachers (classroom teachers) remain at the heart of the education system, ITV still has a role in modern education (Hendry, 2003).

Instructional Television programs have a wide range of structures and styles, as has been discussed in 2.7.3 this chapter. These different broadcasting styles of Instructional Television (ITV) programs have impacts on students' learning, specially, if the styles are not suitable to their learning needs (Bate, 2001). That is, a program style that works well for one target group and for

particular learning objectives may be unsuitable for others like teaching methods (styles).

Different factors can also play a great role to facilitate or hinder the implementation of e-learning in general and ITV in particular. Usun (2004) concludes that political, economic, cultural, technological, human and administrative factors can play a major role in the application of information and communication technology instructions. Furthermore, according to Naimova (2008), time factors, teacher attitudes, software factors, availability issues, personal unfamiliarity with technologies, lack of training, attitudes of administrators, a teacher's level of education, years of experience, languages taught, school setting, type of school, social factors, cultural factors, and psychological (or human) factors have all been shown to affect the use of technology in the classroom. Andersson (2008) further lists 37 factors, which affect and facilitate e-learning, belonging to 8 different categories: student, teacher, institution, support, course, technology, costs and society, as illustrated underneath:

Table 2.1: Inhibiting and Facilitating Factors for e-learning

Students	Teacher
Motivation	Technological confidence
Conflicting priorities (time)	New learning style and confidence
Academic confidence	Motivation and commitment
Technological confidence	Qualification and competence
Learning style	Time
Gender	
Age	**Course**
	Curriculum design
Technology	Pedagogical model
Access	Subject content
Software and interface design	Teaching & Learning Activities
Costs	Flexibility of educational resources
Localization	Localization
	Availability of educational resources
Institution	
Knowledge management	**Support**
Training of teachers and staff	Support from faculty
	Social support of students
Costs	Support from employer
Technology	Support for faculty
Access rates	
Tuition, course fees	**Society**
Books	Role of teacher and student
Instructional economy and funding	Attitude on e-learning and IT
	Rules and regulations

***Source**: Andersson (2008:46)*

The abovementioned factors can be considered in the practice of the plasma-based ELT in Ethiopia. That is, to utilize televised ELT instructions efficiently and effectively, various elements can play important roles. The primary elements are learners. According to Littlewood (1981), they need to have the interest to learn the language: they must be motivated. Students must also be active participants; they should not be passive recipients during the broadcasting. Apart from the students, language teachers (screen and classroom teachers) play significant roles. Specifically, classroom teachers, in televised instructions, function as motivators, mediators, and designers of tasks rather than mere knowledge providers (Spodork, 2001). The classroom teachers are required to do these roles before, while or after the TV teachers' presentations. The availability of activities in the teaching materials and on the

TV screen is the other crucial element in televised language instructions. Moreover, the program cannot be effective unless support materials, such as satellite TV manual, students' textbooks, and teacher's guide are provided. These support materials can be provided by the school, parents or government. In addition, classroom settings, finance, acceptance of the technology, and technological and theoretical knowledge of the technology are the core elements to employ the telecasted language education program effectively. Based on the aforementioned inhibiting and factors, the following key indicators can also be considered for the effectiveness of practicing the plasma-based English language instruction among others.

2.8 Key Indicators for the Effectiveness of the Practice of Instructional Television

There are various indicators that contribute for the effectiveness of practising the plasma-based English language teaching. That is, in ideal practice, it is assumed that there are indicators for the meaningful practice of the program. Some of these indicators are defined in the program plan of the plasma TV instruction. Literature works also define indicators for the effective use of instructional technologies in classroom situations. Some of key indicators for the effectiveness of practising the plasma-channeled English language instruction are discussed in the following sections.

2.8.1 Teachers' Roles: The Classroom and Screen Teacher

The teacher is the single most significant and priceless element in the teaching-learning process. The concept of teaching is mostly unthinkable without the teacher. She/he plays a great role in the education world. While many things can be done to create a context for a good teaching, it is the teacher who ultimately determines the success of a program. A good teacher can often compensate for deficiencies in the curriculum, the materials or the resources he/she makes use of their teaching (Richards, n.d.). Braden (1961: 7), furthermore, states, "The vitality of any course relies on the personality, character, knowledge and training of the teacher." A similar view has been expressed by Brown and Yule (1983:28) as, "The teacher would be in the position of controlling a set of strategies which would help the student 'improve' her/his performance." The teacher needs to be in the confident position of possessing helpful tools that enable him/her to determine where the difficulty lies and help the student with it.

As Larsen-Freeman (1986:89) maintains, "The fear of students is for teachers to become 'language councilor'." Explicitly, by understanding students' fears and being sensitive to them, the teacher can help students to overcome their negative feelings and turn them into positive energy to their further learning. Allwright (1988:20) has strengthened this idea: "Teachers have a duty, perhaps to be inconsistent in the sense that they must adjust their treatment of any error to the needs of the moment." To word it more directly, in order to be consistent in giving the appropriate treatment of all learners at all times, teachers must run the risk of appearing inconsistent in their application of criteria of acceptability.

In language classes, the roles of a classroom teacher were perceived differently as per language theories and approaches proposed by language teaching specialist. As history of language teaching-learning depicts, a teacher was considered as merely language structures provider. Once he/she

was also taken as a primary source of compressible input in the target language. Later, in movement of communicative language teaching, the roles of a classroom teacher were regarded as facilitating the communication process between all participants in the classroom along with acting as an independent within the learning-teaching group as Richards and Rodgers (2001) underscore. In the post-methods era, the teacher is considered to be an autonomous. That is, according to Kumaravadivelu(2006), post-method pedagogy recognizes the teachers' prior knowledge as well as their potential to know not only how to teach but also know how to act autonomously within the academic and administrative constraints imposed by institutions, curricula, and textbooks. In such conditions, teachers can promote the ability of how to analyze and evaluate their own teaching acts, how to initiate change in their classroom, and how to monitor the effects of such changes (Wallace, 1991 cited in Kumaravadivelu, 2006).

In technology-based language instruction, the technology has revolutionalized what teachers do. It has transformed the role of the classroom teacher. He/she is taken as facilitator, monitor, guide and content/software developer. In line with this, Spodark (2001) states that in a multimedia-enhanced language teaching, a teacher (classroom teacher) is able to function more as motivator, mediator, and designer of tasks rather than mere knowledge provider. The teacher serves as a diagnostician, midwife, or coach. He/she is also required to recognize in motivating students' self-esteem and confidence, enhanced content area understanding, and more informed and empathic responses to world events as a result of using technology (McNabb, 2000).

In televised instruction, the classroom teacher serves as bridge between a televised teacher and the students. He or she is responsible to create classroom situation that promotes active participation of students using the medium. The classroom teacher facilitates and monitors the televised lessons. In so doing, the classroom teacher introduces the TV lessons that learners are going to be aired, encourages students to watch the programs carefully, assists learners whenever in need of help and recaps the televised

lessons. The classroom teacher is expected to engage actively throughout the transmission for the successful completion of the intended objectives of the lessons.

Along with the classroom teacher, the screen teacher plays a vital role for the effectiveness of using a televised instruction. In passive televised instruction, it is believed that learners rec ognize, organize, interpret and practice the screen teacher's overview presentations. Leaning occurs when lessons on the television are being observed and imitated by the viewers, or when viewers struggle to develop their cognitive skills based on lessons provided by the screen teacher. Aside from the academic content, particular teaching strategies have been found to be especially useful for enhancing a child's learning while viewing. It is, thus, expected that the TV teacher presents lessons in the highest professional standards, transmits to different areas and informs the classroom teacher and students what they should do before, during and after the lessons. It should be noted here that the TV teacher's ways of delivering the lessons, such as, pace of presentation, clarity of explanation, techniques of demonstration, teaching strategies and the like may have great impact on students' learning. Researches, for instance, disclosed a relationship between the pacing of television programming and task persistence; fast-paced programming can make children more impulsive, whereas slower paced programs have been shown to increase their persistence in everyday school activity (Friedrich and Stein, 1973). Producers of TV lesson need to consider these issues beforehand. Transmitter of the lessons can also customize pre-planned TV lesson through editing as required in line with the students' pace of learning. The classroom teachers can as well narrow those gaps by assisting the learners while they are in difficulties to follow TV lessons.

To conclude in the words of Kumaravadivelu (2003), the classroom teacher has been variously referred to as an artist and an architect; a scientist and a psychologist; a manager and a mentor; a controller and a counselor; a sage on the stage; a guide on the side; and more. There is merit in each of these

metaphors. Each of them captures the teacher's role partially but none of them fully. That is to say, classroom teachers enhance the learning value of television by planning ahead to consider instructional goals, preparing by previewing the program, setting clear expectations for students, encouraging student participation through setting the context before viewing, pausing during the program to ask key questions and flag priority topics promoting reflection through post-viewing discussion and assignments, and connecting post-viewing activities to hands on or real-world experiences (EDC, 2004). The classroom teachers are required to do all mentioned roles before, while or after the TV teachers' presentations. The TV teachers' ways of lesson delivery are also required to suite students' learning.

Bearing this in mind, in the plasma TV instruction in Ethiopia, it is expected that classroom teachers play the following roles before, during and after the transmission as discussed in training documents by EMA of MoE in Amharic language (MoE, 2006a; 2006b). Before the transmission, classroom teachers are expected to identify the lesson to be aired, and make all necessary preparations like getting ready lesson plans, teaching aids and laboratory equipments when necessary. They are also estimated to get students come up with the required teaching materials. Moreover, before the day's plasma lesson is transmitted, they introduce the topic and content of the lesson along with its objectives within five minutes. Encouraging students to follow plasma lessons attentively, watching the telecasted lessons, getting the students to work on activities as they are instructed by the screen teacher, taking their own notes regarding the contents which need further explanation, making effort to continue the teaching learning process in case the transmission is interrupted and not interfering the plasma teacher's presentations are some of the roles of the classroom teachers during the transmission. After the transmission (after the plasma lessons have been over), classroom teachers are expected to recap the lessons, to give additional explanations, to give counseling regarding the plasma programs and to introduce the topic and continent of the upcoming plasma lessons.

Besides the aforementioned roles, the classroom teacher is responsible for using properly satellite TV devices, such as the plasma TV screen, the remote control and the receiving decoders. He/she is also authorized to control improper use of the plasma TV by the students. In addition, it is the responsibility of the classroom teacher to plug in or unplug electric sockets, to lock or unlock the plasma TV in its metallic box, to report any irregularities encountered relating to the plasma instruction and to participate in the ICT clubs of the school (MoE, 2006b).

2.8.2 Students' Involvement

Teaching methods vary with the extent to which they involve the learners or with the roles the students and teachers assume during the teaching-learning process. At one end is the more teacher dominated method which involves the most direct way of transmitting knowledge (like the formal lecture) on to the learners. This is often labelled as the traditional or the teacher-centred method. The other extreme of teaching/learning methods is rather student focused approach where learning is taken as the responsibility of the students. Such approach is often referred to as the active learning the learner-centered method (Ambissa, 2009).

In language teaching-learning, the teacher was traditionally viewed as the expert of language. She/he controlled the whole language teaching-learning roles; he/she over took the roles of the students. Nowadays, however, it is believed that students play a much more active role in the learning process. They are not passive recipients; they are contributing to the planning and implementation of the curriculum. Successful learners are considered active learners. Active learners are aware that they are learning. That means, they recognize their strengths and weaknesses and have the ability to monitor their understanding of the content. It also means that they constantly make adjustments to support comprehension during the learning process. This active learning is referred to as meta-cognition, or an awareness of how one thinks (Wainwright, 2006). This implies that students are the most crucial

elements in the teaching-learning process. The idea of teaching is just unimaginable without the students.

In language classes, students' activ e involvements have also been given priority. Specially, the communicative approach emphasizes ways to increase student-talk and decreases teacher-talk. Post-method pedagogy also seeks to make the most use of learner investment and learner interest by giving them, to the extent feasible, a meaningful role in pedagogic decision making. Such type of pedagogy allows learners a role in pedagogic decision making by treating them as active and autonomous players (Kumaravadivelu, 2006).

More importantly, in televised instruction, students are expected to actively participate, to give attention to the concepts delivered by the screen teacher and to perform activities as they are instructed. In fact, students have no direct personal contact with the TV teacher. Even they do not communicate with the TV teacher especially if the instructional television is passive.

The plasma-channeled instruction demands the students' active involvements before-, while- and post- the transmission as listed in the training manuals of EMA (MoE, 2006a, 2006b). Before the transmission of the lessons, learners should follow the instruction given by the classroom teacher, give due attention to the explanation of the teacher, review the lesson they are going to learn, and bring with them all the necessary learning materials (textbook, pen, pencil, exercise book etc.). During the transmission of televised lessons, students must watch the television program silently and attentively, give response for questions requested by the television teacher, ask questions on unclear ideas and concepts, take short notes, and actively participate throughout the lessons. Above all, students are advised to concentrate greatly on the plasma teacher's presentations since they may miss the broadcasted lesson. Even they are encouraged not to waste their times by copying texts displayed on the plasma screen because plasma lessons are prepared in line with their text books (MoE, 2006a)

After the transmissions are over, students are expected to participate in the classroom by asking and answering questions, exchange ideas, views and opinions freely, and prepare notes from the television lesson, text books and other reference materials to stabilize plasma lessons.

In general, it is worthy that students should be aware of the purpose of the plasma lessons and should motivate themselves in order to gain the necessary knowledge. They are also required to play their roles before, while or after the TV presentations for the effectiveness of the plasma-based instruction.

2.8.3 The Instructional TV Contents/Activities

As elucidated above, language learning cannot be a passive process. The teacher cannot teach the language to the students any easier than the teacher can make or force the student to learn the language. However, the teacher can help the students in their learning of the language. This is because using the language is most important for communication- the learners must actively do it. The students need to make as much effort as they expect to get out of it. This means that students need to actively participate in different activities or exercise to develop their language abilities.

Researches on television's potential in language development appear to indicate the more likely relationship lies with the quality of content viewed rather than simply with the time spent in front of the set (Wainwright, 2006). Wainwright further states that producing television programming that encourages the social and cognitive development of children requires an understanding both of how children learn and also of how the non-interactive content of broadcast television can facilitate this learning. For successful learning to take places, developers of instructional television should bear in mind whether or not contents capture the attention of viewers and keep them cognitively engaged throughout. As Getachew(2003) recommends, designers need to take into account important aspects of the learners, such as, age,

experience, interest, educational level and so forth when designing the content of ITV programs. This is to mean that the lesson should be prepared in accordance with the age and maturity level of students in order to the students comprehend and get satisfaction from the content. To increase the worth or authenticity of a lesson, a television program must link it to the child's world or explain why doing the task is important, what skills it is designed to teach (Stipek, 1988 as cited in Wainwright, 2006). The most meaningful and intrinsically motivating activities are those that keep in mind qualities, such as activate prior knowledge by showing things learners have shown before; embed learning in everyday familiar routines; make locations one with which a learner would be familiar; and make the viewer aware of what they are learning(Wainwright, 2006). In relation to this, (Wright and Huston, 1984 as cited in Wainwright, 2006), mention that content that is appealing to child viewers offers onscreen characters that carry out mental activities for the viewer, model activities (e.g., carrying out the steps for completion), and suggest the steps the viewers can take to carry out the activity themselves. The ITV program contents are also supposed to consider the instructional objectives of the syllabus which are draw from the learners' needs (Getachew, 2003).

This is to mean that the contents of instructional television need to be designed considering their relevance for the cognitive development of learners and their motivational power of learning. They are also developed in conjunction with the syllabus and instructional print materials. To this end, the contents of plasma television lessons in Ethiopia are all in all based on the curriculum. They strictly follow the formal syllabus and cross check the learning and teaching materials to present every lesson under each chapter by television (FDRE, 2004; MoE, 2006a; 2006b; CEICT, 2011a). The plasma-channeled English language has also been organized based on the syllabus and the text book. Due consideration has been given to the attainment of the English language learning objectives stated in the syllabus. That is, the English syllabus for secondary school education is aiming at the development

of students' four language skills and linguistics competencies. The new syllabus specially is based on minimum learning competencies that all the students to have reached within each topic at the end of each grade. The activities are also designed to encourage students' natural curiosity and appetite for discovery together with enjoyment of learning through debates, presentations, surveys, role-plays, stories, projects and research activities appropriate to their age (MoE, 2008b). In line with these activities, the contents of the plasma-based English language instruction have been prepared.

2.8.4 Support Services and Facilities

Besides the nature of activities and roles of key practitioners, it is believed that instructional TV programs cannot be effective unless support services are provided. Schools in which utilize instructional TV need to be provided with the necessary support services such as, supervision (inspection), training, maintenance, experience share and the like from implementing bodies (broadcasters) and/or associate organizations (regional, zonal or woredal bodies). School principals basically need to facilitate these services to reach to front line practitioners (teachers and learners) and strive to provide them with the required support materials like satellite TV program manual, students' textbooks, teacher's guide, reference books, and audio and video.

In relation to this, Sife, Lwoga and Sanga(2007) explain that administrative and technical support services are critical to the successful integration of ICTs into teaching and learning processes. That is, administrators can provide the conditions that are needed, such as ICT policy, incentives and resources. The commitment and interest of the top management and other leaders at every level is the most critical factor for successful implementation of ICTs. Technical support like installation, operation, maintenance, network administration and security is also an important part of the implementation and integration of ICT in education system. As Hall (2010) maintains, adequate technical support is ensure that equipment is largely serviceable with procedures of preventative maintenance and timely repair in place. It is

important that schools can keep a high rate of operability of their technology with the minimum disruption to learning and teaching. In ITV environments, for instance, poor audio quality is one of the major technical problems that affects student learning. Moreover, when schools had problems with receiving transmission, it can cause a long duration of "down time" in remote sites which affect student attitude and motivation. In order to minimize such problems, each local site should have a separate technical support person other than facilitators (Kobayashi, 2008).

Besides administrative and technical support services, broadcasters can facilitate teaching with television by making their program options more flexible, more aligned with core curricula, and more supported by other learning materials and resources. They can endow with high quality professional development for teachers which provide comprehensive guidance for teachers on effective classroom integration of multimedia (EDC, 2004). Professional support services broadcasters can offer include workshops for educators on effective and innovative utilization of the technology in the classroom; distribution of ITV support materials like flyers and teacher's guides; design, installation, and maintenance of TV reception and distribution systems; and advice on proper care of audio-visual equipment.

Self-access centers (SACs) can also be arranged in schools which enable teachers and students to review broadcasted and/or will be broadcasted lessons. The SACs can consist of a number of resources in the form of text, audio, video and audio-video. As Reinders and Lázaro(2008) underscore, self-access centers are often said to be technology heavy environments and their role in providing flexible opportunities for individualized learning may make them particularly suited to the practical application and development of new technologies.

In the plasma-channeled instruction in Ethiopia, it is expected that the Center for Educational Information Communication Technology (the former

Educational Media Agency) gives supportive services like preparing implementation guidelines, providing trainings on the utilization of the programs, setting and distributing time tables, preparing and transmitting awareness creation programs, evaluating the overall implementation of the programs and making the necessary arrangements. It is also expected that the Center plays its roles by digitizing the televised programs and making available to students and teachers on its website, and striving to establish ICT units, desks, and clubs at regional, woredal and school levels respectively. Moreover, CEICT's collaborating organization, Ethio-telecom, provides major technical support like installation, operation, maintenance, network administration and security of the programs. Regional education bureaus are also expected to give supportive services like distributing the necessary materials timely, fulfilling the required human resources and materials for effective implementation of the programs at woredal and school level, allocating budget for ICT annually, hiring technicians for schools, facilitating exchange of experiences on the utilization of the programs at woreda level, and following up the effective practices of the programs. Besides, Woreda educational offices provide supportive services, such as, distributing all materials to the schools, supervising the implementation of the programs at school level, facilitating exchange of experiences on the utilization of the programs at school level, and designing strategies to maximize the society's awareness towards the relevance of the satellite television instruction. What is more, school directors and administrators are expected to give supports like providing teaching materials to students and teachers, taking care of the satellite TV receiving devices, arranging ICT rooms, and monitoring the overall effective implementation of the programs in their schools (MoE, 2006a; MoE, 2006b).

Above all, classroom teachers are expected to give the necessary support to students while the plasma-channeled instruction is underway. In order to put into practice the plasma TV instruction as required, the classroom teachers are also required to have technological pedagogical content knowledge as discuss in detail below.

2.8.5 The Technological Pedagogical Content Knowledge

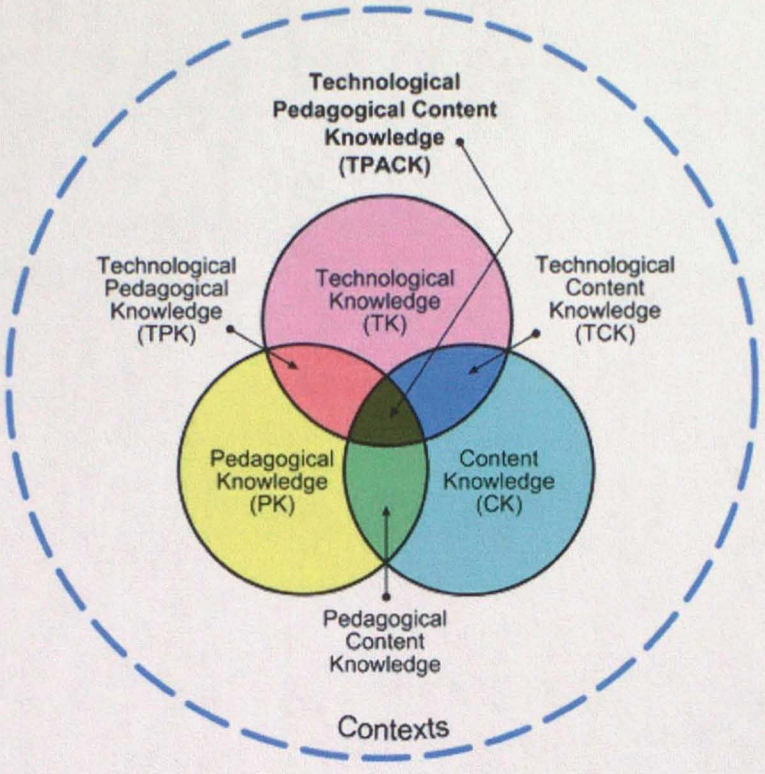
Technological Pedagogical Content Knowledge (TPCK) was introduced to the education world as a theoretical framework for understanding teacher knowledge required for effective technology integration (Mishra and Koehler, 2006). It is a framework to understand and describe the kinds of knowledge needed by a teacher for effective pedagogical practice in a technology enhanced learning environment. The TPCK framework acronym was renamed TPACK (pronounced "tee-pack") for the purpose of making it easier to remember and to form a more integrated whole for the three kinds of knowledge addressed: technology, pedagogy, and content (Thompson and Mishra, 2007–2008).

The idea of TPACK was originated from Shulman's (1986) pedagogical content knowledge (PCK) (Mishra and Koehler, 2006; Cox, 2008; Schmidt et al, 2009). To be precise, in 1986, Shulman proposed the idea of pedagogical content knowledge for teacher education instead of offering content knowledge and pedagogical knowledge separately. This scholar argues that teaching content and pedagogy as two separate entities is as good teacher education requires a complex integration and balance of the two.

As Cox (2008) wrote, the concept of pedagogical content knowledge had both theoretical and political origins. Though Shulman felt a need to demonstrate the importance of subject matter knowledge in training teachers, there were external entities who believed that teacher training was unnecessary and that anyone with a college degree could be an educator. The implication of this belief was that teacher knowledge was no different than practitioner

knowledge. Thus, the pressure to demonstrate the existence of specialized, professional knowledge in teaching was intense. When the framework was first introduced, pedagogical content knowledge was considered a sub-category of content knowledge. Later the term was considered as an amalgamation of one's knowledge of content and general pedagogical knowledge in a given context (Grossman, 1990 cited in Cox, 2008).

The TPACK framework builds on Shulman's construct of Pedagogical Content Knowledge (PCK) to include technology knowledge as situated within content and pedagogical knowledge (Schmidt et al, 2009). The introduction of instructional technology in the teaching learning environment breeds the notion. It connotes the integration of instructional technologies in the education world. The proponents of the framework argue that effective technology integration for teaching specific content or subject matter requires understanding and negotiating the relationships between three components: technology, pedagogy, and content. The framework incorporates the relationships and the complexities between all these three basic components of knowledge. TPACK does not consider these three key elements in isolation, but rather in the complex relationships in the system they define, as Jimoyiannis (2010) asserts. At the intersection of the three knowledge types, seven components are included in the TPACK framework as illustrated underneath.



***Source**: http://www.tpack.org/*

Figure 2.2: The components of the TPACK framework

As illustrated in the figure, the three circles (content, pedagogy and technology) overlap to lead to four more kinds of interrelated knowledge. Three areas of knowledge constitute the core of this framework.

Even though TPACK framework recognizes the intersection of these three constitutional elements of contemporary learning environments, it goes beyond seeing these three knowledge bases in isolation. It emphasizes the connections and the complex relationships between those dimensions of knowledge (constitutional elements) while it defines three new areas of knowledge, namely Pedagogical Content Knowledge (PCK), Technological Content Knowledge (TCK) and Technological Pedagogical Knowledge (TPK). All these form the conceptual framework of Technological Pedagogical Content Knowledge (TPACK), and considered within a particular contextual framework (Mishra and Koehler, 2006; Cox, 2008; Schmidt et al, 2009; Jimoyiannis, 2010). A brief description of each element is discussed below.

2.8.5.1 Technology Knowledge (TK)

Technology knowledge refers to the knowledge about various technologies, ranging from low-tech technologies such as pencil and paper to digital technologies such as the Internet, digital video, interactive whiteboards, and software programs (Schmidt et al, 2009). It is knowledge of technology within the context of technology integration in schools. TK stands for one's ability to use or manipulate instructional technologies for instructional purposes. This involves, as to Mishra and Koehler (2006), the skills required to operate particular technologies. In the case of digital technologies, this includes knowledge of operating systems and computer hardware, and the ability to use standard sets of software tools such as word processors, spreadsheets, browsers, and e-mail.

2.8.5.2 Content Knowledge (CK)

Content knowledge is the knowledge about actual subject matter that is to be learned or taught (Mishra and Koehler, 2006; Tesfaye, 2008; Schmidt et al, 2009). Teachers must know about the content they are going to teach and how the nature of knowledge is different for various content areas. It may also include knowledge of concepts, theories, conceptual frameworks as well as knowledge about accepted ways of developing knowledge (Shulman, 1986). CK refers to a person's understanding of the concepts related to a specific academic discipline (Cox, 2008). For example, a secondary English language teacher is expected to know and understand the subjects that he/she teaches including knowledge of the grammatical aspects of the subject, exponents to express language functions, central facts and theories of the language and the like.

2.8.5.3 Pedagogical Knowledge (PK)

Pedagogical Knowledge (PK) refers to basic, generalizable teaching strategies. It includes generic knowledge about how students learn, teaching approaches, methods of assessment and knowledge of different theories about learning (Harris, Mishra and Koehler, 2009; Shulman, 1986), and it is a combination of many components including classroom management and organization, instructional models and strategies, and classroom communication and discourse(Cox, 2008). That is to say, PK includes knowledge about techniques or methods to be employed in the classroom, knowledge about how students acquire knowledge and how they can be evaluated.

2.8.5.4 Pedagogical Content Knowledge (PCK)

Pedagogical content knowledge refers to the content knowledge that deals with the teaching process which combines pedagogy and content effectively (Shulman, 1986). PCK interweaves pedagogy and content. It signifies one's ability to combine teaching methods (PK) and curricular understanding (CK) with knowledge about learners and learning. Pedagogical content knowledge is different for various content areas, as it blends both content and pedagogy with the goal being to develop better teaching practices in the content areas (Mishra and Koehler, 2006). This knowledge includes knowing what teaching approaches fit the content, and likewise, knowing how elements of the content can be arranged for better teaching. For instance, the PCK of language teaching may include language teaching methods and approaches, knowledge of linguistics components, knowledge of what makes those components difficult or easy to learn, knowledge of students' cognitive difficulties to acquire/learn language skills, and so forth.

2.8.5.5 Technological Content Knowledge (TCK)

Technological content knowledge refers to knowledge about how technology may be used to provide new ways of teaching content. TCK is the manner in which technology and content are reciprocally related (Mishra and Koehler, 2006); it is the knowledge of pedagogical strategies and the ability to apply those strategies for use of technologies (Akkoç, Bingolbali and Ozmantar, 2008). It suggests that teachers understand that, by using a specific technology, they can change the way learners practice and understand concepts in a specific content area (Harris, Mishra and Koehler, 2009). The TCK in language teaching incorporates issues of how educational technologies are used to provide new ways of teaching language skills and elements.

2.8.5.6 Technological Pedagogical Knowledge (TPK)

Technological pedagogical knowledge refers to the affordances and constraints of technology as an enabler of different teaching approaches (Mishra and Koehler, 2006). TPK denotes knowing how teaching might change as the result of using particular technologies. It refers to the knowledge of how technology can create new representations for specific content. It suggests that teachers understand that, by using a specific technology, they can change the way learners practice and understand concepts in a specific content area (Schmidt et al, 2009). Cox (2008), moreover, mentions that TPK refers to a general understanding of the application of technology in education without reference to a specific content. It also includes the ability to creatively use available technology tools in a pedagogical context. For example, online collaboration tools may facilitate social learning for geographically separated learners.

2.8.5.7 Technological Pedagogical Content Knowledge (TPACK)

TPACK refers to the complex interrelationship between a teacher's technology use, instructional methods, and understanding of the subject matter (Mishra and Koehler, 2006). In other words, teachers who possess TPACK think about and use technology as a part and enhancement of their pedagogical methods in teaching content. It comprises the knowledge and understanding of the interplay between CK, PK and TK when using technology for teaching and learning. As was said, it is an incorporation of technological pedagogical content knowledge of any technological based instruction. In relation to this, Koehler and Mishra (2006) argue that true technology integration demands understanding and negotiating the relationships between these three components of knowledge. Jimoyiannis (2010) asserts that good teaching is not simply adding technology to the existing teaching and content domain. Rather, the introduction of technology causes the representation of new concepts and requires developing sensitivity to the dynamic, transactional relationship between all three components suggested by the TPACK framework.

TPACK is not a simple combination of three independent domains; rather, content, pedagogy, and technology are interdependent, each one affecting the others (Harris et al., 2007 cited in Cox, 2008). The choice of content affects the pedagogical goals and methods as well as the technologies used; the technology used comes with certain limitations, requirements, or features that may affect which content is covered or how it will be taught (Cox, 2008). Understanding how to balance all three domains in a way that is most effective for learners is a difficult skill to acquire (Bull et al., 2007 cited in Cox, 2008). True TPACK is particularly difficult to master first because of the complex relationships and also because of the continually changing nature of technology, making every technology integration problem a unique one (Mishra and Koehler, 2007).

Researchers have made various attempts at measuring the development of TPACK in learning technologies by design course experiences. Predominant in the methods of these studies is the use of document analysis–using projects, progress reports, recorded interviews, papers, observation field notes, etc., to monitor students' progress (Cox, 2008). Moreover, as TPACK is a new phenomenon and as it is difficult to define the boundaries of the different TPACK knowledge areas, research in this field is still ongoing.

Nowadays, teacher educators are beginning to stress the need for TPACK development in teacher preparation programs. Thompson (2005) indicates that TPACK will have a profound impact on pre-service teacher education. Harris, Mishra and Koehler(2009) also assert that using TPACK as a framework for measuring teaching knowledge could potentially have an impact on the type of training and professional development experiences that are designed for both pre-service and in-service teachers. Hence, there is a continual need to rethink our preparation practices in the teacher education field and propose new strategies that better prepare teachers to effectively integrate technology into their teaching.

The idea of TPACK has a good implication for the plasma-channeled English language instruction. As there is something special and different about teaching with technology than without technology, in preparing teachers for secondary schools of Ethiopia, a complete approach be focused on the connections between technology, content and pedagogy. Moreover, it is true that how the plasma-based instruction is used to help students to learn English language is different from how the medium is used to help students to learn other subjects. For instance, the plasma-based instruction is differently used to help students learn English than the plasma-based instruction is used to help students learn math. Therefore, English language teachers need to know how to use the plasma-based instruction to teach English along with their knowledge of the subject matter and pedagogy.

2.9 Theories of Language Learning and Instructional Television

Language teaching–learning innovations can be characterized in terms of movements of theories of language teaching-learning (e.g.Behaviorists, 'Cognitivism' and Constructivist). The theories can also be seen with the integration of technology application in general, and television instruction in particular, as discussed below.

For the behaviorist, language learning is a habit-associated activity, which can be learned explicitly through repetition and memory. In Information Communication Technology (ICT) terms, particularly televised education, applications in the behaviorist tradition tend to follow an instructional pattern; learning is broken down into a sequential series of small steps, each covering a particular skill (Pachler, 1999). This can be done in the instructional television-based language education. It can offer some input that the learners drill and practise language skills.

The 'behaviorists' view of language learning was criticized and rejected by the advocators of 'cognitivism' in the early 1960s, a growing consensus was reached that 'behaviouristic' theories of language learning were inadequate (Harmer, 1991; Kern and Warshcauer, 2000; Richards and Rodgers, 2001). They were inadequate because it was believed that language was a combination of in-built pre-programmed mental functions and outside stimulus. Learning was not a habit that could be drilled but required cognitive processing and mental effort. That is, cognitive theories of learning consider the learner no longer as passive recipient but as mentally active participant in the learning process. In relation to this, McLaughlin (1987) says that second language is a process of building up a cognitive model of the target language through practice and experience until learners can make use of their knowledge automatically without even being aware of doing so. In such views, language learners construct a mental model of a language system, based not on habit formation but rather on innate cognitive knowledge in

interaction with comprehensible, meaningful language (Chomsky, 1986 cited in Stoyanov, 2009). For example, cognitive approaches in communicative language teaching are taken into account the view that learning a language is an individual psycholinguistic act. Learners' output (i.e., what they say or write), is beneficial primary because it helps make input (i.e., what they hear or read) more comprehensible so that the learners can construct their own cognitive models of the language (Stoyanov, 2009).

Pachler (1999) argues that theories of cognitive psychology allow us to understand the impact of technological applications and tools that help users to process information, engage them in abstract thinking, allow them to make the knowledge construction processes transparent, and help them to build classification systems. There is also some consensus on the application of this in technology-based language learning. Technologies which support a cognitive approach to language acquisition are those which allow learners maximum opportunity to be exposed to language in meaningful context and to construct their own knowledge. Using instructional TV, learners can construct new knowledge; learners engage in critical thinking and develop their language skills.

Today's dominant theory of learning, constructivism, underlines the idea that learning occurs when learners actively try to make sense of material presented to them. They learn if they actively create their own knowledge (active learning), apply and coordinate their own cognitive process. Mayer (2003) explains that educational researchers have devoted a lot of energy to search for the best of constructivism ranging from cognitive constructivism (learning as knowledge construction), to social constructivism (learning as socio-cultural event) and to radical constructivism (learning as based on outside world).

In brief, based on review of theories of cognitive constructivism, it may be said that there are three basic processes involved in constructivist learning: selecting relevant information (including relevant visual and verbal

information), organizing the incoming information into a coherent structure (including visual and verbal models), and integrating various sources of the incoming information with each other and with existing knowledge (Mayer, 1996). Social constructivism emphases the dynamic nature of the interplay between teachers, learners and tasks, and provides a view of learning as arising from interaction with others (Williams and Burden, 1997). This implies that learning never takes place in isolation. Language learning in this respect is viewed not just in terms of changes in individuals' cognitive structures but also in terms of social structure of learners' discourse and activity, as Crook (1994) explains. Radical constructivism concerns the degree to which knowledge construction is based on outside world (Mayer, 2003). According to this view, knowledge is constructed entirely out of social negotiations. Radical constructivism can be criticized for its relativistic view that all knowledge representations are equally valid, instruction is impossible because instructional communications mean entirely different things to different people, and teachers can never determine what the students know (Philips, 1998).

In summary, Mayer (2003) explains that the two viable versions of constructivism are individually mediated cognitive constructivism and socially mediated cognitive constructivism (which is sometimes mistakenly called social constructivism). This is to mean that constructivism rests on the premise how knowledge is constructed within the mind of individual learners. Learners can construct knowledge in an individual context (through reading, for example), and in a social context (through a group discussion and negotiation).

According to Jr and Perez (2003) and Heinich et al (1996), the concept of constructivist learning has important implications for instructional technology. That is to say, constructivist learning seeks to activate cognitive processing that leads to understanding; it fosters constructive cognitive activity in the learner. As the famous proverb 'Do not give your students fish, but teach them how to fish,' it helps learners how to construct their various language skills.

Under this conception of learning, instructional technology should serve as a cognitive guide to help learners on authentic academic tasks.

To constructivists, using instructional technologies, the teacher plays the role of task designer and knowledge facilitator. The teacher creates the learning environment in such a way as to enable the construction of new knowledge. The instructional technology also serves as an input which enables the learner's knowledge construction.

That is, perhaps the greatest difference among theories of learning is that behaviorism and cognitive support the practice of analyzing a task and breaking it down into manageable chunks, established objectives, and measuring performance based on those objectives, where as constructivism promotes a more open-ended learning which is not easily measured and may not be the same for each teacher and each learner (Mergel, 1998). Constructivism builds upon behaviorism and congnitivism in the sense that it accepts multiple perspectives and maintains that learning is a personal interaction with the world. It is believed in this study that behavioral strategies can be part of a constructivist learning situation, if learners choose and find that type of learning suitable to their experiences and learning style. Cognitive approaches have also a place in constructivism since constructivism recognizes the concept of mental building upon prior knowledge and experience.

The constructivist view of learning is mainly considered throughout this study. This is because the program with which this study deals seems to be designed to use the technology, Instructional Television (ITV), as an input for learners' knowledge construction. That is, the plasma-based English language lessons in Ethiopia are organized around tasks to be performed in the target language. It integrates group activities, pair work and individual exercises. Students are provided with different inputs (explanations and tasks) by the plasma presenter, which assist them for their knowledge construction. Students interpret these inputs in ways that are meaningful and personal to

them as individual mediators and selecting relevant information (visual and verbal), organizing the incoming information into a coherent structure and integrating various sources of the incoming information. The explanations and tasks, therefore, are considered as interface between the classroom teacher and learners. The classroom teacher and learners also interact with each other and with existing knowledge. The primary function of the technology is to create and maintain collaboration, problem-solving environment where students are allowed to construct their own knowledge. The plasma presenter serves as a language input provider and the classroom teacher acts as facilitator, guide, mediator, and language input provider for the students' English language knowledge construction. Learners are expected to recognize, organize, interpret and practice the plasma teacher's overview presentations.

2.10 The Plasma-channeled English Language Instruction

As was discussed in the background of this study, before the plasma TV instruction was launched in September 2004, six subjects namely, English, Mathematics, Biology, Chemistry, Physics and Civics and Ethical Education had been identified. Later in 2006, three other school subjects (Technical Drawing, General Business and Economics) were also added for preparatory students.

The developers of plasma program justified that the plasma-channeled English language instruction has been selected as part of the program because of the language usage as medium of instruction. It is also believed that the technology helps student to develop their English language skills and language elements than they are taught using the traditional face-to-face instruction since the program is presented by native speakers in standard way (MoE, 2006b).

Like other plasma lessons, the plasma-channeled English language instruction is organized in accordance with the syllabus of secondary school. During the debut of the program in September 2004, a total of 582 programs were prepared and transmitted (170 for grade 9; 140 for grade 10; 136 for grade 11; and 136 for grade 12). After five years transmission, the program was interrupted in September 2009 and a total of 231 programs (62 for grade 9; 48 for grade 10; 73 for grade 11; 48 for grade 12) have been resumed in a new form since September 2011. The terminated and new plasma-based English language instruction coverage across units is presented in the table below.

Table 2.2: The Terminated and Improved Ethiopian Secondary School English Language Instruction Period Allocations across Units

Grade Level	Total Number of Units		Total Periods Allocation		Total Periods covered by the Plasma	
	Old	New	Old	New	Old	New
Grade 9	14	12	170	136	170	62
Grade 10	14	12	170	136	140	48
Grade 11	14	12	170	204	136	73
Grade 12	9	12	150	204	136	48

***Source**: The Syllabi of Grades 9-12 English language MoE, 2008b), and Training Manuals on Plasma Television Programs (MoE, 2006b:22)*

As shown in the table above, the terminated plasma English programs covered most of the lessons while the new plasma-based English programs have covered few lessons. The terminated programs were presented in a regular way (5 periods for grades 9 and 10 and 4 periods for grades 11 and 12 per week). However, the new televised lessons have been offered based on some selected contents; non-plasma and plasma lessons were identified, and the programs are transmitted in that fashion. For example, the plasma and non-plasma English periods allocations for preparatory students are illustrated below.

Table 2.3: Plasma and Non-plasma English Periods Allocation for Preparatory Students

Unit	Periods Allocation					
	Grade 11			Grade 12		
	Non-plasma	Plasma	Total	Non-plasma	Plasma	Total
1	10	6	16	12	4	16
2	10	6	16	12	4	16
3	10	6	16	12	4	16
4	10	6	16	12	4	16
5	10	6	16	12	4	16
6	10	6	16	12	4	16
7	10	6	16	12	4	16
8	10	6	16	12	4	16
9	10	6	16	12	4	16
10	10	6	16	12	4	16
11	9	7	16	12	4	16
12	10	6	16	12	4	16
Total	**119**	**73**	**192**	**144**	**48**	**192**

***Source**: The New Syllabi of Grades 11 and 12(MoE, 2008b) and English Language Satellite Televisions Program Specifications (CEICT, 2011b)*

The new syllabi of grades 11 and 12 depicts that each unit is divided into 16 periods based on a 34 week school year with the assumption of 6 periods of English per week. There is also 12 periods in total for revision for each grade level. This makes a total of 204 periods. Regular, short slots of language learning during the week are assumed likely to be more effective than a longer, more concentrated slot once a week (MoE, 2008b).

As shown in the table above, most of the lessons are non-plasma. Lessons covered by the plasma are accounted less; 73 periods for grade 11 and 48 periods for grade 12 are allocated. The plasma periods comprise selected contents from each unit. The selection covers the language skills and learning strategies in line with instructional print materials.

The new plasma-channeled English lessons are organized around lessons presented by a plasma teacher for 20 minutes and the remaining twenty minutes are covered by the classroom teacher. That is, the lessons are started with the plasma presenter. And the classroom teacher and students

listen to the presentations and perform different activities as they are instructed (the teacher facilities and/or monitors; the students perform tasks) for 20 minutes. Following the plasma presenter's recapping and detail instructions what to do in the remaining 20 minutes, the transmission is over and the text book, blackboard and the classroom teacher take their turn.

In sum, the plasma-channeled English language instruction is believed to be a good pedagogical tool that helps students' English language development. It is delivered in a blended approach; lessons are delivered using instructional technology (plasma TV) and conventional instruction (classroom teacher).

CHAPTER THREE

CONCEPTUAL FRAMEWORK AND RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the conceptual framework and methodological approaches of the present study. According to Nachmias and Nachmais(1992), a conceptual frame is a systematic placing of descriptive categories into a broad structure of explicit and assumed proportions. While these structures are reputedly general and universal, it is necessary that they should be suited to a particular problem under investigation (Loubser, 1988). Moreover, such frames need to allow for selecting appropriate methods and techniques of data collection and match the social context in which an investigation takes place. One way of adopting a framework to a research perspective involves reviewing the literature (Dane, 1990). In this respect, the preceding chapter–review of related literature–has provided information through which the present problem of study has been researched into and understood. It has also provided a direction for construction of research instruments and the areas to which attention has to be paid during the process of investigation. There are different perspectives for understanding the effective practice and development of the televised instruction. These are discussed underneath.

3.2 Conceptual Framework of the Study

3.2.1 Th eoretical Framework of the Plasma Mode of Instruction

Chen (2005) suggested that the conceptual framework for program theory should make clear how components of the action model are interrelated in order to activate the transformation process of the change model. A program starts with the acquisition of resources from the environment which provide the program with necessary resources and support (in other words, its inputs), and the development of an action model. The action model can be implemented in order to activate the intended change. It is the operation of the change model that leads to the attainment of program goals. Whatever effect the program has on the outcomes is not due to the implementation of intervention alone but to a joint effect of the implementation of intervention and the implementation of other factors in the action model. The program theory of the plasma TV instruction can be summarized as follows, using Chen's (2005:31) model:

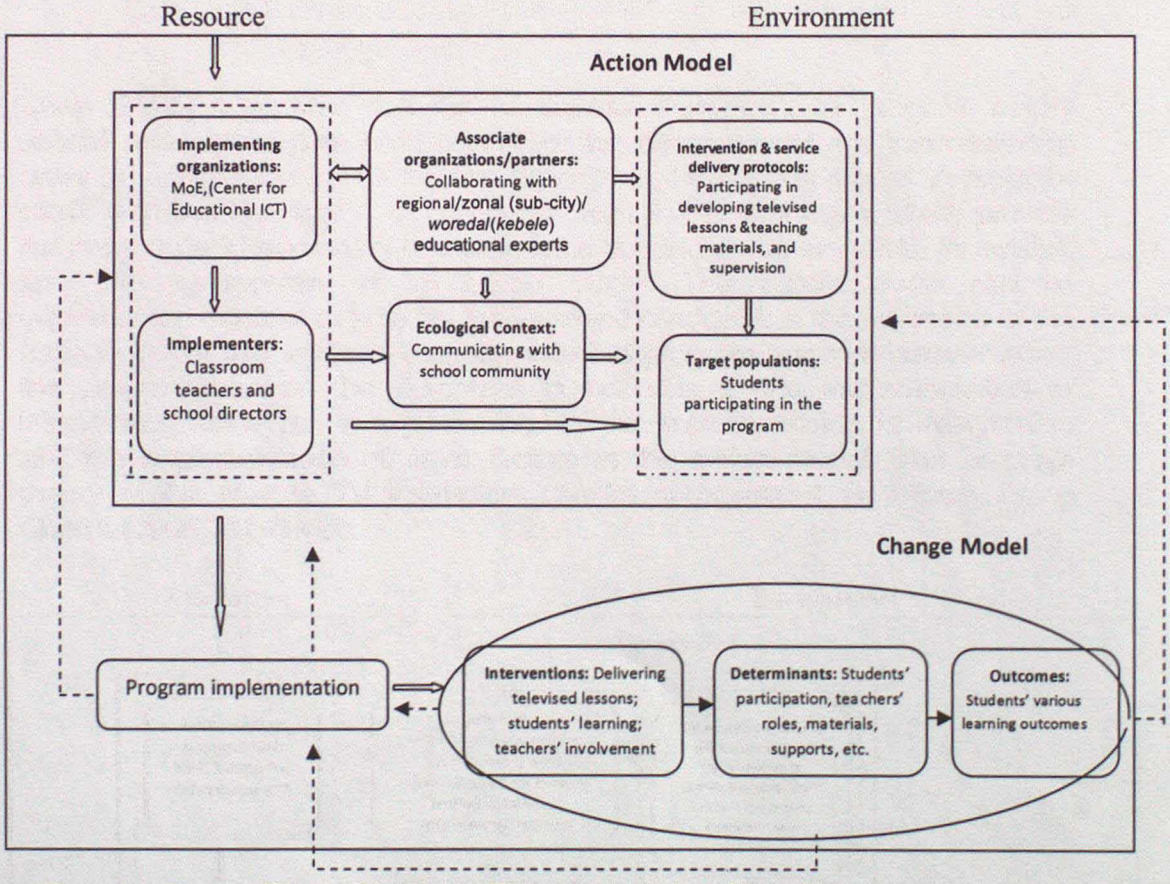


Figure 3.1: Program Theory of the Plasma TV Instruction (Adapted from Chen, 2005:31)

As was mentioned in the background of the study, the plasma TV program in Ethiopian saw educational television being delivered to governmental secondary schools in the country through a closed-circuit system using Very Small Aperture Terminal (VSAT) satellite dish. This system provided a narrowcast facility that extended across the country. The signals have been broadcasted from Center for Educational Information Communication (CEICT) which is found in the center of the country, Addis Ababa. The program is expected to transmit uniform education to many students with an access to model and competent teachers, to provide standardized education to all high schools, to present abstract concepts in a simplified manner, and to overcome the problem of qualified teachers (FDRE, 2004).

For the televised program, it is expected that Center for Educational Information Communication of the Ministry of Education is the key implementing organization of the program. It is responsible to design, prepare and transmit televised programs throughout the country. Moreover, other associate organizations and community partners like the regional, zonal (sub-city)/ *woredal*(*kebele*) educational experts are assumed to collaborate with CEICT in developing, supervising and monitoring the implementation of the program. Classroom teachers, students, and school directors are also responsible to utilize the program. That is, the plasma TV is organized around lessons and tasks presented by a plasma teacher, facilitated/supported by the classroom teacher, and performed by students.

The relationships among these components are illustrated in Figure 3.1 above. That is, the conceptual framework for program theory of the PTV should make clear how components of the action model are interrelated in order to activate the transformation process of the change model. In line with this, in the figure the large square around the program represents its boundary. Everything within the large square is part of the program; all that is outside the square is 'environment,' providing the program with necessary resources and support (in other words, its inputs), or, perhaps, factors working against implementation of the program. It shows that, generally, a program

starts with the acquisition of resources from the environment and the development of an action model. Fueled by the acquired resources, the action model can be implemented in order to activate the change model. It is the operation of the change model that leads to the attainment of program goals. Solid arrows joining the acti on model to the cha nge model indicate that, strictly speaking, whatever effect the program has on the outcomes is not due to the implementation of intervention alone but to a combined effect of the implementation of intervention and the implementation of other factors in the action model as Chen (2005) puts it clearly. Evaluation feedbacks are represented by dotted arrows. The evaluation feedback in the figure comprises information about how the action model was implemented in the field, such as whether the program reached the right target population (learners and teachers).

Similarly, the dotted arrow from the implementation to action model indicates that evaluation feedbacks from the implementation can be used to improve the planning or the development of the action model. The dotted arrows from the change model to the implementation and action model indicate that the information from the causal process of the change model can be used to improve or modify the implementation process or the planning of the action model.

The conceptual framework, as Chen explains, provides two distinct general evaluation feedbacks: the internal and the external. The dotted lines in the figure represent evaluation feedback and feature two sets of 'feedback loops.' Each set of evaluation feedback loops indicates one path that program evaluation can follow to obtain information vital to program improvement. The remaining set of feedback loops passes to the environment and then back again to the program, as illustrated in the figure. This is the external feedback loop, incorporating both scrutinies by the environment and improvements from the program itself.

In the view of the above program theory, process- oriented assessment technique has been carried out to assess systematically how the action model of the televised ELT has been implemented, and how the improvement has been actually done. That is, to examine the practices of the program(to evaluate whether the program has been implemented according to the intended plan; to gauge the degree of congruency between intervention and target groups as planned and intervention and target groups as implemented) performance assessment strategy was used. On the other hand, to identify problems related to the improvement of the telecasted ELT program, and to address the problems, both background information provision and development facilitation strategies have been employed. This is because, these strategies can help to generate data on the background of the program under development in terms of stakeholders' characteristics and needs and/or intervention options and to facilitate the stakeholders' efforts to develop or fine-tune the logic of a program, or to identify its problems and seek programmatic solutions for them(Chen, 2005). Moreover, they can solidify a common vision, winning support, and broadening the program's capacity (Guba and Lincoln, 1989; Patton, 1997 as cited in Chen, 2005).

3.2.2 Conc eptual Model of the Study

The following conceptual framework was used in the study as a model which has been generated from program theory of the plasma mode of instruction and literature sources. The model represents a number of variables which were investigated in the study. These variables are interrelated to each other as demonstrated by arrows in the model (Fig. 3.2).

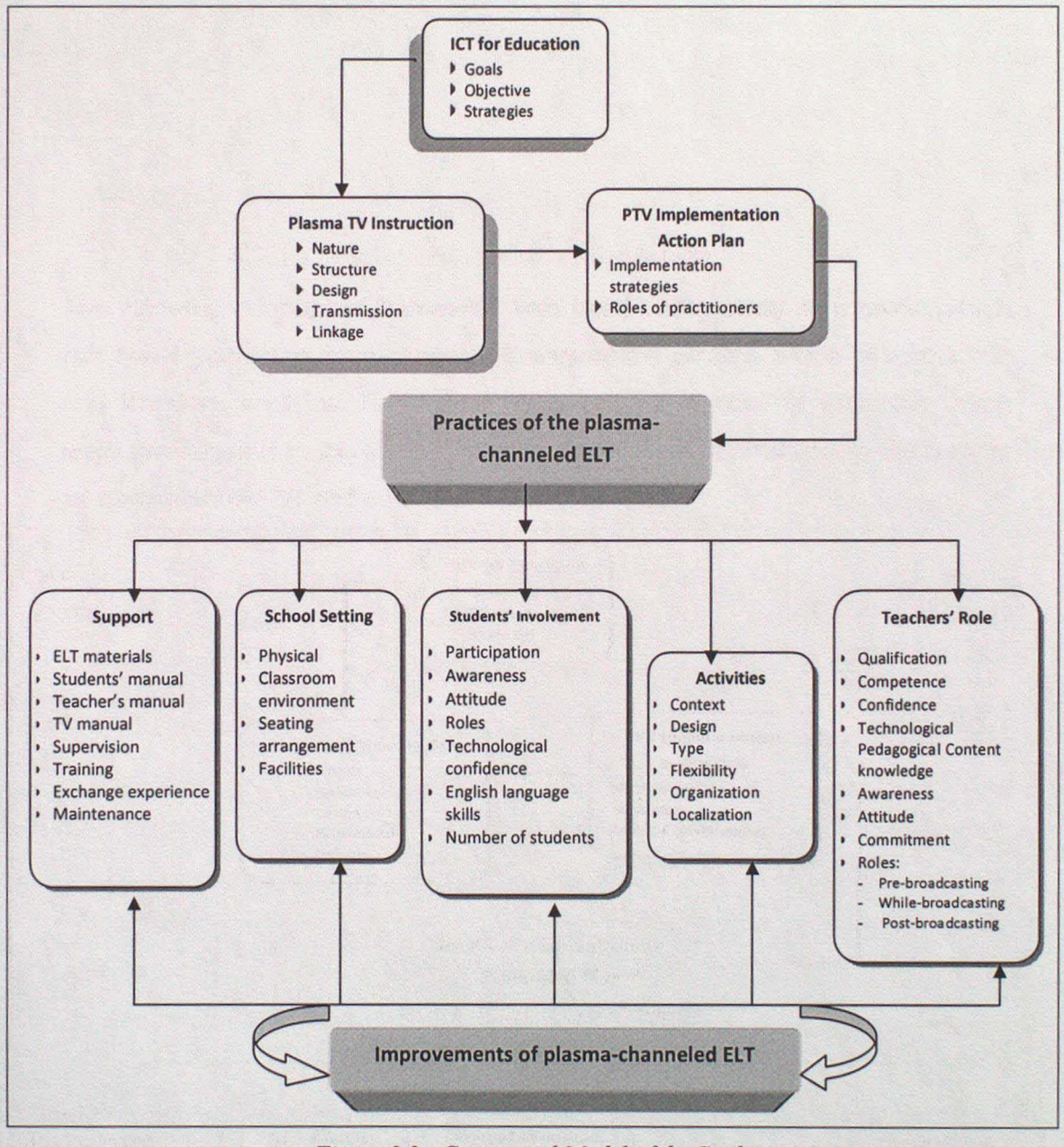


Figure 3.2: Conceptual Model of the Study

The Ethiopian ICT for education policy aims at ensuring ICT as an integral part of education and training at all levels (Hare, 2007). The policy indicates what the country intends to do with information communication technologies in educational settings. It is formulated by the Federal Government and has a countrywide application. The wider Ethiopian national e-learning initiative which extends from the country's ICT for education policy is the plasma TV program (FDRE, 2004). The implementation action plan which extends from the country's plasma TV program provides how the televised lessons are utilized. This document includes the plasma–based instruction implementation strategies and the roles of the practitioners (MoE, 2006a). It extends from program formulation to incorporation and performance at the school level. The study, hence, has examined the practice of the program at school level in terms of the implementation action plan. It examined the teaching of the televised English language instruction in terms of the objectives and strategies of the program, and pedagogical and technological use of PTV. The roles of classroom English language teachers, the plasma teacher, students, principals, supervisors, parents, and infrastructures were also investigated.

According to scholars like Spodork (2001) and Rilling and Dahlman (2001), it becomes clear that ITV is expected to show remarkable results in school education. The Ethiopian government's plan also indicates that the expansion of plasma TV program through the country is expected to access uniform education to all students at secondary level (FDRE, 2004). These expectations can meet their goals if the front line workers (students and teachers) play their role. Since these elements are crucial in implementing the program, the study focused on investigating technological pedagogical and content knowledge of English language teachers, their commitment, confidence, competence and attitude to use the technology, and their roles before, while, and after the program. Moreover, the plasma teacher's different roles were assessed. The motivation, attitude of the students' learning though PTV, technological exposures and confidence of the students, number of students, their English proficiency and learning styles have been also studied and analyzed.

The availability of activities in the teaching materials and on the plasma TV has also a vital role in televised language instruction as discussed in the preceding chapter. The study, therefore, was concerned with the content, design, type, flexibility, organization and localization of the activities. Besides the activities, the plasma TV cannot be effective unless support services are provided. Hence, the present study focused on governmental (regional), and institutional (school) supports. That is, support materials, such as satellite TV program manual, students' textbooks, teacher's guide, ELT reference books, and audio and video materials were studied. Other supports like supervision (inspection), training, maintenance, experience share were investigated and analyzed as well. The study also emphasized school setting: physical, environment, seating arrangement, coordination and facilities. Other elements such as technology anxiety, ITV program development, production, transmission, scheduling (the length of a period, repetition, broadcasting hours), teachers' and students' philosophy of teaching-learning, and the nature of plasma English teachers (native, non-native; male, female) have also been addressed.

In general, to gain insights on how plasma TV instruction can efficiently be employed into the English language classrooms in government preparatory schools of Addis Ababa, the framework has been used throughout the study.

3.3 Research Methodology

3.3.1 R esearch Design

Effectiveness research has a long history of use with established programs in areas such as education, criminal justice, and welfare and reform programs. According to Riddell (2008), the bulk of research on education in developing countries until the late 1980s made use of research methodologies and approaches which built on the first wave of school effectiveness research undertaken in industrialized countries. This first wave of effectiveness researches were designed to measure the influence of individual variables on academic achievement - i n many ways analogous to the contributions of inputs to attain intended outputs. An important focus of this period of research was distinguishing the influence of family background factors on learning achievement as compared to school factors, over which policymakers had some control. Riddell further states that from the late '80s on, a second wave of school effectiveness research moved away from these 'input-output' approaches, and focused instead on process variables, such as teaching style, the approach being based more on educational theory, than on 'input-output approaches' which searched for the key 'individual' variables found to be statistically significant. A third wave of school effectiveness research according to Riddell can be identified as having begun in the late 1980s and it continues to this day which held out the promise of modeling more realistically the complex web of factors influencing education quality and focused on the interrelationship of variables across the typically clustered phenomena of schools, in which students, themselves of varying backgrounds, are taught in different classes, in different schools, by different teachers and with different resources in different parts of the countries in which they live. This third wave of research was made possible because of new, multilevel statistical models.

To Chen (2005), effectiveness evaluation (assessment) scopes out the effect of an intervention in its real world milieu. Its end is to provide practical information about ways to improve current and future programs. It is used to test interventions that are interesting to stakeholders and relevant to their

practice. Specifically towards evaluating the effectiveness of e-learning, Valcheva and Todorova (2005) propose approaches, such as, comparison with traditional learning; tools and instruments for evaluation of e-learning; return on investment (ROI) reports; product evaluation; performance evaluation; and comparison with hypothetical system. In other words, these scholars suggest that the effectiveness of e-learning can be examined by comparing with traditional learning using preliminary determined quality indicators, by using on-line data gathering tools for assessing the user interface characteristics of software or frequency and duration of usage, by assessing knowledge or skills acquired by learners based on the information delivered during the learning process and by evaluating the result of the e-learning and learners' performances. However, Valcheva and Todorova (2005) mention that these approaches have lack of universality an d they recommend that any e-learning effectiveness studies should consist of the following steps: defining the system of indicators like software, hardware didactical, communication and information indicators; quantifying the quality indicators; defining the weights of the coefficients; and defining the general evaluation of efficiency of virtual environment by appropriate goal function.

Furthermore, Attwell (2006) underscores that in evaluating the effectiveness of ICT based instruction, the biggest problems has proved to be handling the number of variables which potentially impact on the effectiveness of the program. And Attwell suggests that the evaluation of e-learning project has developed a more comprehensive framework. Over several e-learning evaluation projects, five major clusters of variables have emerged. These are individual learner variables, environmental variables, technology variables, contextual variables and pedagogic variables. Each of these can be disaggregated into more precise groups and further disaggregated until individual variables can be identified and isolated.

In this study, therefore, an attempt has been made to develop a more comprehensive framework which comprises major variables to be investigated. That is, in order to investigate the effectiveness of the practice of

the plasma-channeled English language, effectiveness indicators have been defined and variables to be investigated have been identified as explained in the preceding sections.

To achieve the intended purpose and to answer the basic questions of the study, a descriptive research design has been employed. A mixed approach (quantitative and qualitative approach) was used to collect the relevant data. A descriptive research design has been adopted because it is believed that such approach is appropriate to look into what really occurring for the effectiveness of practising the program and its development in real world milieu. In relation to this, Neuman (2007:16) confirms, "Descriptive research presents a picture of the specific details of a situation, social setting, or relationship; it focuses on 'how?' and 'who?' questions: 'How did it happen?'; 'Who is involved?'" Other scholars, Lodico, Spaulding and Voegtle (2010) , also support this in that descriptive research aims to describe behaviors and to gather people's perceptions, opinions, attitudes, and beliefs about a current issue in education. In this study, thus, an attempt has been made to look at the practice of the plasma-channeled ELT when it comes down to the ground reality.

3.3.2 Research Setting and Subjects

3.3.2.1 Research Setting

The settings of this study are situated in Addis Ababa which is the capital city and the center of political, economic, social and cultural activities of Ethiopia. Since the City is the seat of numerous NGOs, embassies, bilateral organizations (including those with the UN system) and the headquarters of African Union (AU) and Economic Commission for Africa (ECA), English is a widely spoken and used foreign language in Addis Ababa including other foreign languages like French, Italian and Arabic. Moreover, the language is most used as an official language in some organizations of the City.

Before selection of research settings, the researcher had frequently made a preliminary survey of governmental preparatory schools in City Government of Addis Ababa and had made informal discussion with students, English language teachers and directors in order to understand issues related to the use of the plasma TV in English language lessons and to understand the activities of teachers and students and how it impacts their teaching and learning process. In this process, the research also took into consideration issues of school leadership and management coordination as well as issues related to facilities, and attitudes towards the use of PDPs. Concurrently, series of visits were made at Ministry of Education, Center for Educational Information Communication (the former Educational and Media Agency), and City Government of Addis Ababa Education Bureau. The reason that the researcher spent this time in the subjects' world is to be aware of the nature of the plasma-channeled ELT well; to select research sites and subjects; and also to formulate instruments according to the subjects' level of understanding.

After the preliminary observations, two government preparatory schools in the city, namely Menelik II and Medehanealem schools were selected purposefully for the pilot study as these schools have added similarities in the following areas:

i. Both schools are pioneer and long-standing schools in the education history of the country. Menelik II was the first modern school established in era of Emperor Menelik I I, and Medehanealem was opened in Emperor Haile Selassie's reign;
ii. Both schools in the city are assumed t o be identical in terms of facilities, they are almost quite similar, and they are all fully equipped with the necessary audiovisual equipment for the viewing of PTV; and
iii. Most of the teaching staff members are senior and well experienced in teaching through plasma TV and their social and professional training would have given them enough exposure towards television as an instructional tool.

Moreover, these preparatory schools were selected for the pilot study because of the research's better exposure and access to different relevant information. This helped the researcher to facilitate a higher return rate of questionnaires since he was familiar with the schools and therefore able to personally deliver and collect the questionnaires.

After reporting the results of the pilot study and obtaining feedbacks during the upgrading session, five preparatory schools were selected on the base of stratified random sampling for the main study. That is, in 2011/12 academic year, there are 13 government preparatory schools in the city (in Gullele, Kolfe-keranio, and Yeka sub-cities two preparatory schools each and in Addis Ketama, Akaki-kaliti, Lideta, Arada, Bole, Kirkos and Nifasilk-lafto sub-cities one preparatory school each). In view of the fact that the two schools wherein the plot study was carried out are found in Arada and Gulele sub-cities, the main study excluded these sub-cities. Then, five sub-cities were selected on the base of stratified random sampling from the remaining 8 sub-cities in order to insure the representation of all parts of the study population. That is, the population was stratified into five geographically scattered sub-cities (Kirkos, Addis Ketema, Lideta, Akaki-kaliti and Kolfe-keranio). From each stratum, five preparatory schools namely Abiot Kirs, Addis Ketema, Dejazmach Balcha Abanefso, Deratrtu Tulu, and Millennium were included in the study on the base of random sampling technique.

According to the statistic obtained from each school, there are a total of 9198 preparatory students in the selected schools (3121 in Abiot Kirs, 2700 in Addis Ketema, 684 in Dejazmach Balcha Abanefso, 1419 in Deratrtu Tulu and 1274 in Millennium). There are also 79 English language teachers who teach these students (Abiot Kirs (21), Addis Ketema(18), Dejazmach Balcha Abanefso(12), Deratrtu Tulu(14) and Millennium(14)). From these totals, the study involved randomly selected 500 students, and 50 purposefully selected English language teachers. In an attempt to determine the proportional allocation of sample size in each study areas, the number of population in each study area was divided by the total population and the result was multiply by the total sample size. The main sample schools, population and sample size are shown in table below.

Table 3.1: The Sample Schools, Population and Sample Size

S/No	Name of the school	Location (Sub-city)	Population			Proportional Sample Allocation		
			Students	Teachers	Directors	Students	Teachers	Directors
1	Abiot Kirs	Kirkos	3121	21	3	170	13	2
2	Addis Ketema	Addis Ketema	2700	18	3	147	11	2
3	Dej. Balcha Abanefso	Lideta	684	12	3	37	8	2
4	Derartu Tulu	Akakai-kality	1419	14	3	77	9	2
5	Millennium	Kolfe-keranio	1274	14	3	69	9	2
Total			**9198**	**79**	**15**	**500**	**50**	**10**

In addition to above mentioned informants form school settings, data were also obtained from the transmission area; three experts from Center for Educational Information Communication Technology were also included in the main study. Detailed explanation about the informants of the study and how they were selected is presented beneath.

3.3.2.2 The Subjects of the Study

Four groups of informants have been used: students, classroom English language teachers, school principals and media experts/specialists. Students and teachers refer to those who have used the plasma-based instruction in learning and teaching English. School principals include directors and vice directors who are administering schools in which plasma instruction is used. That is, each school has three directors: the principal director (who is higher officer of the school and responsible for both administrative and instructional leadership) and two vice directors (the one who is accountable for the teaching-learning process and the other for the teachers' professional development). The study included the principal directors and the vice directors for the teaching-learning process since these officeholders are directly liable to the practices of the plasma-based instruction at school level. The plasma television experts comprised the Manger of the Broadcasting Area (who has active roles in the design and management of the plasma TV instruction), Educational Media Programs Production Panel Coordinator (who is accountable for production and implementation of all plasma programs), and an expert for English Language Plasma Programs (who is responsible for content specification, production, transmission and utilization of the plasma-based English lessons).

Altogether two questionnaires have been distributed to the students and English language teachers. The questionnaires have been distributed physically on site. Along with questionnaires, interviews were made with students, English teachers, principals and experts. Series of physical and classroom observations were also made by the researcher and his co-observer. Besides, documents were collected and diary was recorded.

All in all this makes the main study based on 583 informants (515 plasma students; 60 classroom English teachers; 10 directors; 3 experts). Before the main data gathering, however, pilot study was conducted to validate the instruments used. The pilot study involved 108 students, 34 English teachers

and 4 directors. Table 3.2 shows how these informants have been addressed over the period of investigation.

Table 3.2: Summary of Empirical Material

S/No	Data capture tool	Population/ setting	Main Study		Pilot Study	
			(n)	Date	(n)	Date
1	Observation	Transmission area	1	Jun 2011 – Jan 2012	1	Apr – Jun 2010
		Schools	5	Sep 2011 – Feb 2012	2	Nov 2010
2	Questionnaire	Students	500	Dec 2011 – Jan 2012	100	Oct – Dec 2010
		English teachers	50	Dec 2011 – Jan 2012	30	Oct – Dec 2010
3	Interview	Students	15	Jan – Feb 2012	8	Nov – Dec 2010
		English teachers	10	Jan – Feb 2012	4	Nov – Dec 2010
		Principals	10	Dec 2011 – Jan 2012	4	Nov – Dec 2010
		Experts	3	Feb 2012	–	–

Besides the above mentioned data capture tools, the researcher kept a diary and collected documents throughout the study. The diary was recorded when observations were conducted on site in the school where the study was conducted, and in the transmission area. Documents, such as, published and unpublished policies on education and ICT for education, plasma TV programs implementation manuals, text books, recorded televised lessons, syllabi of grades 11 and 12 English language education and schedules of plasma lessons were also gathered from libraries, online sources, offices and studios in person.

As indicated in the Table 3.2, the target subjects for this study were preparatory school students, English language teachers, school directors, and plasma TV experts. That is, since the aim of the study is to obtain data about the effectiveness of the practice of the plasma-channeled ELT and its development, then it is reasonable to say that the target population should be those students and English language teachers who have used plasma TV as an instructional tool. Therefore, during the main study, 500 preparatory students, and 50 English language teachers were involved to fill in the questionnaires. Moreover, 15 students, 10 English language teachers and 10 directors from the sample schools, and 3 experts form CEICT were interviewed in order to elicit information on their understanding of the effective practice o f the plasma-channeled ELT and its development. F urthermore, observations were carried out in those schools and transmission area.

The student respondents were selected using simple random method. Simple random sampling method is chosen because it is the simplest sampling techniques that requires less time and cost, guarantees that the sample chosen is representative of the population and allows participants to have equal chance of being included in the sample. Teacher respondents, on the other hand, were purposefully selected on the criteria of being experienced with both the terminated and the improved plasma TV instruction; that is, English teachers who have no exposure of the terminated plasma-channeled English language instruction were excluded from the target population. The reason that both the student and teacher respondents were selected as the target of the study is that it is believed that they have a capacity to provide evaluative information about how the program had been practiced effectively. It is expected that grades 11 and 12 students have experience of learning through the plasma at least for two to three years. Thus, it is believed that they would be able to give pertinent and better information about the implementation of the program than grades 9 and 10. What is more, these students are relatively more mature both in age and academically than students in secondary classes so that they were able to provide rich evaluative information about the practice of the plasma-based English language teaching and learning. English language teachers were also chosen for the study since they had rich information about the plasma based English language education; most of them were teaching the English language via plasma TV for three to five years at preparatory schools level.

Due to the fact that school principals are responsible for the effectiveness of the program, the study included them. As far as the selection of instructional TV experts is concerned, the most important consideration was the responsibility they held in the plasma TV production, transmission and inspection. It was believed that they were able to provide a rich, inside view of the implementation of the program and its development. The study, therefore, involved these officials on the basis of purposeful sampling techniques.

3.3.3 Instruments of Data Collection

To gather the data necessary for the study, five different instruments were employed. These were observation, questionnaires, interview, researcher's diary (reflective journal), and documents (syllabi of the old and new grades 11 and 12 English, recorded plasma lessons, implementation action plan of the plasma TV instruction, students' exercise books and textbooks, and schedule of transmission and school program). That is, the necessary information in the study was obtained by observing directly the physical settings of schools and televised English classes (using a checklist), distributing questionnaires to the learners and their teachers; keeping notes; assessing a series of recorded plasma lessons, the implementation action plan, and exercise books; and interviewing students, English language teachers, principals, and plasma TV experts.

3.3.3.1 Observation

Allwright (1988) suggests that classroom observation in language classes helps directly to find out pedagogic and other problems. Garson (2006) and Delamont (2001) also stress that classroom observation is a core instrument of collecting data from the real scene. In this study, observation has been carried out to investigate what the plasma-channeled ELT really look like inside and outside the classroom regarding the following issues:

- physical settings of schools and facilities;
- the nature of the plasma-channeled English lessons;
- the plasma teachers' ways of presentations;
- classroom teachers' application of TPACK;
- the level of help students get from the classroom teacher during different phases of the televised English lessons; and
- the participation and engagement of the students in the lessons.

The observations were made before and during the study. That is, before the pilot study was conducted, the researcher made frequent observational surveys from April to June 2010. The observational surveys were mainly focused on the physical setting of schools where plasma TV was used as an instructional tool, and the program transmission area where plasma-based instructions were broadcast. During this time, the researcher had kept a diary, taken photographs, made informal interviews, and collected relevant documents. During the pilot study, in November 2010 series of English language plasma lessons (the first five units from grade 11 and the first five units from grade 12) were reviewed at studio of the transmission area and notes were taken down. Moreover, after permission had been obtained from the transmission area to transmit sample plasma lessons of the terminated televised English language for the study purpose; ten live plasma lessons were observed. The transmission for the pilot study's purpose was aired for a week, between November 08 and 12, 2010. During the first two lessons the researcher and his co-observer observed what really was going in the classroom, but data were not taken as it was to familiarize students and teachers with the medium. Then, providing teachers with the hard and soft copy of the scripts, and teacher's and student's manual of televised lessons to be telecast, the researcher together with his co-observer observed directly a total of 10 sections of grade 12 televised English language lessons, using a checklist which had been designed based on the conceptual model of the study. The classroom observations lasted for 40 minutes each and some of them were backed up with video recording and photographing.

Before the main study was carried out, observations were also made at the transmission area from June 2011 to August 2011 in order to look into the nature of the improved plasma lessons which would be aired in the coming academic year staring from September 2011. Between September and October 2011, when the new plasma lessons were being used, series of classroom observations were made, diaries were kept , photographs were taken and informal interviews were made with students, teachers and

directors about the improvements made. In November 2011, having given training to a co-observer about the checklist, the researcher along with his co-observer observed 5 televised lessons using the checklist to familiarize the co-observer with the situation and the observation checklist. Discussions were made after each trial observation. Then after, the researcher and the co-observer observed 30 plasma-channeled English lessons in order to collect observational data using the checklist. Eventually, the results of the observations were compiled and analyzed.

This tool was basically used to find relevant data for the first, second, third, fourth and fifth research questions, which seek information on the practical delivery of the program, classroom teachers' application of TPACK, the nature of televised activities and classroom environment.

3.3.3.2 Questionnaire

In order to get information on the effectiveness of the practice and development of the plasma-channeled English language lessons, both closed- and open-ended questions were initially designed based on the conceptual framework of the study.

For the study, questionnaires were distributed to students and English language teachers. The purpose of the questionnaires was to gather the responses of these subjects regarding the situation in their classroom and at their school in general which were related to the use of the PTV instruction for teaching English. The questionnaires also sought to elicit respondents' opinion about teaching-learning English via the plasma TV instruction and the development of the program.

The questionnaires basically covered background of the respondents, activities concerned with the plasma TV presenters, classroom teachers and students, respondents' perceptions on the nature of the terminated and improved plasma-channeled English language activities, and plasma-mode ELT results. The first part of the questionnaires for students and English

language teachers sought information on the respondent's personal data, such as sex, years of experience with the plasma instruction, and the like. The respondents were asked to fill in the required information or to tick in the appropriate boxes. The second part of the questionnaires asked for information on the general practice of the respondents regarding the use of PTV in ELT, such as the plasma teachers' ways of delivery, the roles of the classroom teacher, and students' performances. Measured frequency ratting scales: Always, Sometimes, Undecided, Rarely and Never were used to identify the frequencies of performances carried out by the plasma TV teachers, the classroom teachers and students. The third part of the questionnaires dealt with respondents' perceptions on the nature of plasma-channeled English language activities. This part also contained an open-ended question inviting the respondents' comments on contents of terminated and improved plasma-mode of instruction. In the fourth part, teacher respondents were asked about their technological pedagogical content knowledge and its applications in the plasma-based instruction. The last part of the questionnaires sought information on the overall effectiveness of the plasma-channeled English language instruction, and contained an open-ended item inviting the respondents' comments on the effectiveness of the practice of the plasma-based English language education. To measure respondents' feelings, items from part three to five were offered with Likert scaling technique (Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree).

The questionnaire for students was initially prepared in English. Then, as it was assumed that the students are more proficient in Amharic than they are in English, the questionnaire was translated into Amharic and approved by two professionals in Amharic language who work in the Department of Ethiopian Languages, Addis Ababa University. This was deliberately done to avoid the problem of language barrier which might interfere in obtaining the necessary information.

After identifying students and teachers who have passed through plasma TV together with department heads and subject teachers, the researcher in collaboration with the subject teachers and department heads distributed the questionnaires to the respondents (500 students, and 50 English language teachers). During the administration of the questionnaire in each section, the selected students and teachers were advised to carefully go through the items in the questionnaires and to ask for clarification on points they might not be clear with. Total anonymity was also ensured and they were asked not to write their names anywhere. The researcher explained the instructions and questions to help the samples to respond to them whenever asked.

All of the distributed questionnaires to teachers were collected. However, from 500 questionnaires distributed to students 16 of them were not returned, and the responses of 12 students were discarded since they were not properly filled. Therefore, 472 of students' questionnaire with 94.4% response rate and the entire teachers' questionnaire were used in analyzing and discussing data.

The questionnaires were intended to generate data relevant to research questions one, two, three and four, which focus on the plasma-mode ELT program's nature, way of delivery, problems and improvements, and TPACK of classroom teachers.

3.3.3.3 Researcher's Diary/Reflective Journal

Emerson, Fretz and Shaw (2001), and McKay (2006) recommend that field notes are essential for descriptive studies because they provide a recording of what the researcher has seen and heard. Regarding reflective field notes, Lodico, Spaulding and Voegtle (2010) also suggest that reflective field notes include descriptions of the observers' feelings and thoughts about what is being observed. Such notes allow researchers to reflect on their own feelings, values, and thoughts in order to increase their awareness of how these might be influencing their observations.

Having this in mind, the researcher made a detailed record of some classroom and field notes which focus on the overall activities inside and outside the classroom. That is, in order to collect pertinent data for the research, in line with the first, fourth and sixth research questions, the researcher recorded important observations and informal discussions about the practices and improvements of the plasma-mode of English language education. The data were compiled (please see Appendix F) and analyzed qualitatively triangulating them with the data obtained through other instruments.

3.3.3.4. Document

Lincoln and Guba (1985) explain that documents are readily available and stable sources of data. Bearing this in mind, the researcher reviewed some policies and other documents. This was particularly useful because it gave him the opportunity to compare what was proposed and mentioned in the documents with what actually occurred in the field. That is, another sources of data were documents such as published and unpublished Federal Democratic Republic of Ethiopia Ministry of Education policies on education and ICT for education, CEICT's plasma TV programs implementation manuals, training materials and recorded televised lessons, syllabi of the terminated and improved grades 11 and 12 English language education. This allowed the researcher to identify key issues that were available in the documents, and helped to confirm what were obtained through other types of instruments used in the study. Besides, sample plasma lessons, photographs of different features of classrooms were taken to support the analysis. This has been done to get relevant data for the first, third, fifth and sixth research questions. All these secondary sources were analyzed qualitatively.

3.3.3.5 Interview

Arksey and Knight (1999) suggest that the interview method helps to obtain more information from participants by involving each of them in a detailed conversation. Bearing this in mind, in order to validate the information gathered though the questionnaires, classroom observation and personal journal, separate interviews were held with, 15 preparatory students, 10 English language teachers, 10 principals and 3 media experts during the main study. The reason for this was to counter check the results of questionnaires, classroom observations, field notes and documents.

All interview guides were formulated in English language based on the six research questions. However, the interview guide to students was translated into Amharic to avoid the problem of language barrier which might interfere to attain the necessary information. After explaining the objective of the study and having got the interviewees' consent, the researcher himself made the interviews. Each interview lasted for 15 to 25 minutes, and the conversations were tape-recorded.

The dominant themes that emerged during the interviews were:

- characteristics of plasma-channeled ELT ;
- activities concerned with the plasma TV presenter, classroom teacher and students;
- application of TPACK;
- supports/facilities;
- plasma-mode ELT results; and
- plasma-channeled English language improvement.

In general, the relationship between the research questions asked and the type of data collection instruments that generate the required data are shown in the Table 3.3 below.

Table 3.3: The Relationship between the Research Questions and Data Sources

Research Questions	Data Sources				
	Observation	Questionnaire	Interview	Documents	Diary
1) How is the plasma-channeled ELT delivered?	✓✓	✓✓	✓	✓	✓
2) What is the technological pedagogical knowledge of English language teachers like and to what extent is this knowledge employed in the plasma-channeled English lessons?	✓✓	✓✓	✓		
3) What is the nature of the content of televised activities?	✓✓	✓✓	✓	✓✓	
4) What major problems have students and English language teachers encountered in using the plasma-channeled instruction?	✓✓	✓	✓		✓
5) What improvements have been made to overcome the problems?	✓		✓✓	✓	
6) In what ways is the improved televised ELT different from the previous one?	✓		✓	✓✓	✓

Note that the number of ticks signifies the weighting. While one tick indicates that the instrument was used as supporting role in generating the required data, two ticks show that the instrument played as a major role in generating data.

3.3.4 Data Analysis

To assess the effectiveness of the practice of plasma-channeled ELT and its development, both quantitative and qualitative data analysis techniques were carried out in the study. Descriptive statistics including frequencies, percentages, means and standard deviations have been employed to analyze the data. Finally, the results were interpreted and discussed in relation to the research questions and relevant literature.

In order to interpret data obtained through questionnaires, descriptive statistics (mean and standard deviations) were applied, and to make the interpretations more dependable, a one-sample t-test was also employed by taking 2 (neutral) as a test value using SPSS for Windows 15. The responses

were rated for all five point scale measurements based on the following scales: 4=Always; 3=Sometimes; 2=Undecided; 1=Rarely; 0=Never for some part of the items, and 4= Strongly Agree; 3= Agree; 2= Neutral; 1= Disagree; 0=Strongly Disagree for the majority of the items with 0 being to the nil rate and 4 being to the highest rate. The mean scores were then computed based on the above five point Likert scale. Thus, the mean score of any individual item supposed to fall between 0 and 4. Consequently, the resulting means were interpreted against a neutral attitude (i.e., neutral=2) by taking the value of '2' as a reference point since it stands at the middle in the rating scale. Therefore, mean scores above 2 (neutral) were taken as favorable opinion to the given point of view and below 2 (neutral) unfavorable opinions to the given point of view. This corresponds to what Best and Kahan (1995) explained about Likert scale interpretation. Moreover, the data obtained through classroom observations were analyzed using frequency counts and percentages. On the other hand, the data gathered by means of interviews, documents, reflective journals and open-ended items have been analyzed qualitatively.

Data analysis and discussions were made by correlating, consolidating and computing quantitative and qualitative data as Onwuegbuzie and Leech (2006) suggest in interpreting and analyzing quantitative and qualitative data within a mixed approach. That is, the data obtained through quantitative data were presented in tables, bar graphs and charts, and interpretations were made by correlating quantitative with qualitative, by combining both quantitative and qualitative data to create new or consolidated variables and by computing data from the qualitative and quantitative data sources. Then, discussions were made comparing and contrasting the information obtained by means of all the tools and the information narrating the theoretical issues from literature review. Finally, based on the findings of the study and discussions made, conclusions were drawn and recommendations were forwarded.

3.3.5 Validity, Reliability and Ethical Issues

3.3.5.1 Validity

The emphasis given to defining conceptual issues and the review of related literature give a thorough background to the study. This review was believed to enable to focus on issues with proven evidence and for constructing observation checklist, questionnaires and interview guides for investigating the effectiveness of televised English language teaching and its development. The extensive review of related literature also formed a firm foundation to provide an adequate representation of various aspects of the study. The conceptual framework developed from the reviewed literature helped not only in guiding the study but also in developing data collection instruments. Therefore, data collection instruments were formulated to provide a strong base in order to understand the same phenomena from different directions.

To confirm the validity of the instruments, a great effort was made to present their draft to researchers, instructional media specialists, English language teachers and students for comments. That is, after receiving and incorporating comments from the researcher's supervisor, the instruments were given to three professionals (an ICT instructor from Faculty of Informatics in Addis Ababa University who has experience in e-learning, an educational researcher from Faculty of Education in Hawassa University, and a language professional from Faculty of Language Studies in Addis Ababa University) to evaluate for content validity. Each professional was encouraged to provide comments and suggestions for each item and, in some cases, offered their own lists of possible questions for each part of the instruments. For example, the content-validity professionals offered recommendations to revise survey items that dealt with activities concerned with the classroom teachers and students. They also suggested that some items be added in the section which dealt with the nature of the plasma-based activities. Additional comments were given to consider the clarity of general directions. As per the comments of these professionals, the researcher worked together with his advisor to

reformulate the items. Then, the questionnaires were distributed to twenty preparatory students and their eight English language teachers to test the clarity of them during the second semester of 2009/2010(in May - June 2010). Upon administration of the questionnaires, some vague and unclear items were also identified. Therefore, some of these items were cancelled and modified before the pilot study was carried out.

An attempt has also been made to cross-check the content of the instruments with the conceptual model of the study to secure their content validity. What is more, triangulation in this study has been intended as one way of ensuring validly. That is, the uses of a variety of sources of data were used in the study to have valid evidence across sources of data.

3.3.5.2 Reliability

Although the term 'reliability' is a concept used for testing, the idea is most often used in all kinds of research. Concerning the concept of reliability in research, different definitions have been forwarded by scholars. For instance, Joppe (2000) defines reliability as the extent to which results are consistent over time and an accurate representation of the total population under study and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable. According to Charles (1995) reliability is consistency with which questionnaire items are answered or individual's scores remain relatively the same. Gerber and Finn (2005) consider reliability as the amount of variation to expect in the measurement from one occasion to another which can be ranged from 0.0 (the measure has no reliability and may be expected to vary a great deal) to 1.0 (the measure has perfect reliability and will be consistent from one occasion to another). To Axinn and Pearce (2006), reliability is the degree to which repeated measures will yield similar responses. Reliability refers to the consistency of scores, that is, an instrument's ability to produce "approximately" the same score for an individual over repeated testing or across different raters, according to Lodico, Spaulding and Voegtle (2010).

These definitions show us that in research, the term reliability means "repeatability" or "consistency". A measure is considered reliable if it would give us the same result over and over again.

Scholars also identified four major classes of reliability, namely, inter-rater or inter-observer reliability, which is used to assess the degree to which different raters/observers give consistent estimates of the same phenomenon; test-retest reliability(used to assess the consistency of a measure from one time to another); parallel-forms reliability(used to assess the consistency of the results of two tests constructed in the same way from the same content domain); and internal consistency reliability which is used to assess the consistency of results across items within a test (Gerber and Finn, 2005;Yalew, 2006 ; Dornyei, 2007; Lodico, Spaulding and Voegtle, 2010).

In this study, pilot study was used to ensure the reliability of the instruments. That was to estimate the internal consistency reliabilities of students' and teachers' questionnaires. In so doing, Cronbach Alpha was used to assess the internal consistency of responses from one item to another. Moreover, in order to test the reliability of classroom observations, inter-rater/inter-observer reliability was employed (Kappa Coefficient was applied to assess inter-rater reliability). To estimate the reliability of interviews, the consistency of responses of the respondents was counter-checked. The reason why Cronbach Alpha was used is that multi-item measurement scales were incorporated in the questionnaires so as to assess many different areas of the practice of the plasma-based English language instruction. To treat the reliability of such a multi-item measurement scales, Cronbach Alpha is preferable to other types of reliability measures as Gerber and Finn (2005) and Yalew (2006) suggested. The inter-observer reliability (Kappa Coefficient) was used since it is appropriate to employ such reliability test if there are just two raters as scholars like Landis and Koch (1977), Caro (1979), TexaSoft (2007) and TexaSoft (2008) recommended.

The pilot study was carried out in Menelik II and Medehanealem Preparatory Schools in Addis Ababa from September 27, 2010 to November 18, 2010. For the pilot study, 100 students from 12 sections of both schools (6 sections from each school) and 30 English language teachers (15 teachers form each school) who had passed through the plasma instructions were selected purposefully. Moreover, the researcher together with his co-observer observed directly a total of 10 sections of televised English language lessons. After data were collected, results were entered in SPSS version 15 and reliability results were analyzed and discussed.

3.3.5.3 Ethical Issues

There are two types of ethical issues that were considered for this research – formal and informal or unwritten ethical issues. The participants were provided with written consent (informed consent) in the introduction part of the questionnaires, and given the opportunity to determine their confidentiality or anonymity (please see Appendices A-E). Informal ethical issues are those that emerged in the field. The researcher was considerate and respectful of informants' requests; informants were informed that they would remain anonymous throughout the study. They were also requested to be au dio taped before the interviews were held and recorded. What is more, before photographs were taken and videos were recorded, the participant respondents were requested for their permission in order to secure their consent. During the study, for example, most of the informants did not want to be video-recorded while they were teaching via the televised instructions. Some interviewees also requested the researcher not to be audio taped, then they even expressed to say nothing on plasma since they considered plasma as an issue of politics. Likewise, some school directors did not wish their responses to be recorded. That is, all things were done as requested by the research participants.

3.3.6 Procedure of the Study

The investigation has been carried out in four stages. The first phase has been a preparatory stage where an extensive review of literature was made on a brief description of education and historical overview of ELT in Ethiopia, evolution of information communication technologies in education, instructional technologies and language learning, general information on instructional TV, facilitating and inhibiting factors for televised instruction, key indicators for the effectiveness of the utilization of ITV, relevant theories of language learning and instructional television and so on. This initial phase built an essential basis for the subsequent task, as it provided an overview of the different aspects of the research topic and the accumulated wealth of knowledge on the research theme.

In the second phase, the following major activities have been done. First, a contact was established with media officials (plasma TV experts) in order to obtain their support. Second, ICT policy documents and implementation action plan were collected and studied. Discussions with different officials at Center for Educational Information Communication of Education were also held for further understanding. Third, having made preliminary observations and a contact with educational officials in the region and sub-cities, the research settings have been selected. Then, efforts were made get acquainted with bodies concerned at the school level.

In the third phase of the study, after devoting to design, test and reformulate data collection instruments for a few months time, a pilot study was carried out and results were analyzed and reported during the upgrading session. Then, in the fourth phase, based on incites gained from the pilot study and feedbacks received during the upgrading session, some amendments were made on data collection instruments. Next, a plenty of time was spent on gathering pertinent information using the research tools sequentially. That is, although quantitative and qualitative data can be collected concurrently in a mixed data collection methods (Creswell, 2003; Axinn and Pearce, 2006), an

attempt has been made to separate the collection of quantitative data from the collection of qualitative data in the main study; the collection and analysis of quantitative data were followed by the collection and analysis of qualitative data. This str ategy was selected since the emphasis of quantitative data precedes the collection and analysis of qualitative data. Finally, the results were interpreted and discussed in relation to the research questions and relevant literature.

In order to test the research procedures and to determine the suitability of data collection tools, a pilot study was conducted prior to the main study. A discussion of the pilot study is made below.

3.3.7 The Pilot Study

The pilot study was originally intended to take place between September and November 2009. However, due to the interruption of the transmission of the plasma mode of English language instruction since September 2009, it was impossible to carry out the pilot study as planned. This situation obliged the researcher to modify the title and some parts of the project, and reformulate the research objectives and the instruments. That is, originally the project amid to assess the effectiveness of practising the televised English language instruction and challenges encountered during the practice. Having heard the intention of the broadcasters to produce new televised lessons in line with the new curriculum framework, the researcher in consultation with his supervisor decided to include issues related to the improvements of the program. Then, after re-formulating data collection instruments, the pilot study was carried out.

After data had been collected from field, responses were inspected, and closed-ended items were categorized and coded. Then, the data were keyed in. After screening incorrectly entered values, data manipulation was done using the SPSS version 15 in order to handle missing data, to recode certain values and to standardize the data. Conversely, data generated though

interviews were transcribed and analyzed qualitatively. Finally, the reliability of data collection instruments and the results of the pilot study were analyzed and discussed, and insights gained from the pilot study and their implications for the main study were reported as follows.

3.3.7.1 Reliability of Data Collection Instrument

In the pilot study, to measure the reliability of students' and teachers' questionnaires, Cronbach Alpha was used in order to assess the internal consistency of responses from one item to another. Inter-rater/inter-observer reliability was also employed in order to test the reliability of classroom observations. To estimate the reliability of interviews, the consistency of responses of the respondents has been counter-checked.

Based on rules of thumb for Cronbach's alpha reliability coefficient: "_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and _ < .5 – Unacceptable" as suggested by George and Mallery (2003:231), the reliability of items in the students' and teachers' questionnaires was checked. The reliability results of most of the items were calculated to be between Cronbach Alpha .70 and .85 (please see Appendix B1). Items below .60 were canceled since they were lower the standard according to scholars like Dornyei (2007), and Gerber and Finn (2005) suggestion. These scholars assert that if the Cronbach Alpha of a scale does not reach 0.60, this should sound warning bells. For instance, the overall alpha for items which questioned about facilities calculated to be very low (.39). This indicates the weak internal consistency among the items. Therefore, these items were deleted.

The inter-rater reliability analysis using the Kappa statistic also revealed that some items from the observation checklist were needed to be polished or removed as the two raters (the researcher and his co-observer) made minimal agreement. And most of the items are retained because the inter-rater reliability of the raters was found to be acceptable (please see Appendix B2).

That is, items values Kappa between 0.40 and 0.59 were omitted and items between 0.60 and 0.79 were modified while items Kappa above 0.79 were retained outstanding as far as Cohen's Kappa coefficient is concerned (Landis and Koch, 1977).

In order to see whether or not respondents give consistent replies to interview questions, the consistency of responses to each item was carefully described in relation to the dominant themes that emerged during the interviews. That is, to estimate the reliability of interviews, the consistencies of responses of the respondents have been counter-checked. Interview items which the respondents gave consistent responses were identified and retained; however, items that the informants gave inconsistent replies were modified before the main study was conducted.

3.3.7.2 The Results of the Pilot Study

In this section, an attempt has been made to summarize the important findings obtained during t he pilot study. In the pilot study, three different instruments were employed to generate data on the effectiveness of the practices of the plasma-based English language instruction and its development. That is, the necessary information about the pilot study was obtained by distributing questionnaire to the learners and English teachers, by observing directly the plasma-channeled English lessons using a checklist, and by interviewing students, English teachers and directors. Though documents were collected and diary was kept during the pilot, their results were not reported. The following major findings were obtained based on the data obtained through the questionnaires, classroom observations and interviews:

- The pilot study revealed that even though the plasma-based instruction has been widely used in the teaching-learning system of the secondary schools, the classroom teachers' roles to utilize the program was not as expected. Furthermore, even if teachers realized the importance of the plasma TV instruction, they were not seen during the classroom

observations using the plasma TV properly. Moreover, the plasma teachers' ways of delivery seemed to be mismatched with students' pace of learning (please see Appendix C1 and C2).

- Students' participation during the televised lessons was found to be good. Likewise, the activities displayed on the plasma screen were appropriate and good enough to develop the learners' English language abilities (please see Appendix C1 and C2).

- The pilot study also revealed that due to inconvenience classroom conditions, it was found quite hard to practice the plasma-channeled English language instruction effectively. Similarly, the knowledge students and teachers have about how to use the plasma-based English instruction found to be minimal.

The speed and problems of understanding the accent of the plasma teachers, inadequacy of time given to both students and classroom teachers and the failure of classroom teachers to play their appropriate roles during the televised scenarios, inconvenience classroom environments, and lack of supportive services were among the problems encountered to employ properly the terminated plasma-based English language lessons. During the pilot, it was not identified any tremendous efforts made to overcome these problems in the improvement of the program.

3.3.7.3 Insights Gained from the Pilot Study and their Implications to the Main Study

As was mentioned, the purpose of the pilot study was to determine the suitability of the data collection instruments and develop a priori assumptions. Also, it helped the researcher to familiarize with collecting, coding and analyzing data. Moreover, it is believed that the results of the pilot study would help to indicate direction of the main study. In this section, hence, an attempt is made to discuss insights drawn from the pilot study and their implications for the main study as listed below.

- The preliminary observations mainly focused on the physical settings of research areas, and its purpose was to familiarize with the research settings and subjects and to collect relevant documents before the pilot was conducted. After the preliminary observations, some items related to classroom settings, viewing distances of the plasma TV, and presence of self-access centers of video series of plasma lessons, were incorporated in the observation checklist(please see Appendix A4 Part I). Moreover, some items related to the conventional English language teaching-learning, have been omitted from data collection tools, and some items were polished before the pilot study was conducted.

- To generate data on the general practice of the plasma-channeled English language instruction, and its development, only students who have learnt English through the medium were asked to fill-in a questionnaire. From items concerned with students' participation, item number 4 was rephrased as "I ask the classroom teacher for clarification if the plasma teacher's presentations are not clear", and item number 5 was canceled since respondents gave inconsistent responses to this item. All items which questioned the nature of the terminated plasma-based English language activities were found to be trustworthy, so they were retained. However, though reliable responses were obtained for items that questioned the nature of the improved plasma-based English language activities, it was difficult for the student respondents to rate these sub-scales (they were undecided to give their reactions). Thus, all these items were cancelled. What is more, as the informants gave inconsistent responses, all items which deal with facilities students provided when they were taught English language with plasma TV were canceled from the students' questionnaire(please see Appendix A1 for the deleted items, they have been struck through). And it was decided to collect the information though observations. Items which dealt with the overall effectiveness of plasma-mode ELT were retained since the internal consistency of these sub-scales is

acceptable. It was also noticed during the pilot study that the number of items students were provided with were plenty in number, so they were tired of completing the questionnaire. Thus, some items which are closely related in thought were scrutinized and minimized.

- From items administered to classroom English language teachers, some of them have been removed since removal of the items maximize the overall Cronbach's Alpha. For example, from items which questioned the plasma TV teacher's way of delivery, item 5 was deleted. Furthermore, items 2, 7, 8 and 10 from items that focused on roles of classroom teachers, and item number 1 from students' participation were deleted(please see Appendix A3). In addition, all items which dealt with facilities were removed. It was also identified in the pilot study that it was difficult for the classroom teachers to give their reactions towards their expectations on the nature of the improved plasma-based English language activities since the improvement has been underway, and these sub-scales were removed. The rest of the items were retained for the major study as they had high internal consistency.

- During the pilot, the researcher and his co-observer observed 10 live broadcast English lessons to investigate what the plasma-channeled ELT really like. They rated the incidents they observed regarding the physical settings of classrooms, general practices of the program and the nature of televised activities using a checklist. From items which dealt with the physical settings of the classrooms, items 5, 6 and 10 were removed as the inter-rater reliability of them was low (please see Appendix A4 part I for the deleted items). What is more, because the two raters have substantial agreement only for an item (item 3), items (1, 2, 4, 5, and 6) concerned with the plasma teachers' way of delivery improved as: "S/he presents the lesson in accordance with students' pace of learning; s/he explain the lesson clearly; s/he shows students how to do exercises; s/he gives the classroom teacher enough time to

assist students; and s/he gives sufficient time to perform televised activities" respectively. From the section concerned with classroom teachers' roles, items 1, 3, 4 and 5 were also canceled since the level of agreement between the two raters was found to be Kappa between 0.21 – 0.40, which is less reliable. From items which focused on students' participations, items 1, 3 and 9 were dropped; moreover, items 2 and 4 were modified due to minimum agreements of the two raters. Furthermore, from the last part of the observation checklist, items 3, 5, 6 and 8 were dropped as a result of low standard Kappa(please see Appendix A4 part III for the deleted items). Above all, the classroom observation checklist was not dealt with facilities. After the pilot study, it was decided to include issues of facility in the observation checklist.

- Respondents did not find some interview items clear enough to understand in the pilot study. They often asked for repetition and clarification before giving their reactions. Moreover, it was noticed from informants' replies that unreliable reactions were given. This led to the need for re-phrasing some of interview guide questions before the major study. For instance, interview item 7 to students was reworded as: "Do you think that your classroom is convenient to attend plasma-based English lessons properly?" From interview items to English teachers, item 8 was modified as: Could you please tell me any supportive services you were provided with when you taught English via plasma TV?
- The other insight drawn from the pilot study relates to the missing values. That is, respondents missed to respond to a few of the items of the questionnaires. Hence, the content and clarity of these items were looked into.
- During the pilot, series of initial site observations were made first. Then, questionnaires were administered and concurrently some of the interviews were made. Next, after obtaining permission to transmit

sample plasma lessons of the terminated televised English language from EMA, classroom observations were conducted. Then, some of the interviews with classroom English teachers and students were made. It was noticed that the interviewees were able to recall the practices of the terminated English language well and give pertinent data when they were interviewed after the transmission. This helped the researcher to consider the order of administering tools; observing televised lessons should come first before interviewing the respondents or administering the questionnaires.

- The additional important lesson gained from the pilot study was in generating data for the development of the plasma-based English language instruction. Though it was planned to generate data about the improvement of the program from students, English language teachers and directors, it was noticed that these front line workers had little or no knowledge and involvement about the improvement of the plasma-based English instruction. Thus, more items regarding the improvement of the program would be incorporated and forwarded to experts besides documentary sources during the main study.

- It was identified during the pilot study that classroom teachers were in difficult to teach appropriately lessons that combine English language contents, the plasma-based instruction and teaching approaches. This might be due to their technological pedagogical content knowledge (TPACK) of classroom English language teachers was low. For this reason, some items which are related to the technological pedagogical knowledge of classroom teachers have been added in the teachers' questionnaire and classroom observation checklist after consulting review materials related to TPACK framework (please see Appendix A7 Part IV and Appendix A8 Part II).

Overall, the experiences gained from the pilot study are very useful. The researcher alerted about how to get pertinent data for assessing the effectiveness of practicing the plasma-channeled English language teaching

and its developments. From the pilot study, the researcher gained opportunity to familiarize him with the informants' world, to identify the data collection strategy of distributing the questionnaires, interviewing, and the process analyzing them. It is also believed that there may be other aspects to be considered in order to answer the research questions and arrive at the intended purpose which will be well thought-out later in the main study.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction

The main objective of the study was two-pronged. It was designed to assess the overall effectiveness of the practice of the plasma-channeled English language teaching (ELT) and its development. That is, the study aimed to find out whether or not the plasma-based English language instruction was practised as planned and to examine the improvements that have been made to overcome the shortcomings. Moreover, as mentioned in Chapter 1, this investigation attempted to answer the following specific research questions:

1. How is the plasma-channeled ELT delivered?
2. What is the technological pedagogical knowledge of English language teachers like and to what extent is this knowledge employed in the plasma-channeled English lessons?
3. What is the nature of the content of televised activities?
4. What major problems have students and English language teachers encountered in using the plasma-channeled instruction?
5. What improvements have been made to overcome the problems?
6. In what ways is the improved televised ELT different from the previous one?

As reported in Chapter 3, in the main study five, preparatory schools namely Abiot Kirs, Addis Ketema, Dejazmach Balcha Abanefso, Deratrtu Tulu, and Millennium were selected using random sampling technique. In addition to the schools, Center for Educational Information Communication Technology was included.

To generate data for the main study, five different data collection instruments were employed. These were observation, questionnaires, interview, researcher's diary (reflective journal), and documents. Descriptive statistics

including means and standard deviations were mainly employed to analyze the data obtained through questionnaires while frequency counts and percentages were used to interpret classroom observations. The data obtained through interviews, documents and reflective notes were analyzed qualitatively. The results are presented and interpreted by integrating quantitative findings with descriptive or narrative data.

This Chapter presents the finding of the study to be followed by closer analysis and discussion in relation to the research questions and relevant literatures.

4.2 Presentation and Analysis of the Results

This section is devoted to the presentation and analysis of results of the major study based on the conceptual model and the research questions under eight sub-sections. The first sub-section presents the demographic characteristics of the respondents. The second sub-section describes the findings related to the practical delivery of the plasma-channeled English language instruction, such as, the plasma teachers' ways of delivery, classroom English teachers' roles, students' participation, and arrangements made for using plasma TV program in teaching English language. The third sub-section discusses results on what the technological pedagogical content knowledge of English language teachers likes and the application of this knowledge in the plasma-channeled English lessons. Results related to the nature of televised activities (content of screened lessons) are presented in the fourth sub-section. The fifth and the sixth sub-sections respectively present data related to major problems/challenges students and English language teachers encountered in using the plasma-channeled instruction, and whether or not improvements have been made to overcome those problems. The seventh sub-section discusses results connected to the distinction between the terminated and improved plasma-based English language teaching. The last sub-section deals with the domino effect and overall effectiveness of the practice of the plasma-channeled English language instruction.

It should be remembered here that the presentation and analysis of quantitative data are followed by qualitative data (the data obtained though observations and questionnaires are presented and analyzed first and followed by data obtained other instruments). That is, the collection and analysis of quantitative data precedes the collection and analyzing of qualitative data.

4.2.1 D emographic Characteristics of Respondents

Both preparatory students and their English language classroom teachers in the five sample schools were requested to fill-in questionnaires. The questionnaires were similar in structure and content, but some items were worded and added considering issues related to the respondents. They basically covered background of the respondents, activities concerned with the plasma TV presenters, classroom teachers and students, respondents' perceptions on the nature of plasma-channeled English language activities, the technological pedagogical content knowledge of the classroom teachers and plasma-mode ELT results.

The first part of the questionnaires for students and English language teachers sought information on the respondent's personal data, such as sex, years of experience with the plasma instruction and the like. Five hundred student respondents and fifty English language teachers were asked to fill-in the required information or to tick in the appropriate boxes. From the distributed questionnaires, 472 useable students' responses with 94.4% response rate, and the entire teachers' responses to questionnaire were collected. In analyzing and discussing of data, only valid results were used, missing values were disregarded. For this reason, the total number of respondents might be varied. Table 4.1 below summarizes the respondents' background information.

Table 4.1: Respondents' Background Information

S/No	Students' Characteristics	n (%)	Teachers' Characteristics	n (%)
1	Sex:		Sex:	
	Female	216(45.8)	Female	13(26)
	Male	256(54.2)	Male	37(74)
2	Grade level:		Teaching Experience:	
	Grade11	183(38.8)	1-5 years	2(4)
	Grade 12	289(61.2)	6-10 years	10(20)
			11-15 years	20(40)
			16-20 years	7(14)
			> 20 years	11(22)
3	Years learnt via plasma TV:		Years taught via plasma TV:	
	1 year	300(63.6)	1 year	—
	2 years	117(24.8)	2 years	8(16)
	3 years	46(9.7)	3 years	20(40)
	4 or more years	9(1.9)	4 years	14(28)
			5 or more years	8(16)
4	Watching TV at home:		Qualification:	
	Yes	425(90.6)	BA/BED	35(70)
	No	44(9.4)	MA/MSc	15(30)
			Others	—

As shown in Table 4.1 above, 54.2% of the students were male while 45.8% of them were female. The majority of these participants were from grade 12(61.2%) while participants from grade 11 constituted 38.8%. While 63.6% of the student respondents learnt English via plasma TV for one year, 24.8% of them passed though the medium for two years in their previous grade levels and 9.7% of them for three years. The majority of the student respondents (90.6%) reported that their parents owned TV, and had sometimes exposure of watching TV programs (e.g., news, film, etc.) in English language at home.

Teacher respondents consisted of 74% males and 26% females and the majority of them responded that they had experience of teaching English through plasma TV (40% taught English though the medium for 3 years, and 28% of for 4 years). From the total of teacher respondents, 70% were first degree holders while respondents with second degree consisted of 30% and most of them had more than 10 years teaching experiences (40% of them between 11 and 15 years and 22% of them above 20 years teaching experiences).

In addition to student and teacher respondents, the study involved school directors and the plasma-based instruction experts. That is, school directors

and plasma television experts were interviewed to triangulate the data obtained through the questionnaires.

4.2.2 The Delivery of the Plasma-channeled English Language Instruction

In light of the first research question, an attempt has been made to investigate how the plasma-channeled English language instruction was delivered. In doing so, observations were made to look into what the plasma-based ELT like. What is more, the respondents were asked issues related to the plasma teachers' ways of delivering the lessons, the roles of the classroom teachers, the level of students' participation, and the arrangements made for using plasma TV program in teaching English language.

To that effect, observational data were compiled and percentages of the results were calculated. In the questionnaires, both student and teacher respondents were also asked to rate the roles of the plasma presenters, classroom teachers and students using a five point rating scale measurements (4=Always; 3=Sometimes; 2=Undecided; 1=Rarely; 0=Never) with 0 being to the nil rate and 4 being to the highest rate. The data obtained were keyed in and analyzed using SPSS software. Finally, the mean scores based on the five point scales (mean scores fall between 0 and 4) were calculated. Then, interpretations are made taking the mean score '2' as a reference point by averaging the scales (the value 2 is considered as hypothesized mean against which the mean ratings of the respondents are checked for their significance using the one sample t-test). This means if the mean rating of the respondents is significantly higher than the hypothesized mean (the midpoint on the scale), then it is assumed that favorable responses are obtained for a particular item and vice versa. In addition, interviews were made and documents were reviewed to counter check the data obtained using the observations and questionnaires. The results of responses are presented below.

4.2.2.1 The Plasma Presenters' Ways of Delivery

During the study an attempt was made to observe how the screen teachers delivered lesson to the class (please see Appendix H). It was observed that plasma teachers sometimes demonstrated students how to do the activities, told them the ways(strategies) to develop their language skills, and allowed the classroom teachers to assist the students(please also see Appendix E). However, students were provided with insufficient time to perform screened activities. Students were also observed struggling to comprehend the instructions forwarded by the plasma teachers; before doing the activities, they asked their classmates in Amharic language for clarification about the instructions. The classroom teachers often also repeated what the screen teachers presented and some of them wrote the plasma teachers' speeches on the blackboard.

Apart from the observational data, in the questionnaires, students and English teachers were asked to rate the activities employed by the screen teacher. The following responses were obtained.

Table 4.2: Responses of Students and Teachers towards the Plasma TV Presenters' Ways of Delivery

Item No	Details	Test Value = 2							
		Students' responses				Teachers' responses			
		N	Mean	SD	t	N	Mean	SD	T
1	S/he presents the lessons at a normal speed.	472	2.00	1.40	-.07	50	2.48	1.34	2.53
2	S/he explains lessons in clear and understandable manner.	472	2.50	1.30	8.43*	50	2.80	1.26	4.48*
3	S/he demonstrates for students how to do the activities/exercises.	472	2.42	1.42	6.49	50	2.62	1.38	3.17**
4	S/he tells students the ways (strategies) to develop language skills.	472	1.81	1.41	-2.98	50	2.76	1.32	4.08*
5	S/he allows the classroom teacher to assist the students.	471	1.64	1.40	3.51	50	2.80	1.26	4.48*
6	S/he gives students sufficient time to perform activities/ exercises.	471	2.24	1.46	3.56	50	2.02	1.49	.10
	Grand Mean		**2.20**				**2.58**		

Notes: 0=Never; 1=Rarely; 2=Undecided; 3=Sometimes; 4=Always; $p < .001$; ** $p < .005$*

As shown in Table 4.2, even though the mean-scores of most of the teachers' responses towards the plasma teachers' presentations are marginally above the median point (i.e., 2 along the five points scale), most of the students' responses are at the median point. That is, student respondents rated that the plasma teachers' pace of presentation, potential of demonstrating how to do activities and showing the strategies that help the students' language skills development were average. The classroom teachers, however, rated as these were marginally above the average. Moreover, most of the teachers replied that they were allowed to assist the students (*Mean= 2.80; t= 4.48, p < .001*). However, students responded that plasma teachers infrequently allowed their English teachers to assist them (*Mean*=1.64). Both teachers and students indicated that insufficient time was given to perform televised activities; that is, the majority of them replied that the screen teacher gave students inadequate time to perform activities. Furthermore, the mean ratings of students (2.50) and teachers (2.80) regarding the plasma presenters' explanations are significantly greater than the hypothetical mean (students, *t= 8.43, p < .001;* teachers, *t= 4.48, p < .001*).

Student respondents were also interviewed to have their views on the plasma presenters' ways of delivery (please see Appendix I1, interview item 3), almost all of the students uttered that the ways of delivery were good, but it was very difficult for them to follow the plasma teachers due to their speed of presentation, their pronunciation and the insufficient time allocated to perform activities. For example, the interviewees had to say the following (where S_1 = Student $_1$; S_2 = Student $_2$; S_3 = Student $_3$, etc.):

The approach is good, but it needs your good English language background. If you have good English background, you like it. If not, you are confused [S_6]... It is good, but the language is difficult to understand [S_8]....The plasma presenters' way of presentation is good, but their language is difficult to understand [S_9]... I have two opinions, negative and positive. Their accent is difficult for me to listen. The other is their speed. It does not go with my pace of learning. The advantage is animation and demonstration activities are presented [S_{10}].... I personally prefer the face –to-face teacher. The plasma TV instruction does not take in consideration our level [S_{11}]....The plasma teachers' way of delivery is good for fast learners. This is because the plasma teachers are very fast. Their accent is difficult to understand. The concepts are also difficult to comprehend [S_{13}]....I think that it is good, but the presenters were a little bit speedy. Most of the students are not interested to learn by plasma because of their poor English background [S_{15}]....

The aforementioned results indicate that the screen teachers' ways of delivery tended to mismatch with students' level of comprehending the language of plasma presenters so that most students cannot grasp screened lessons. The time given to perform televised activities has also been found to be insufficient. As a result, the plasma instruction seemed to hamper the teaching- learning process.

4.2.2.2 The Roles of Classroom Teachers

As Spodark (2001) asserts, the classroom teachers, in televised language teaching, function as a diagnostician, midwife, or coach. Chiefly, as to Tam (1997), in technology based lessons, the roles of the classroom teacher are to pass unobtrusively from group to group, forestalling possible breakdowns in communication caused by students having insufficient language to realized intended meanings. Moreover, as was discussed in Chapter 2, the classroom teacher serves as bridge between a televised teacher and the students. He or she is responsible to create classroom situation that promotes active participation of students using the medium. In so doing, the classroom teacher introduces the TV lessons that learners are going to be aired, encourages students to watch the programs carefully, assists learners whenever in need

of help and recaps the televised lessons. The mean score of students' and teachers' responses in relation to this are presented in the table below.

Table 4.3: Students' and Teachers' Responses towards the Roles of Classroom Teachers

Item No	Details	Test Value = 2							
		Students' responses				Teachers' responses			
		N	Mean	SD	t	N	Mean	SD	t
1	S/he explains the objectives of the daily plasma lessons.	472	1.99	1.56	-.09	50	2.72	1.20	4.26*
2	S/he encourages students to watch the programs carefully.	471	2.73	1.40	11.30*	50	2.76	1.38	3.90*
3	S/he arranges the class to do in groups and/or pairs as per the plasma presenter's instructions.	472	2.93	1.22	4.83*	50	2.88	1.06	5.86*
4	S/he assists students when (ever) they are in need of help.	468	2.47	1.42	7.10*	50	3.38	0.97	10.10*
5	S/he generates tasks which students can do as a result of watching the program.	469	2.15	1.40	2.30	50	3.00	1.12	6.29*
6	S/he recaps the televised lessons by integrating them with the textbook.	470	2.21	1.49	3.07	50	2.76	1.38	3.90*
	Grand Mean		**2.41**				**2.92**		

Notes: 0=Never; 1=Rarely; 2=Undecided; 3=Sometimes; 4=Always

** $p < .001$*

The mean score for the first item in Table 4.3 showed that even though English teachers rated that they sometimes explained the objectives of the plasma to the students (*Mean= 2.72; t= 4.26*), nearly the medium mean value of students' response(*Mean= 1.99; t=-.09*) indicated that their English teachers failed to do this. Both of the respondents rated that classroom English language teachers encouraged students to watch televised lessons (the mean scores showed nearly above the median point). In addition, above the hypothetical mean scores of teachers (*Mean= 2.88; t= 5.86, $p < .001$*) and students (*Mean= 2.93; t= 4.83, $p < .001$*) indicated that classroom teachers arranged the classes to do plasma-based lesson as per the plasma teachers' instruction.

Though students reported that the ability of their English language teachers to generate tasks which students can do as a result of watching the program and to prepare supplementary activities other than the plasma lessons was medium, the teachers indicated that they sometimes did these. What is more, the higher mean value of teacher respondents (*Mean= 3.38; t= 10.10, p < 001*) showed that they assisted students whenever they were in need of help. The mean scores of students' responses (*Mean= 2.47; t= 7.10, p < .001*) also proved that their teachers performed this. Furthermore, though teachers rated as they recapped televise lessons by integrating them with the textbooks, they employed effective teaching styles and technical skills to utilize the plasma-channeled English language instruction, students rated as their English language teachers' roles to do this were middling.

In sum, the aggregate mean score of teachers indicated that their roles to practice the plasma-based English language instruction is above the median point (*Mean= 2.92*). On the other hand, the aggregate mean score of students' response showed closer to the median point (*Mean= 2.41*). That is, though classroom English teachers reported they played their roles properly, students indicated that the roles of their teachers were not satisfactory enough. Responses of teachers and students to interview items seemed to support the same (please see Appendix I1 and I2). Almost all classroom teachers replied that they played their roles before, during and after the transmission properly. The majority student interviewees, contrary, mentioned that most of the classroom teachers turned on the TV, sat/stood at the back and watched the programs with the students. This tended to have been shared by the classroom observations, most of the teachers were observed that they stood at the back of the class and watched the televised lessons throughout the transmission. Even instead of guiding or assisting the students to perform the exercises as per the screen teachers' instructions, some classroom teachers told the students as they would get the answers of the exercises from the screen (please see Appendix F, Diary 17). This shows that students have been provided with less support from their classroom teachers while they were learning through plasma.

4.2.2.3 Students' Participations in Plasma-channeled English Lessons

As has been mentioned so far, the plasma mode instruction is designed to facilitate learners' knowledge construction. Students are provided with different inputs (explanations and tasks) by the plasma presenter, which assist them for their knowledge construction. Students interpret these inputs in ways that are meaningful and personal to them as individual mediator and selecting relevant information (visual and verbal), organizing the incoming information into a coherent structure and integrating various sources of the incoming information. Learners are expected to recognize, organize, interpret and practice the plasma teachers' overview presentations.

In televised instruction, students are expected to actively participate, to give attention to the concepts delivered by the screen teacher and to perform activities as they are instructed. The plasma-channeled instruction also demands the students' active involvements before-, while- and post- the transmission (MoE, 2006a, 2006b). Specially, in the plasma–channeled English language instruction, students are expected to improve their language skills when they actively involve themselves in the televised lessons.

During the classroom observations, students were not seen to perform the aforementioned actions (please see Appendix H in Part II). Some o f the students were reluctant to participate actively during the plasma TV instruction as far as the classroom observations are concerned. Even if they were asked to perform exercises based on the televised lessons, some of them chatted with nearby students issues out of the lessons and gazed at the countdown clock on the screen time to time. When the screen teacher started giving answers to the activities, everybody was in hurry to copy down them. Some teacher interviewees, similarly, reflected that students were passive during the plasma lessons. They did not actively participate.

The students' and teachers' responses with relation to students' participations during televised English lessons are also presented in the table underneath.

Table 4.4: Students' and Teachers' Responses towards the Participation of Students in Televised Lessons

Item No	Details	Test Value = 2							
		Students' responses				Teachers' responses			
		N	Mean	SD	t	N	Mean	SD	t
1	Students go through the lessons before hand in their text book that they are going to learn via the plasma.	471	1.59	1.40	-6.37	50	2.50	1.13	3.13**
2	Students pay attention to the presentations on the plasma TV and/or the classroom teacher's explanations.	472	2.93	1.22	16.69*	50	2.80	0.99	5.72*
3	Students make effort to do the tasks as instructed by the plasma teacher and/or the classroom teacher.	470	2.97	1.21	17.35*	50	2.74	0.97	5.42*
4	Students ask the classroom teacher for clarification when they face difficulties to do the tasks or if the plasma presenter's explanations are not clear.	472	2.93	1.22	16.69*	50	2.96	1.07	6.35*
	Grand Mean		**2.61**				**2.75**		

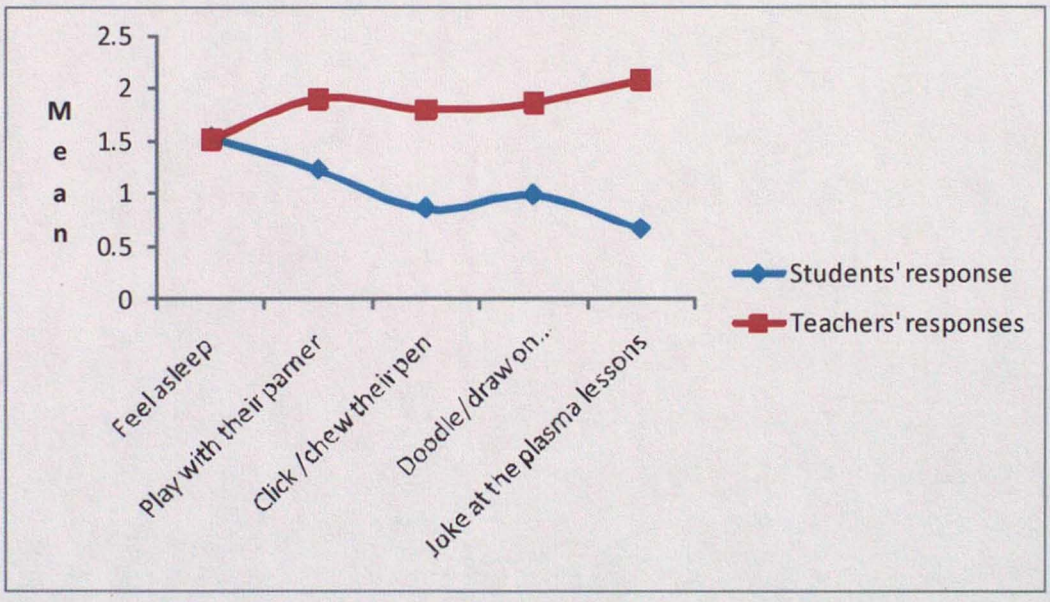
Notes: 0=Never; 1=Rarely; 2=Undecided; 3=Sometimes; 4=Always

** $p < .001$; ** $p < .005$*

As can be seen from the above table, though the mean score of students (*Mean = 1.59; t = -6.37*) indicated that students were not accustomed to going through the lessons beforehand in their text book that they were going to learn via the plasma, teachers rated as their students had such a custom (*Mean = 2.50; t = 3.13, p < .005*). The mean value of students and teachers, moreover, showed that students pay attention to the plasma-channeled English language lessons (*Mean = 2.93; t = 16.69, p < .001*- students and *Mean = 2.80; t = 5.72, p < .001* - teachers). They also made efforts to perform the broadcast lessons; that is, most of students (*Mean = 2.97; t = 17.35, p < .001*) and teachers (*Mean = 2.74; t = 5.42, p < .001*) rated that students made the necessary effort to do the tasks as instructed by the plasma teachers and/or the classroom teachers. Students also made effort to ask for

clarification when they face difficulties to do plasma lessons. The overall mean scores also revealed that the participation of students in televised English lessons is above the median score. The results obtained through the observations seemed to support this (please see Appendix H part II).

What is more, both 'plasma students' and their English language teachers were requested to rate the attentions students show while watching the plasma-based English lessons. They were asked whether or not students felt sleepy, play with their classmates, doodle/draw on their table/exercise book and jock at the plasma lessons. The majority of respondents reported that students did not show or rarely show them while learning English through plasma as illustrated in Figure 4.1 below.



Notes: 0=Never; 1=Rarely; 2=Undecided; 3=Sometimes; 4=Always

Figure 4.1: Students' and Teachers' Responses on the Attentions Students Show while Watching the Plasma-based English Lessons

The data presented in the figure above revealed that students were not involved those actions which hampered their active participations; that is, lower mean-scores was observed from students and teachers. The observational data also supported this (please see Appendix H Part II). From

the above results it may be said that the participation of students during the televised English instruction seems encouraging.

4.2.2.4 The Arrangements made for using the Plasma-channeled English Language Instructions

Administrative and technical support services are critical to the successful integration of ICTs into teaching and learning processes (Sife, Lwoga and Sanga, 2007). Adequate technical supports ensure that equipment is largely serviceable with procedures of preventative maintenance and timely repair in place (Hall, 2010). In ITV environments, for example, when schools had problems with receiving transmission, it can cause a long duration of "down time" in remote sites which affect student attitude and motivation (Kobayashi, 2008). Bearing this in mind, in addition to activities concerned with the plasma presenters, classroom teachers and students, an attempt has been made to investigate the arrangements made for the effectiveness of practicing plasma-channeled English instruction. Observations were made and experts were asked about the arrangements made for effective utilization of the program. School directors were also interviewed whether or not their schools were provided with the necessary supportive services to employ the plasma instruction. Moreover, teachers were asked if those arrangements were made to them. The following results were obtained.

During the observations, an attempt was made look into the physical settings of the school environments, such as seats of the students, position of the plasma screen, and scene/background of the classrooms(please see Appendix H part I for results). It was observed during the classroom observations that seats were not suitable for group and/or pair works (66.67%). That is, all the seats were combined desks which are not suitable to facilitate televised English lessons. There was also no enough space between each row to facilitate the lessons (please see Appendix D, Pic 3). The results of the observation also revealed that the plasma TV was located in a position convenient for every student (83.33%). Moreover, students were able to view the plasma screen with reasonable viewing distance (96.67%).

However, front bench students were extremely closed to the plasma screen and those who sat the corner of the classrooms watched diagonally the screen. It was also found that most of the classrooms had shiny nature which was reflected onto the plasma screen (53.33%) (please also see Appendix D, Pics 5 and 7). Overall, it seemed that the scenes of the classrooms are appropriate enough for the televised instruction as far as the classroom observations are concerned. The observational data, however, revealed that arrangements were not made to students and teachers to access the plasma manuals and soft and/or hard copy of the programs (please see Appendix H Part IV). It was observed that even though English teachers were provided the new textbooks and teacher's guide, they did not access the plasma manuals and soft and/or hard copy of the programs.

Towards the arrangements made to employ the plasma-based instruction, experts pointed out that the program was planned at federal level, Ministry of Education in collaboration with the then Ministry of Capacity Building planned the plasma program in 2003/2004. After planning, task forces were established to facilitate the purchase and installation of plasma television, and the production of plasma-based lessons. Then after satellite TV lessons have been delivered to governmental secondary schools in the country through a closed-circuit system using Very Small Aperture Terminal (VSAT) satellite dish. Each school has received the lessons in 12 channels. If the lessons have not been properly broadcast or if there has been channel malfunctions, schools have been provided with the necessary help from the broadcasters. Broadcasters have also prepared schedules, plasma manuals and trainings and arranged to be used by the reception ends (please see Appendix I4).

To counter check the data obtained from experts, directors of 'plasma schools' were interviewed (please see Appendix I3). Directors said that during the commencement of the program, plasma TV screens, satellite dish receivers and networks were installed with the support of federal level. At that time their schools were also received plasma guide in soft copy by CD-ROMs and the timetables were arranged beforehand. What is more, whenever they

faced technical faults, they were provided from the broadcast center. Nowadays, the schools have also been provided with the new plasma guide and schedules, but teachers were not seen to use them properly.

Directors, furthermore, were interviewed if their schools were provided with support services such as, supervision (inspection), training, maintenance, experience share and the like from implementing bodies (broadcasters) and/or associate organizations (regional, zonal or *woredal* bodies). They pointed out that the supervisors from the education bureau, sub-cities and *woredas* visited their school. However, these supervisors evaluated the overall teaching learning process. They did not give them supportive services related to the plasma TV instruction, even their evaluation from did not deal with plasma. This was because the supervisors did not have enough knowledge about plasma. Directors added that their schools have not been given any training or workshop about the new plasma programs and any technical supports they needed to.

Apart from the experts and directors, English language teachers were interviewed about the preparations of the program and the arrangements made to use it effectively. Teachers pointed out the following (please see Appendix I2) - where T_1 = Teacher $_1$; T_2 = Teacher $_2$; T_3 = Teacher $_3$, etc.:

... We don't have plasma manual and others which support the televised lesson. In the past we had, but now we don't have. We have the book and the program [T_2]... They [the broadcasters] told us how the program was planned. Nowadays, we don't have any information. But nothing is telling us about how to deliver it [T_6].... At very early time, in 2003/2004, at the beginning there were [plasma] teachers' guides. Then after, no [plasma] teachers' guide [T_7]... To your surprise, in this year plasma has come again, but we have the textbook lately. When we started the first semester, we were confused. We were not given any direction. We were not provided the plasma guide, the time table and others. We were not give any orientation how it is different from the old one. Even in this semester, we haven't properly had the new plasma guide and time table [T_8].... We haven't provided with any support. Even, no one monitors you whether you use it or not [T_9]. The only thing they [broadcasters] gave was the guide. Even they didn't gave us any training, how to operate. You see, most of teachers have a problem of that[T_{10}]....

From the classroom teachers' responses it can be inferred that the arrangements made at school levels did not seem to be as it is required. Classroom English teachers did also not have clear information how the plasma-channeled instruction was planned and why it was preferred to conventional instruction.

The above results indicated that even though the preparations of plasma programs have been made and ready to use at the schools level, the required arrangements have not been made to frontline workers (English teachers and students) when using the plasma-channeled English language instruction.

4.2.3 Results Concerning Teachers' Knowledge of TPACK

Considering the TPACK framework discussed in Chapter 3 and adapting factor matrix of TPACK as identified by Schmidt et al (2009), classroom observations were carried out and teacher respondents were requested to rate their technological pedagogical content knowledge of the plasma-channeled English language instruction. The results are presented as follows.

During the classroom observations, an attempt was made to observe the classroom teachers' application of TPACK in their plasma-channeled English language instruction. As indicated in Appendix H Part II, the results revealed

that teachers' knowledge of the technology, such as, turning on/off, muting, and searching for the appropriate channel, adjusting the required volume and contrast and so on was found to be average. Even some of them were seen requesting their students to give them a hand in order to search for the appropriate channel and to adjust any technical problems they encountered. Nevertheless, they were observed striving to apply their subject matter and pedagogical knowledge. That is, from time to time they strived to impart the subject matter clearly, to employ the appropriate teaching styles, to prepare students for the language items they were supposed to learn, and to assist students when(ever) they were in need of help.

In technological based instructions, teachers should have knowledge about how technology may be used to provide new ways of teaching content (technological content knowledge). Furthermore, teachers should have knowledge of using a specific technology that change the way learners practice and understand concepts in a specific content area (technological pedagogical knowledge). When using technology for teaching and learning, it also demands understanding and negotiating the relationships between content knowledge, pedagogical knowledge and technological knowledge (technological pedagogical content knowledge), as discussed in the review of related literatures part. Observations results in relation to the application of these knowledge areas in the real plasma-based instruction showed that teachers infrequently applied them (please see Appendix H Part II). That is, classroom teachers rarely demonstrated their knowledge of using the plasma-based instruction and employed the plasma-based instruction effectively to different teaching activities. What is more, they hardly ever can teach lessons that appropriately combine English language contents, the plasma-based instruction and teaching approaches (they seldom used the plasma-based instruction in their classroom that enhances what they teach, how they teaches, and what students learn).

In addition to the observational data, the classroom teachers' self-report data towards their technological pedagogical content knowledge are presented in the table below.

Table 4.5: Responses of Teachers towards their Technological Pedagogical Content Knowledge of the Plasma-based Instruction

Item No	Details	Test Value = 2			
		N	Mean	SD	t
	Technology Knowledge (TK)		**2.18**		
1	I know how to solve my own technical problems of the plasma-based instruction.	50	2.20	1.41	1.00
2	I have the technical skills I need to use the plasma-based instruction.	50	2.08	1.37	.41
3	I keep up with important new technologies.	50	2.26	1.44	1.28
	Content Knowledge (CK)		**3.01**		
4	I have sufficient knowledge about the subject matter/English/.	50	3.00	1.33	5.34*
5	I have various ways and strategies of developing my understanding of the language.	50	3.02	1.27	5.68*
	Pedagogical Knowledge (PK)		**2.96**		
6	I know how to assess students' performance in a classroom.	50	3.08	1.28	5.99*
7	I can adapt my teaching based upon what students currently understand or do not understand.	50	2.90	1.31	4.85*
8	I can adapt my teaching style to different learners.	50	2.86	1.32	4.59*
9	I can assess student learning in multiple ways.	50	2.98	1.33	5.20*
10	I can use a wide range of teaching strategies in a classroom setting.	50	2.82	1.27	4.56*
11	I know how to organize and maintain classroom management.	50	3.12	1.24	6.39*
	Pedagogical Content Knowledge (PCK)		**3.02**		
12	I can select effective teaching approaches to guide student thinking and learning in English.	50	3.02	1.20	5.99*
	Technological Content Knowledge (TCK)		**3.22**		
13	I know about the plasma-based instruction that I can use for understanding and performing English lessons.	50	3.22	4.47	1.93**
	Technological Pedagogical Knowledge (TPK)		**1.75**		
14	I know how the plasma-based instruction is used to teach English language	50	1.62	1.26	-2.13
15	My teacher education program has caused me to think more deeply about how the plasma-based instruction could influence the teaching approaches I use in my classroom.	50	1.64	1.41	-1.80
16	I am thinking critically about how to use the plasma-based instruction in my classroom.	50	2.30	1.33	1.60
17	I can use the plasma-based instruction to different teaching activities.	49	1.43	1.34	-2.99
	Technological Pedagogical Content Knowledge (TPACK)		**1.59**		
18	I can teach lessons that appropriately combine English language contents, the plasma-based instruction and teaching approaches.	50	1.62	1.54	-1.75
19	I can use the plasma-based instruction in my classroom that enhances what I teach, how I teach, and what students learn.	50	1.64	1.47	-1.73
20	I can use strategies that combine content, the plasma-based instruction, and language teaching approaches that I learned about in my coursework.	50	1.52	1.37	-2.47

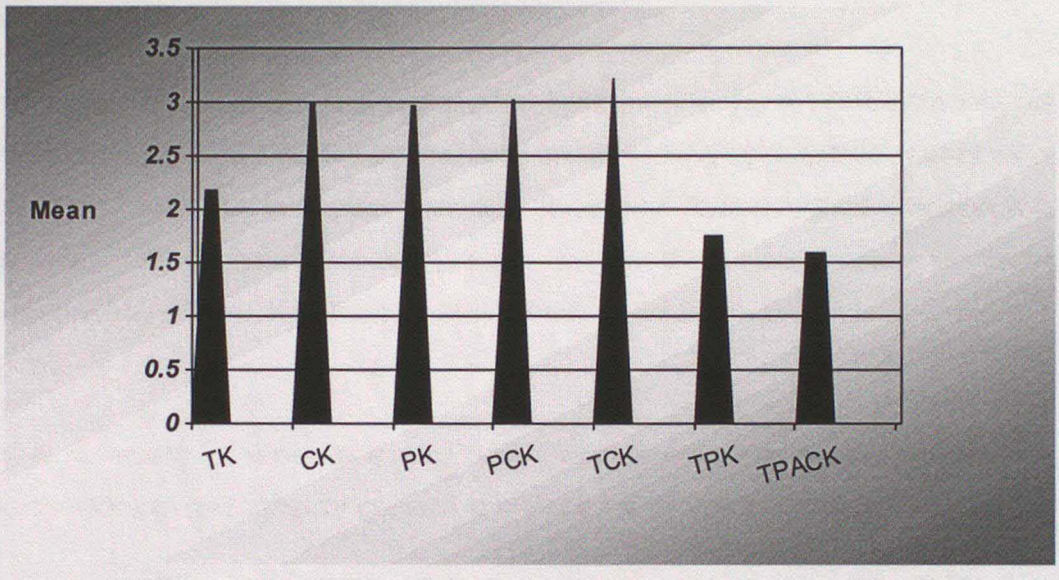
*Notes: 0= Strongly Disagree; 1=Disagree; 2=Undecided; 3= Agree; 4= Strongly Agree; * $p < .001$; ** $p < .005$*

As shown in Table 4.5, the first knowledge domain, technology knowledge (TK), refers to understanding how to use the plasma-based instruction in teaching English language. Classroom English teachers rated that they have average technological knowledge. That is, their responses towards their knowledge of solving their own technical problems of the plasma-based instruction, having the technical skills they need to use the plasma-based instruction and keeping up with important new technologies found to be nearly at the median point (i.e., 2 along the five points scale). The above average grand mean scores of their responses (*Mean= 3.01*) and (*Mean= 2.96*) for the second knowledge domain, content knowledge (CK), and the third sub-domain, pedagogical knowledge (PK) respectively indicated that most teachers knew about the content they were going to teach and they had fundamental knowledge of methods and process of teaching, such as classroom management, assessment, lesson plan development, and student learning. The respondents' responses for the fourth knowledge domain, pedagogical content knowledge (PCK), also revealed that they had higher knowledge of the content knowledge that deals with the teaching process (*Mean= 3.02; t= 5.99, p < .001*). Similarly, the mean score for the fifth knowledge domain, technological content knowledge (TCK), showed that teachers' understanding of how using the plasma-based instruction can change the way learners understand and practice concepts in a specific content area is significantly high(*Mean=3.22; t= 1.93, p < .001*).

However, respondents' reply to their technological pedagogical knowledge (TPK) which refer to their knowledge of how the plasma-based instruction can be used in their teaching, how to use the plasma-based instruction in their classrooms and the use the plasma-based instruction to different teaching activities were slightly below the median point. That is, the mean ratings of respondents were not significantly higher than the hypothesized mean. The aggregate mean score of teachers' response also showed marginally below average (*Mean= 1.75*). What is more, respondents' reactions towards the final knowledge domain – the total package – that refers to teachers' intuitive

understanding of the complex interplay between the three basic components of knowledge (CK, PK, TK) by teaching content using appropriate pedagogical methods and technologies revealed their low technological pedagogical content knowledge. This is proven by teachers' responses to items representing TPACK (*Mean=1. 59*) which is inclined to below the median point.

The summary of responses of English language teachers concerning their technological pedagogical content knowledge is illustrated below.



Notes: 0= Strongly Disagree; 1=Disagree; 2=Undecided; 3= Agree; 4= Strongly Agree

Figure 4.2: Grand means of the Technological Pedagogical Content Knowledge of Classroom English Language Teachers

In sum, from the teachers responses to questionnaire, it can be said that classroom teachers' knowledge of subject matter (English language), pedagogy (how to teach the language), pedagogical content (the fused between content and methodology) and technological content (how educational technologies are used to provide new ways of teaching language skills and elements) are found to be worth mentioning. On the other hand, their technological knowledge (teachers' ability to use or manipulate the plasma TV for instructional purposes), technological pedagogical knowledge

(the ability to creatively use the plasma TV in a pedagogical context), and technological pedagogical content knowledge (the complex interrelationship between teachers' use of the plasma TV, instructional methods, and understanding of the subject matter) are found to be minimal.

The data obtained through the interview items also supported this. All respondents were interviewed whether or not classroom teachers were competent enough to use the plasma TV for instructional purposes. Most of the interviewees articulated that classroom teachers lacked knowledge of TPACK (ability to teach lessons that combine English language contents, the plasma-based instruction and teaching approaches appropriately). For example, the subsequent responses were obtained (where S_1 = Student $_1$; S_2 = Student $_2$; S_3 = Student $_3$, etc. and E_1 = Expert $_1$; E_2 = Expert $_2$; E_3 = Expert $_3$):

> *...They have not helped us. They turned on the TV and watched with us [S_{11}]...Teachers do not have any background about how to teach using plasma. They were not trained the use of the technology in their trainings. They only know talk and chalk [D_{10}]. They have lack of training. They don't have in-depth knowledge of technology based instructions-the plasma television and any electronics media. There is also a kind of frustration to use technology in case of some teachers [E1]. You see, in ICT based instruction, the classroom is a facilitator. But in our case teachers fear that the technology replaces them. This is an attitudinal problem. There are teachers who interfered with the plasma; some teachers are teaching while the plasma lessons are underway [E2].*

In order to generate data regarding the classroom teachers' background knowledge of TPACK, teachers in the questionnaire were asked. They were asked about the number of courses they took in their teacher education that focus on instructional technologies. The following results were obtained.

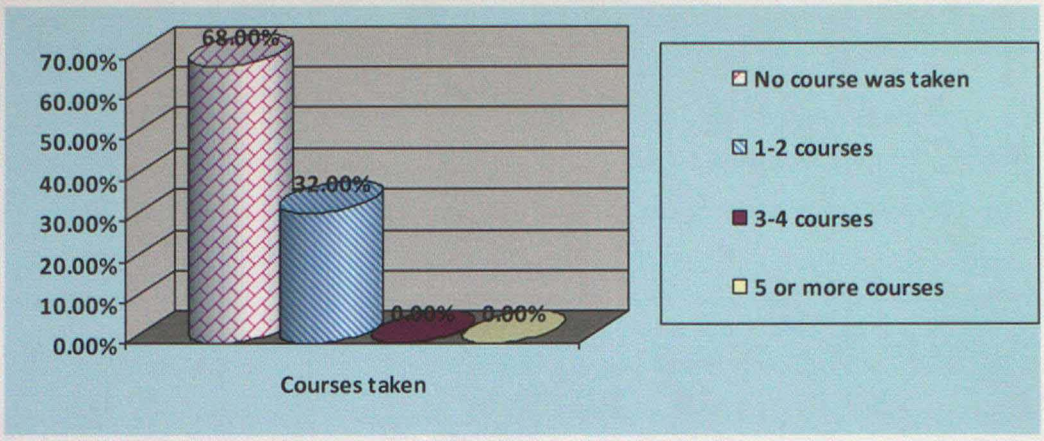


Figure 4.3: Number of Courses Teachers took that Focus on Instructional Technology

As shown in the figure above, most of the teacher respondents (68%) replied that they did not take any courses in their teaching training that focused on the use of technology for language teaching though 32% of them responded that they took one to two courses in their trainings.

Responses of teachers to one of the open-ended items seemed to strengthen this (please see Appendix G2). It reads,

> *Any of the courses we teachers took while we were trained to be teachers of English were not related to plasma and its application. As a result, we face all immense of problems… And I do not think most teachers are able to fill this wide gap(discrepancy). Nor we are given any training once we are made to use that technology….*

Moreover, teachers were asked whether or not they were given on-job training related to the utilization of plasma TV programs. As illustrated in Table 4.6 below, even though a few classroom English language teachers (28%) responded that they got chance to take on-job training on the utilization of plasma TV program in the form of workshops and seminaries, most of them (72%) replied that they were not provided with any on job-trainings related to the utilization of the plasma TV programs. Those who were provided with on-job trainings mentioned that the training helped them to employ the plasma-channeled English lessons effectively.

Table 4.6: On-job Trainings Offered to Teachers on How to Utilize Plasma TV Programs

Question	Yes		No		Total
	F	%	F	%	
Have you ever received any on-job training related to the utilization of plasma TV programs?	14	28	36	72	50

To fill the knowledge gaps they have, in the questionnaire, teachers were asked about the type of training they dream of. They suggested trainings like how to teach students during televised lessons, how to manipulate the plasma, methodology of ICT-based language teaching, how to assist students to understand plasma lessons, and school based English methodology.

Besides the data obtained through the observations, questionnaire and interviews, some documents such as secondary school English language teacher preparation syllabi (course descriptions); TESO and 'Add-on' documents were reviewed. This was particularly done in order to compare what was proposed and mentioned in the documents with what actually occurred in the field. As far as the documents are concerned, content knowledge as well as pedagogical knowledge was given due attention, teacher education instructions trained teachers both subject matter knowledge and pedagogical knowledge. That is, the TESO document proposed that English language teachers for secondary schools of the country are expected to complete 44 major, 18 minor, 37 professional and 13 practicum courses. It was estimated that trainees acquired their knowledge of subject matter taking the major and minor area courses along with pedagogical courses (MoE, 2003). The new mode of secondary teacher education called "Post Graduate Diploma in Teaching" (PGDT) has also covered three years of subject matter (content area) and one year pedagogical trainings (MoE, 2011b). English language teachers are expected to learn (master) the content of English language (language skills and elements) in their three years university life and

if they are interested to be English teachers in secondary schools of the country they are required to add pedagogical courses for a year.

From the results, it can be inferred that even though new initiatives have been made using ICT for education and these technologies have changed the nature of the classroom, technological pedagogical content knowledge of classroom English language teachers and their application in the plasma-channeled English lessons were found to be minimal. This might be due to the teacher education programs in Ethiopia gave less emphasis on technological pedagogical content knowledge or teachers might not receive on-job trainings on ICT-based instructions. In fact, attempts have been made to include a course 'Information and Communication Technology' since the introduction of TESO in order to develop teachers knowledge of technology.

4.2.4 Results Related to Plasma-based Activities

The plasma television based-English language lessons in Ethiopia are organized around tasks to be performed in the target language. It integrates group activities, pair works and individual exercises. Students are provided with different explanations and tasks by plasma presenter. In the questionnaire, teacher respondents were requested to rate the nature of both the terminated and improved televised activities believing they have in depth knowledge and exposure of both the old and new plasma lessons. Students were also asked their replies on the nature of the improved televised activities since most of them are well aware of the new plasma lessons than the old ones. The responses are presented below.

Table 4.7: Views of Teachers on the Nature of the Terminated Plasma-based English Language Activities

Item No	The terminated plasma- based English language activities were:	Test Value = 2			
		Students' responses			
		N	Mean	SD	t
1	well organized.	50	2.30	1.27	1.68
2	interesting to learn English.	50	2.70	1.25	3.96*
3	covered skills that students need to practice.	50	2.46	1.31	2.48**
4	organized in a reasonable amount of time.	50	2.04	1.16	.24
5	easy to perform.	50	2.20	1.11	1.28
6	conducive to internalize newly introduced language.	50	2.52	1.09	3.37**
7	authentic - i.e. like real-life English.	50	2.48	1.27	2.68**
8	proper to the right level for students' current English ability.	50	2.12	1.37	.62
9	suitable for students' English language learning.	49	2.49	1.34	2.56**
	Grand Mean		**2.37**		

Notes: 0= Strongly Disagree; 1=Disagree; 2=Undecided; 3= Agree; 4= Strongly Agree

** $p < .001$; ** $p < .005$*

The hypothetical mean scores of the respondents for most of the items in the Table 4.7 show that the natures of the terminated plasma-channeled English language activities were good enough. That is, on average, considerable number of the respondents indicated that the activities were interesting to learn English(*Mean=2.70; t= 3.96, p < .001*); covered skills that students need to practice(*Mean=2.46; t= 2.48, p < .005*); conducive to internalize newly introduced language items(*Mean=2.52;t=3.37, p<.005*); authentic(*Mean=2.48; t=2.68,p<.005*); and suitable for student's English language learning(*Mean=2.49; t= 2.56, p < .005*). Nevertheless, they were not well organized, arranged in a reasonable amount of time, easy to perform, and proper to the right level for students' current English ability; the mean ratings of the respondents were not significantly higher than the hypothesized mean.

Teachers' and students' reactions to interview items also supported this finding (please see Appendices I1 and I2). Towards the nature of the terminated plasma-channeled English lessons, teachers and students expressed that the activities displayed on the screen were interesting and motivating, and they were presented in accordance with the teaching materials; however, they were difficult to understand by the students. Insufficient time was also given to perform the activities. Responses to open-ended items also support this. Respondents jotted down that the activities were very difficult to understand and to perform by slow or medium learners. They were appropriate to fast learners.

Apart from the terminated televised lessons, both plasma students and their English language teachers were requested to rate the nature of the new plasma activities which are currently in use. The following results were obtained.

Table 4.8: Views of Students and Teachers on the Nature of the Improved Plasma-based English Language Activities

Item No	Details	Test Value = 2							
		Students' responses				Teachers' responses			
		N	Mean	SD	t	N	Mean	SD	t-test
1	well organized.	472	2.04	1.25	.74	50	2.44	1.39	2.24**
2	interesting to learn English.	472	2.27	1.29	4.45	50	2.66	1.32	3.54*
3	covered skills that students need to practice.	470	2.04	1.23	.72	50	2.42	1.23	2.41**
4	organized in a reasonable amount of time.	472	1.97	1.20	-.57	50	2.14	1.41	.70
5	easy to perform.	472	2.07	1.21	1.26	50	2.14	1.20	.83
6	conducive to internalize newly introduced language.	471	2.23	1.26	3.99	50	2.40	1.21	2.33**
7	authentic - i.e. like real-life English.	472	2.11	1.31	1.86	50	2.46	1.31	2.48**
8	proper to the right level for students' current English ability.	472	1.99	1.91	-.12	50	2.20	1.36	1.04
9	suitable for students' English language learning.	472	2.13	1.32	2.13	50	2.38	1.31	2.06**
	Grand Mean		**2.09**				**2.36**		

*Notes: 0= Strongly Disagree; 1=Disagree; 2=Undecided; 3= Agree; 4= Strongly Agree; * p < .001; ** p <. 005*

Table 4.8 shows that the aggregate mean scores of the responses of both teachers and students were closer to the median point (the hypothetical mean). This indicates that students and teachers seemed to discomfort with the improved plasma-based English language activities. Concerning the improved televised activities, student interviewees mentioned that the activities are attractive and designed in conjunction with the instructional print materials. They also believe that these activities help them to develop their language skills, especially to promote listening and pronunciation skills. Nonetheless, they mentioned that the time given for doing the activities and taking notes was not sufficient. Experts (producers), contrary, said that sufficient time is allocated for activities in the improved plasma lessons than the terminated plasma-based lessons. They pointed out that an attempt has been made to make interactive the new plasma activities and to allocate enough time to perform them (8 to 10 minutes for an activity). Animations, simulations and demonstrations have also been included to make the activities attractive.

To triangulate the responses of students, teachers and experts, observations were made, and the contents of sample televised lessons were randomly reviewed. As the results in Appendix H Part II show, the demonstrative activities on the plasma screen were not difficult to be understood by preparatory school students as far as the minimum learning competencies stated in the syllabi are concerned. They are also easy to perform, covered the skills the students need to practice and are conducive to internalize newly introduced language. In addition to the classroom observations, in order to look into the time allocation and nature of the activities, 20 video of sample televised activities were randomly, using a lottery method, reviewed from the old and new plasma lessons as illustrated below.

Table 4.9: Time Allocations to Perform Plasma Activities

Grades	Unit–Episode (skills taught)	Time Allocation to Perform each Activity								
		A1	A2	A3	A4	A5	A6	A7	A8	Duration
Grade 11	**Old Plasma Lessons**									
	UN1-EP12(Writing)	3'	1'20"	2'	1'	5'	—	—	—	12'20"/30'
	UN2-EP3(Vocabulary)	4'	3'	1'	1'	2'	—	—	—	11'/29'20'
	UN3-EP6(Speaking)	1'	1'	1'	8'	5'	—	—	—	16'/29'20'
	UN8EP1(Reading)	2'	1'	1'	5'	1'	1'	—	—	11'/30'08'
	UN11EP5(Grammar)	1'30"	1'30"	2'	2'	1'	2'	1'	—	11'/27'05'
Grade 12	UN1EP10(Grammar)	3'	5'	4'	—	—	—	—	—	12'/30'
	UN3EP5(Vocabulary)	2'	1'30"	2'	45"	—	—	—	—	6'15"/27'
	UN5EP2(Reading)	1'30"	1'	1'	2'	1'	1'	1'	2'	10'30"/27'5"
	UN6EP9(Speaking)	2'	30"	—	—	—	—	—	—	2'30"/27'
	UN7EP19(Listening)	2'5"	30"	30"	2'5"	30"	2'5"	30"	10'	18'15"/28'5"
Grade 11	**New Plasma Lessons**									
	UN1-EP1(Learning Strategies)	4'	5'	—	—	—	—	—	—	9'/20'
	UN1-EP4(Reading)	2'	3'	3'	—	—	—	—	—	8'/22'24"
	UN2-EP18(Listening)	2'	3'	6'30"	3'	—	—	—	—	14'30'/24'
	UN2-EP24(Language Focus)	4'	4'	—	—	—	—	—	—	8'/21'18"
	UN2-EP30(Writing)	2'	3'	3'	—	—	—	—	—	8'/23'39"
Grade 12	UN1-EP7(Reading)	2'	4'	3'	—	—	—	—	—	9'/22'01"
	UN2-EP19(Listening)	3'	3'	3'	—	—	—	—	—	9'/23'10"
	UN2-EP28(Writing)	3'	4'	3'	—	—	—	—	—	10'/22'44"
	UN3-EP44(Speaking)	4'	2'	2'	3'	—	—	—	—	11'/22'12"
	UN5-EP67(Listening)	3'	7'45"	3'	3'	—	—	—	—	16'45"/20'19"

Notes: UN=Unit; EP= Episode; A= Activity

Source: *Video Lessons of the Terminated and Improved Plasma Lessons (acceded from CEICT)*

The above table shows that the time given for students to perform screened activities. It denotes the chunk of activities within the plasma air time. Say the first lesson (UN1-EP12), for instance, students made perform 5 pieces of activities during the 30 minutes transmission time. The first activity was given 3 minutes to accomplish. The second one 1munute and 20 seconds and so on. From the total of 30 minutes broadcasting time, 12 minutes and 20 seconds allocated for the students to do activities.

As can be seen from the table, most of the activities were given 3 minutes and below that. Only few of them covered above 5 minutes. The minimum time given for a given task in the old plasma lessons was 30 second. This is 2 minutes in the new plasma lessons. The maximum time allocation was given to do while listening activities. The results imply that most of the lessons were covered by the TV teacher's explanations. It seems that students were provided with insufficient time to accomplish the activities.

During reviewing the lessons, it was noted that the plasma presenters depended on lecturing concepts to the students. After lecturing, they demonstrated the class how to do the activities using examples and they requested students to perform the activities based on the explanations and demonstrations. Then, after the allocated time was up, the screen teachers appeared and started giving answers and explanations. This makes the students passive recipients of knowledge. That is, instead of constructing their knowledge by involving themselves in doing various tasks and interacting with their fellow students and classroom teachers, the way plasma lessons are presented make students pay attention to what is narrated on the TV screen. In fact, the activities displayed on the screen are lovely and relevant to provide knowledge inputs. Most of them, especially the new ones, are also related to students' socio-cultural backgrounds.

Overall, based on the responses of students and teachers, classroom observations and the documents reviewed, it can be said that the televised activities are interesting and designed in conjunction with the instructional print materials. They are also fitting to develop students' different language skills and easy to perform. However, insufficient time was allocated to perform the activities. They were not also interactive.

4.2.5 Problems Encountered by Students and English Teachers while Using the Plasma-channeled Instruction

Different factors can play a great role to facilitate or hinder in using instructional technologies in the education world. As was discussed in the second chapter, factors like political, economical, cultural, attitudinal, psychological, technological, administrative and the like can play a major role in technology-based instructions (Usun, 2004; Andersson, 2008; Naimova, 2008; Bakar, 2008). With specific reference to the use of instructional television in language classrooms, several practical factors might hamper its practices. Bearing in mind facilitating and inhibiting factors for technology-based instructions, efforts have been made to identify the major problems students and English language teachers encountered while using the plasma technology as instructional tool. Based on the data obtained in the study, the following major problems were obtained among others.

4.2.5.1 Awareness and Attitude towards the Plasma TV Instruction

In order to know the awareness of teachers and students, interviews were conducted with students and classroom teachers. That is, students were asked whether or not they have any information about why the plasma program is preferred to the conventional (traditional) instruction. The results revealed that most of the respondents did not have clear information why the medium is chosen as instructional tool. They uncertainly articulated that the program was launched to deliver equal education throughout the country. Their teachers also interviewed about why the technology was preferred as a pedagogical tool and how it was planned. Teachers pointed out that they did not have clear information how it was planed and why it was preferred to the conventional instruction (please see Appendices I1 and I2). It is to mean that the students and teachers have low a wareness of the plasma–channeled instruction. This may create negative attitude towards the use of the plasma TV instruction in their teaching-learning process.

Responses of students and teacher informants to some of the open-ended items in the questionnaires support this. Teacher respondents mentioned that students did not prefer to learn through the plasma. They preferred to learn in conventional instruction. As a result of this, almost all of the students have negative attitude towards the program. They considered leaning via the plasma TV as time wastage; they considered as if they were watching movies. Students in their part also stated that they did not think plasma is better than face-to-face learning.

Moreover, respondents were asked whether or not students and teachers were interested in the plasma-mode of instruction. Even though classroom English teachers in their part replied that they were interested to work with the plasma since it gave them relief, their students responded in the contrary as:

> *Not all of them some of them have competence because most of them do not have confidence to use plasma. They don't like to use it [S_1]. I think that most teachers are not interested to work with plasma. They thought that as it hasn't relevance [S_2]. I don't think because they often prefer to teach by themselves. You see, they open [turn on] it for formalities [S_6]. Most teachers preferred to teach face-to-face, because their students prefer to learn without plasma [S_8]. I don't think that they are interested because the plasma teachers dominated them [S_9]. No. they are not interested you see, plasma over took teachers part. It makes the teacher learners not teachers. But it gives relief to the teachers [S_{10}].*

As their responses show, most of students were also not interested in the medium, they have negative attitude towards it. They wished the transmission was interrupted. During field works it was observed that students disconnected the plasma TV connectors and broke electric lines in order to distract the broadcasts (please see Appendix F Diary 18). In relation to this, a teacher interviewee mentioned, "they [students] took some measures; they broke the plasma and they are non-functional. This shows how they hate it." A director also replied, "Teachers and students have negative attitude towards plasma. Student, for example, disconnected signals, stole the connectors, disconnected electric lines." For this reason, some schools posted notice

each class (please see Appendix D Pic 10). Students also reflected their negative attitude towards the plasma instruction informally talking to their fellows; some students sang songs that reflect their internal feelings in the school during break time and their thoroughfare. For instance, the Amharic song, as stated in Appendix F Diary 2 was widely vocalized by 'plasma students'. Which literary means:

> *My father encouraged and let me go school with bag and exercise books. It is shame on me if I don't rank first. My father expects my great success even though he doesn't know plasma.*

> *Plasma lesson is difficult for me. I can't learn properly. I can't understand the subjects: English, mathematics, and sciences. I can't take notes. It makes me hopeless.*

The aforementioned findings suggest that there is much enthusiasm among the implementing bodies (the proponent of the plasma-channeled instruction) in developing and expanding the potential of the medium throughout t he country. They thought that the use of ICT in education can increase access to learning opportunities and help to ensure the quality of education with advanced teaching methods and improve learning. In view of this, they have allocated a huge amount of money and resources to integrate the technology into the country's education system. However, the awareness of the key practitioners (students and teachers) towards the integration of the plasma-based instruction seemed low. This made students and teachers have negative attitude towards the technology.

4.2.5.2 Teachers' and Students' Philosophy of Teaching-learning

More importantly, classroom teachers' and students' philosophy of teaching-learning can affect the practices of the plasma-channeled ELT. As far as the classroom observations are concerned, classroom teachers still viewed their role as technicians, operating the plasma screen. They were observed turning on the television and getting students watch the programs. Most of them were not well prepared to facilitate or monitor the plasma-channeled lessons. Even when students asked them for assistance, they told them as everything could

be found from the screen. A response obtained from the mouth of one of teacher interviewees is a good example of this is. It reads, "The teachers do not pay attention [to the program], they are passive. Not only passive teachers are negligent. Even when there was electric power interruption; teachers know the way how they left out the class [they left the class if the transmission was interrupted]...." Students in their part still named teachers after DJ (Disc Jockey) as their task was limited to switch on and off the plasma, maximizing and minimizing the volume of the plasma TV mounted in front of students.

Most of the classroom teachers believed that their students gained better knowledge from their face-to-face explanations as most of student and teachers respondents mentioned during the interviews. Students also preferred learning from their face-to-face teachers. That is, a large number of teachers and students wanted to deal with people not machines.

This indicates that the plasma-channeled instruction mismatched with teachers' and students' philosophy of teaching-learning. For this reason, teachers were still engaging with their traditional approaches to instructive teaching and simply using technology as an effective supplement for conveying information to their students.

4.2.5.3 Systemic Approach to Implement the Plasma Instruction

During the study, an attempt was made to assess the program plan of the plasma television instruction in general and the plasma-channeled English language instruction in particular. As discussed in Chapter 3, for the televised program, it is expected that Center for Educational Information Communication Technologies of the Ministry of Education is the key implementing organization of the program. It is responsible to design, prepare and transmit televised programs throughout the country. Moreover, others associate organizations and community partners like the regional, zonal

(sub-city)/*woredal*(*kebele*) educational experts are assumed to collaborate with CEICT in developing, supervising and monitoring the implementation of the program. Classroom teachers, students, and school directors are also responsible to utilize the program at school level. In order to look into the linkage between implementing and implementer bodies (the broadcasting center and the reception ends) and to identify the problems encountered, interviews were made with the respondents, on site observations were carried out and documents were reviewed. The results are presented as follows.

As far as the documents reviewed and responses of the informants are concerned, the plasma program was planned and produced at federal level without involving frontline practitioners, considering the interest of students, teachers, parents and other school community and/or conducting pilot tests and researches. After one year programs production in top-down approach, the plasma TV instruction was widely launched in 2004 across the country.

It is a fact that before a new project or program has been widely implemented; pilot testing has to be conducted since this is the critical initial step for future effective implementations of a program. It also ensures empirical knowledge about the implementation of the project to be employed in the actual practices. During the study an attempt was also made to look into whether or not the plasma-based instruction in Ethiopia was pilot tested before its actual practices. The literature works the researcher consulted and the interviewed made with informants revealed that the plasma-based was not pilot tested. The program was widely launched in government secondary schools across the country without pilot test. The program was underway for five consecutive years and interrupted for revision (primary English and Civics and Ethical Education in 2008/09 academic year and other subjects- mathematics, Biology, Chemistry and Physics in 2009/2010 academic year). The revised plasma lessons have also been resumed since September 2011 without a wide trial and giving trainings to front line workers before the actual practices.

With respect to the televised ELT, it was identified in the study that in 2005 and 2006, the ICDR made revision of the English textbooks of grades 9 – 12, although significant changes were not made (please see Appendix F Diary 4). The revised versions compiled originally prepared two texts (book one and book two) of grades 9 -11 into one book. Furthermore, some topics and language items were canceled and replaced by new ones. This caused problems in the implementation of plasma-channeled English language teaching which was prepared based on the texts books since the revised books did not coincide with the plasma lessons(pages were completely changed and the new portions were not incorporated in the plasma lessons). This caused a great problem during the practices of the plasma-based ELT. This indicated that the ICDR and CEICT (both are under Ministry of Education) had not discussed or worked together before the revisions were made. They were not working in coordination. One of the interviewees replies strengthen this as:

> *...Finally, what I want to comment is that there should be a cooperative work among different directorate or different sections of Ministry of Education. You see, Ministry of Education has about 23 directorates. All these 23 directorates have only one output. They have same objective. If they have the same objective, they should struggle [strive] to achieve this goal. But they never discuss the problem by sitting together. For example, CEICT produce these programs; ICDR produced students' and teachers' books, and the syllabus, but they never discuss with this Center [CEICT]. [E_3]*

What is more, during the termination of the plasma-based English lessons in 2009, the researchers attempted to ask school directors, teachers and students about the termination of the plasma-based ELT. They did not have clear information about the interruption of the program. They were not formally informed about the interruption (please see Appendix F Diary 16). Furthermore, as was discussed in 4.3.3.4 above, most of the informants at school level said that they were not provided with the necessary support they need to from the higher bodies. They mentioned that the linkage between their schools and broadcasters was loose.

From the above results it seems that there is lack of systemic approach to implement the plasma-channeled instruction which embraces the effectiveness of the practices of the plasma-channeled ELT.

4.2.5.4 Teachers' Professional Competence

It is a fact that integrating the plasma-based instruction in the English language teaching leaning process requires teachers' knowledge of the technology along with their subject matter and pedagogical knowledge. It requires the professional competency of teachers, such as the use of the plasma TV, how it differs from conventional classroom teaching, how to manage and administrate the technology, etc.

Having this in mind, efforts were made to explore English language professional competence while they were using the plasma TV instruction in their English language lessons. As the results shows, teachers' professional competency in using the plasma-channeled instruction was identified as a major problem. It is evident from the following classroom English teachers and directors reactions that teachers' professional competence is one of the problems of the effectiveness of practicing the plasma-channeled ELT. English teachers mentioned that they were confident enough to teach English via plasma, but they had problem of professional competence to employ the technology. For instance a teacher respondent mentioned, "According to the instruction of the plasma, I know nothing. But I know what to do as a teacher. We don't have any information why they installed the plasma here. They enforce us to use it here." Another teacher respondent also articulated that "we have a problem of that [how to use plasma in their language classes]. Even most teachers have not the necessary skill how to operate the plasma. May be 'on' 'off' is the elementary. Apart from that, to select or search whatever programs, they have a problem. Students are better than them." (Please see Appendix I2). What is more, teachers to open-ended items

mentioned that the televised English language teaching was suffered since classroom teachers' knowledge of how to use the plasma instruction in their English lessons were minimal (please see Appendix G).

Directors also shared teachers' responses as (where D_1 = Director $_1$; D_2 = Director $_2$; D_3 = Director $_3$, etc.):

> *Ok, when we are talking about English language teachers, there are some problems, especially the new comer teachers. They are afraid of the plasma. They don't have confidence. For example, they fear that if they committed mistakes, the plasma exposes them. We plan to minimize these frustrations in our teachers' professional development programs [D_3]. It's difficult to say all of them have competence to work with plasma. I think that most of them have it [D_5]. I don't think they have competency to use the plasma that is why instead of using plasma they used the traditional way of teaching [D_9]. Teachers do not have any background about how to teach using plasma. They were not trained the use of the technology in their trainings. They only know talk and chalk [D_{10}].*

However, experts believed that the plasma instruction itself contributes to teachers' professional competency. They pointed out that plasma makes the teachers knowledgeable by updating their knowledge of content and language skills.

The above results revealed that lack of teachers' professional competency of how to use the plasma instruction in their language classrooms seemed to hinder the effectiveness of the practices of the plasma-based ELT.

4.2.5.5 Pace of the Plasma Presenters and Time Allocation

Speed and accent of the plasma presenter, shortage of time to do exercises, and mismatch of the students English language ability and the plasma presenter's English were among the major problems respondents mentioned. That is, almost all students mentioned that the pace of the plasma presenters mismatched their pace of learning. Students mentioned that the medium is more appropriate to fast learner students. Teachers' responses also support

this. Experts also admitted that the speed of the presenters was beyond most of the students and they tried to improve this in the new plasma lessons (please see Appendices I1, I2 and I4).

As was discussed in 4.3.5 above, the insufficient time given for the students to perform activities was the major problem. Inadequate time was also allocated for classroom teachers, especially in the old plasma lessons, so that teachers were in difficulty to assist their students or to fill the gaps students encountered. The frequency of transmission of the new plasma lessons were also raised as a problem. That is, the new plasma lessons have not been presented regularly, so teachers and students have not known clearly which contents covered by plasma. They have also faced problems of covering portions before the next plasma has been broadcasted.

Furthermore, most of students and teachers indicated that the plasma teachers' explanations were beyond students' English language proficiency. Even some students wished the lessons were presented by Ethiopian teachers though experts capitalized the delivery of the lessons by native speakers. Students, for example, say:

> *There were lots of contents that I haven't understood. The language was difficult to understand, we didn't know the meaning of most of the words; therefore, we missed most of the plasma explanations [S_1]. The other problem was the accent of the presenter was difficult to comprehend to some students they often said, "What did she say?"[S_5]. The other thing is it was difficult to understand the language of the plasma presenters… [S_{14}]. Ehhh…the weaknesses are it was very fast and the language of the presenters were difficult to understand. [S_{15}]*

This is to mean that mismatch of the pace of plasma presenters with students pace of learning, insufficient time allocations and disparity between the accent of the plasma presenter and the students' poor English language background hampered the use of the plasma TV instruction as pedagogical tool in the English language classrooms.

4.2.5.6 Political and Psychological Views

As was discussed in the first chapter, when the plasma project began, programs were produced in 12 months in South Africa, and plasma TV screens and satellite dish receivers were installed with the support of US$80-milion World Bank loan. Then, the program was launched throughout the country in September 2004. At that time, there were resistances to use the plasma as a medium of instructions. It was thought that the technology was launched to replace classroom teachers. Plasma was also a big deal for politicians at the time of the 2005 national elections. Most opposition parties failed to appreciate plasma TV in their debate on the country's education policy while the ruling party appreciated it.

The program was underway for five consecutive years and interrupted for revision (primary English and Civics and Ethical Education in 2008/09 academic year and other subjects- mathematics, Biology, Chemistry and Physics in 2009/2010 academic year), and resumed in this academic year.

During the study, it was identified that some of the teachers perceived the technology as issue of politics (please see Appendix F Diary 14). One of the informants' responses seemed to support this. It reads, "[Plasma] It's for political target. They [Government bodies] do have a sort of belief, teacher are migrating from teaching profession. They assume that the plasma can replace teachers, but never in history had the plasma replaced the teacher. They don't know this core point" To one of open-ended items, a respondent also reflected as plasma came again for political target (please also see Appendix G2). This is to mean that some of the practitioners considered the technology as an issue of politics than as a pedagogical tool which enhances the teaching learning process.

The other problem identified in the study was students' psychological problems. That is, the majority of the students were preconceived as the technology hampered their learning. They thought that lessons delivered using the technology are beyond their level of understanding. They also perceived that it is difficult to learn from the medium. From their precursors 'plasma students', they were informed that the contribution of plasma for their learning was nothing as it was hard to follow plasma lessons. This makes them 'techno-phobic'; most of the students simply hate plasma. The responses of one of student respondents seemed to support the same (please see Appendix G). It reads, "Most of the students are anxious of plasma. I think that this is because of the problems they heard about the terminated plasma instruction."

It seems to mean that the political interpretations of teachers and psychological problems of students contributed to the impediment of the practices of the plasma-channeled ELT.

4.2.6 T he Improvements of the Plasma-based English Language Instruction

During the study, an attempt was made to investigate the improvements of the plasma-based English language instruction. That is, in order to see how the improvements have been carried out and whether or not improvements have been made to overcome those major problems identified in the preceding sub-section, the researcher tired to look into closely the processes of the improvements. Since the improvements were made during the present study, attempts were made to contact experts who played active roles in content specification, inspecting the production and the overall activities. Efforts were also made to look into how programs were recorded, compiled, commented, pilot tested and launched. The results obtained from personal observations, interviews and documents are presented here.

During the research settings observations, the researcher was informed that the productions of new English language plasma lessons were produced in 2009/2010 academic year along with the preparation of the new books. Having collected relevant documents of the plasma-channeled English language lessons, the researcher carried out the pilot study from April – December 2010. After productions of new English language lessons were over, the researcher tried to watch some of the video lessons at the studio of CEICT in June – August 2011 and recorded diary. When new lessons were broadcast in September 2011, the researcher visited the sample schools and tried to observe what was really going in the classrooms (please see Appendix F Diary 17).

The observation results revealed that at the start, students and teachers were in trouble to follow new plasma lessons due to channel distortions, unavailability of plasma guides and textbooks. Most students were watching the programs fascinatingly even though they were reluctant to perform the activities they were requested to perform. Most of the students and teachers were expected regular transmission of the program as it was before. Even some teachers considered as malfunction of transmission when they could not get transmissions day-to-day.

After the program was used for about a semester, respondents were interviewed in order to generate data about the improvements made and how the improved English language plasma lessons have been different from the terminated one. Almost all of the student and teacher respondents mentioned that the speed of the presenters has been improved and sufficient time has been given for the classroom teacher (the plasma has covered 20 minutes of the period and the rest 20 minutes have been given to the classroom teachers). They, however, said that inadequate time has been given the students to perform televised activities. In addition, they pointed out that the accents of the presenters are still difficult for the students to understand.

They also complained about the infrequency of the transmission and the arrangements made to implement it properly (please see Appendices I1and I2). Director respondents also shared students' and teachers' responses. They articulated that the time allocated for the classroom teachers has been improved; however, directors stated that the frequency of the transmission both across content and per lesson was insufficient as compared to the terminated English plasma lessons. A respondent, for instance, mentioned the following:

> *It's good, but the transmission time and frequency is not sufficient. You see, we have many sections and few teachers. The new plasma is broadcasted with a limited time. For example, they [broadcaster] transmit English lessons for grade 12 two times or one time per month. This is also broadcasted with a limited frequency. So, some sections miss the program.*

Towards the improvements made in the new plasma lessons, experts on their part said that based on the evaluations they carried out on the terminated plasma lessons, they gave sufficient room for the classroom teachers by allocating equal time during the transmission and focusing only selected contents. They also improved the speed of the presenters and the nature of screen activities. Specially, in the televised English lessons, they tried to include more interactive activities than the previous one. They also mentioned that sufficient time has been given to do the activities in order to make the lessons student-centered. They added that in order to overcome the problems encountered in both the terminated and the improved plasma-based instruction, they have been setting up a digitization project(please see Appendix I4 and Appendix F Diaries 13 and 20). That is, they have designed a digitization project at CEICT which costs about 18 million Birr. The project aims at digitizing plasma lesson contents, installing the lessons in a server at a center and making ready for users at school level. The project has been pilot tested and finalized to use in the 2012/13 academic year in 120 schools, and then step-by-step to all schools. They also mentioned that they plan to provide schools the plasma lesson with VCDs and DVDs. The project was

pilot tested in two schools of the country (Awassa, Tabor and Bahir Dar Mesenado shools). The digitization project is illustrated in the figure below.

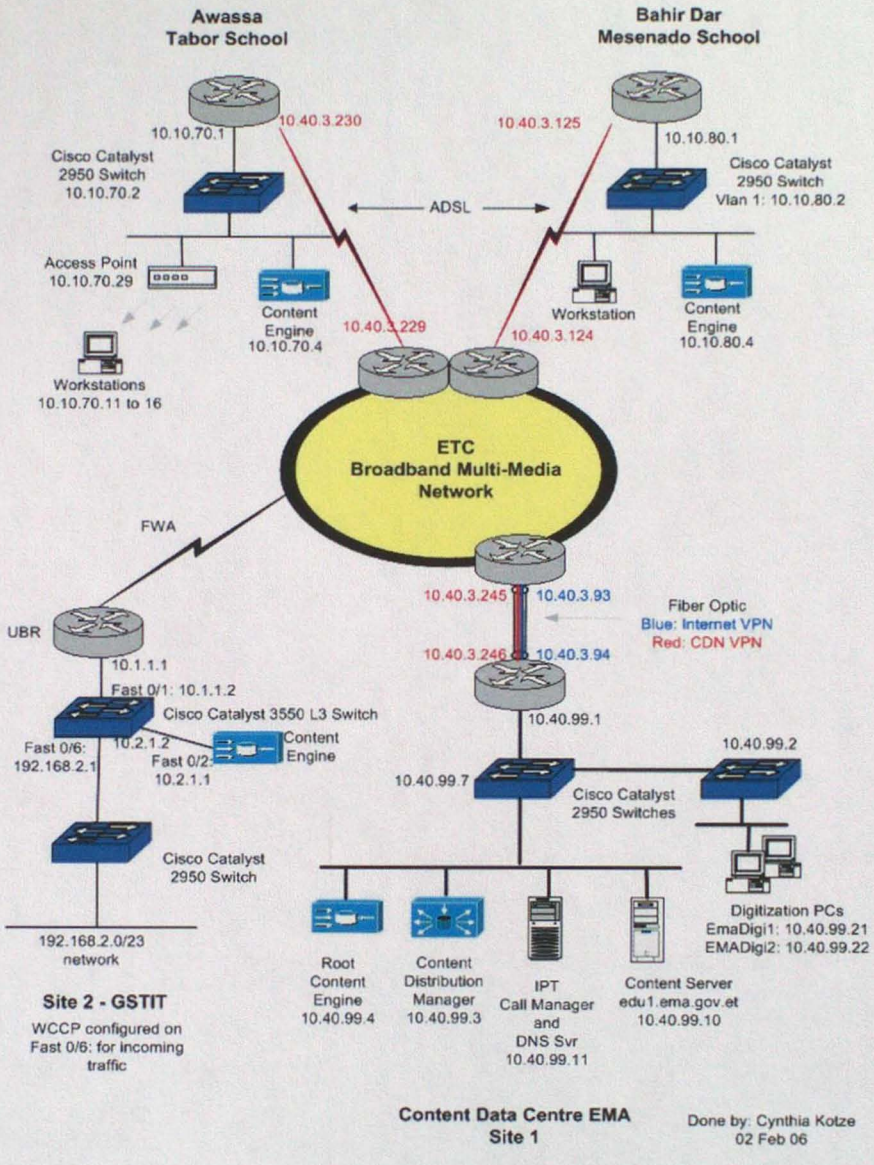


Figure 4.4: The Digitalization Project Design of the Plasma-channeled Lesson Contents

Source: Proposal of Center for Educational Information Communication Technologies on Learning Channel Index Interface (Retief and Kotze, 2005:17)

Figure 4.4 illustrates that contents of the plasma lessons are installed in a server at the broadcasting area and are acceded by reception ends (schools)

using Internet connections. That is, plasma video lessons are changed into web format and installed in a content server at CEICT. And contents are distributed using a content distribution manager at the Center. A content recipient engine is also installed at each school and users accessed these lessons at a remote site. They browse the home page of the user interface for the learning channel web site and search for the lesson name or lesson description. Then, they click on the plasma lessons they wish to look through. The search page menu, for instance, is illustrated below.

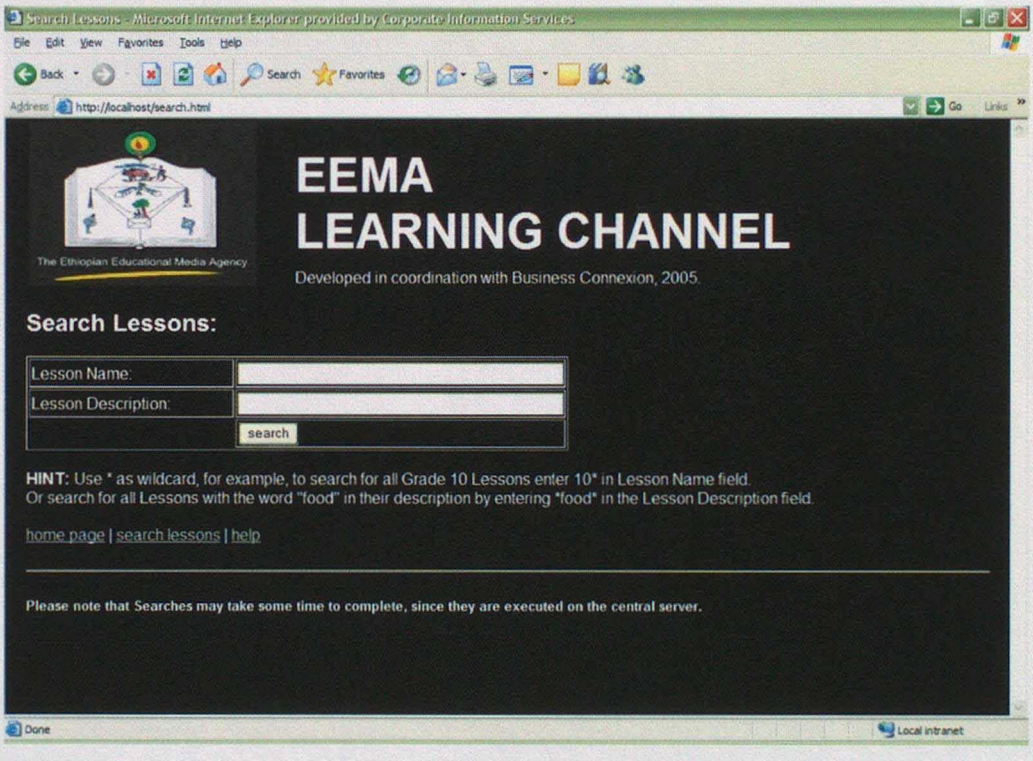


Figure 4.5: A Search Page Dialogue Menu to Browse Digitized Plasma Lessons

Source: Proposal of Center for Educational Information Communication Technologies on Learning Channel Index Interface (Retief and Kotze, 2005:7)

As far as the researcher observations and the responses of informants are concerned, the awareness and attitude of teachers and students towards the plasma TV instruction and their philosophy of teaching- learning seemed to be unchanged. They have negative attitude towards to use plasma and they preferred the conventional instruction. The overall systemic approach to implement the plasma instruction also seemed to suffer. The linkage between the implementing bodies and implementers has found to be unsatisfactory. Furthermore, some teachers have still interpreted plasma as political agenda not as instructional tool which enhances the teaching learning process.

From the above results, it can be said that there were no any tremendous changes made to overcome problems that students and English language teachers encountered to practise effectively the plasma-channeled ELT. In fact, the time covered by the plasma instruction and the conventional instruction has become equal. Attempts have also been made improve the speed of screen teachers' presentations and the nature of broadcast activities. The screen teachers have presented the lessons in a normal speed and screened activities have been presented using animations, simulations and lovely demonstrations. The digitization project has been found to be a good start to minimize the problems as well.

4.2.7 A Comparison of the Terminated and Improved Plasma-based English Language Teaching

As was discussed in Chapter 2, the terminated plasma English programs were transmitted in a regular manner while the new plasma-based English programs have covered few lessons. That is, even though the terminated programs were regularly presented as per the schooling weeks, the new televised lessons have been offered based on some selected contents; non-plasma and plasma lessons were identified, and the programs are transmitted in that fashion (please see Appendix J). For example, skills/contents aired for preparatory students through plasma are presented in the table below.

Table 4.10: Language Skills/Contents covered by the New Plasma-based English Instruction (Grades 11 and 12)

Units	Grade 11	Grade 12
	Skills/contents covered	**Skills/contents covered**
1	Reading(2 periods);speaking, listening, writing and learning strategies(1 period each)	Listening, speaking, reading and learning strategies (1 period each)
2	Listening (2 periods); speaking, reading, writing and learning strategies(1 period each)	Listening, speaking, reading and writing (1 period each)
3	Reading(2 periods); listening, speaking, writing and learning strategies(1 period each)	Listening, speaking, reading and writing (1 period each)
4	Speaking(2 periods); reading(2 periods); listening and writing(1 period each)	Listening, speaking, reading and writing (1 period each)
5	Reading(2 periods); listening, speaking, writing and learning strategies(1 period each)	Listening, speaking, reading and writing (1 period each)
6	Reading(2 periods); listening, speaking, writing and learning strategies(1 period each)	Listening, speaking, reading and learning strategies (1 period each)
7	Listening(2 periods); writing (2 periods); speaking and reading (1 period each)	Listening, speaking, reading and writing (1 period each)
8	Reading(2 periods); listening, speaking, writing and learning strategies(1 period each)	Listening, speaking, reading and writing (1 period each)
9	speaking (2 periods); writing (2 periods); listening and reading (1 period each)	Listening, speaking, reading and writing (1 period each)
10	speaking (2 periods); reading (2 periods); listening and writing (1 period each)	Listening, speaking, reading and writing (1 period each)
11	Listening (2 periods); speaking (2 periods); reading, writing and speaking and writing strategies (1 period each)	speaking (2 periods); listening and learning strategies (1 period each)
12	Reading(2 periods); listening, speaking, writing and learning strategies(1 period each)	Listening, speaking, reading and writing (1 period each)
Total	**Listening(16 periods); speaking(16 periods); reading(19 periods); writing(14 periods); learning strategies(8 periods)**	**Listening(12 periods); speaking(13 periods); reading(11 periods); writing(9 periods); learning strategies(3 periods)**

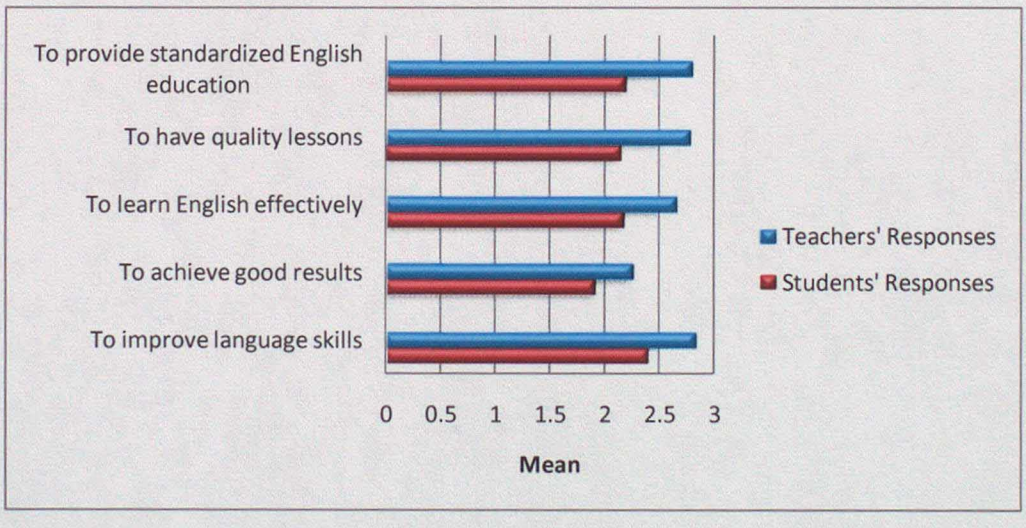
***Source**: English Language Satellite Televisions Program Specifications (CEICT, 2011b)*

As illustrated in the above table, the new plasma-channeled English language covered a total of 73 periods for grade 11 and 48 periods for grade 12. The majority of the periods were given for the face-to-face instruction. Moreover, the new plasma lesson covered the four skills and the study skills. It gives less or no emphasis for language elements, like grammar and vocabulary.

As far as the researcher's observations and documents reviewed are concerned, both the new and old plasma-channeled English lessons are delivered in a blended approach. Lessons are presented by a screen presenter and supported by a classroom teacher. That is, a screen teacher presented contents to the students and a classroom teacher and students listen to the presentations and perform different activities as they are instructed (the teacher facilities and/or monitors; the students perform tasks). However, the new and old plasma lessons are different basically in some aspects. The first difference is that the new plasma lessons are started with the plasma presenters and lasted for 20 minutes (the remaining 20 minutes are given for the classroom teacher), but the old plasma lessons are begun with 5 minutes classroom teachers' introduction and after 30 minutes plasma lessons coverage, 5 minutes are given for the classroom teachers to wind up broadcast lessons. The second major difference between the two is their regularity. Though the terminated plasma lessons are broadcast regularly, the improved plasma lessons are broadcast rarely based on selected contents. The third major difference identified during the study was the pace of the screen teachers. Presenters in the old plasma instruction are speedy whereas presenters in the new plasma lessons are a little bit slower. The other difference between the two was the nat ure of activities displayed on the screen. Most of activities of the old plasma lessons were out of the socio-background of students; most of demonstrative activities reflect South Africans cultures. In the new plasma lessons, however, an attempted has been made displaying demonstrative activities that reflect the image of Ethiopians cultural values.

4.2.8 Effectiveness of the Plasma-channeled English Language Instruction: The Domino Effect

Since its inception, several assertions have been made about the potential contribution of plasma TV to students' learning by the proponents of the program. Consequently, they continue to expand the program throughout the country. The advocators of the program mentioned that the program has fulfilled its objectives. That is, the plasma program was designed to fulfill the following objectives: to present abstract concept in a simple manner, to transmit uniform and standardized education to many students to have access to model and competent teachers, and to demonstrate laboratory equipment found in one place (classroom) to their learning classroom(FDRE, 2004). To assess the responses of students and teachers regarding the intended and implemented plasma-based English instruction, in the questionnaires, students and teachers were asked. Their responses are given in the figure below.

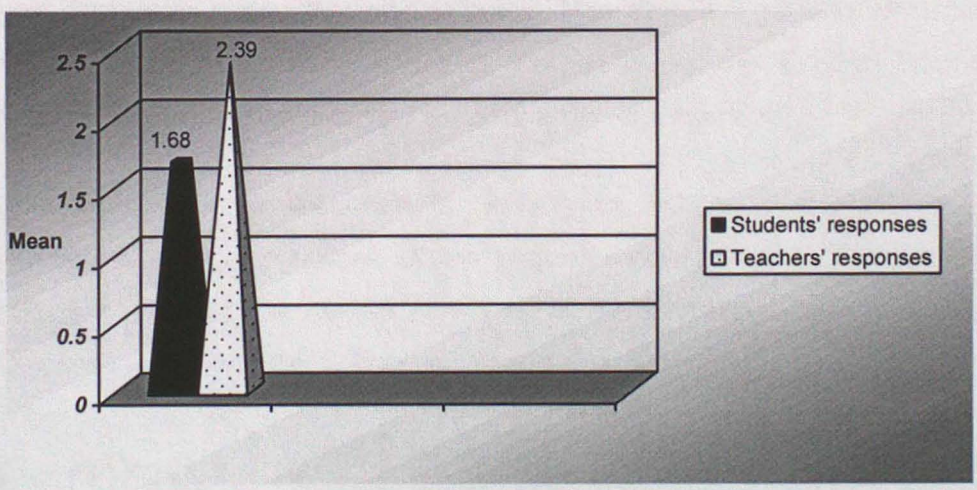


Notes: 0= Strongly Disagree; 1=Disagree; 2=Undecided; 3= Agree; 4= Strongly Agree

Fig 4.6: Students' and Teachers' views regarding the 'Domino Effect' of the Plasma-channeled English Language Instruction

As shown in Figure 4.6, the majority of teacher respondents replied that the plasma-channeled English language instruction helped to provide standardized English education to students; to have quality English language lessons; to learn the language more effectively; and to improve students' English language skills. That is, the mean value of English language respondents was above the median point. However, the majority of students responded that the domino effect of the plasma-based English language instruction on their English language education was average.

Student and teacher respondents were also asked to rate the overall effectiveness of the practices of the plasma-mode of ELT. Students and teachers rated that the overall practices of the televised English language instruction was average. That is, the mean scores of both student and teacher respondents were slightly near to the median point (*Mean= 1.68; t= -6.63* – students, and *Mean = 2.39; t= 2.36 – teachers*) as illustrated in the figure underneath.



Notes: 0= Strongly Disagree; 1=Disagree; 2=Undecided; 3= Agree; 4= Strongly Agree

Fig 4.7: The Overall Effectiveness of the Practices of the Plasma-channeled English Language Instruction

In addition to the above close-ended questions, respondents were provided with some open-ended questions in the questionnaires. They were asked to mention some comments on the effectiveness of the practice of the plasma-base English language education and its development. They mentioned that the attitude of teachers and students towards the medium, lack of classroom teachers' knowledge integrating the technology in their English language classes, and the way programs are presented hampered the overall effectiveness of employing the plasma-based instruction(please see Appendix G).

To triangulate the data obtained from the questionnaires, all informants were interviewed; they were asked to comment on the overall effectiveness of the practice of the plasma-channeled ELT and its development. The subsequent results are found (please see the last items of Appendices I1, I2, I3 and I4). Almost all student interviewees articulated that they did not believe that the plasma-based instruction has been employed as it was expected. Teachers also commented that the program was not effective due to technical problems, lack of professional supports, students' preferences of learning from their face-to-face teacher, and lack of coordination. Most of the directors, furthermore, mentioned that the overall effectiveness of the program was obstructed due to negative attitude of students and teachers towards the plasma instruction and infrequent broadcast of the new plasma lessons. The experts in their part articulated that the implementation of program has been in problem because of problems like negligence of people who are assigned to follow the program at regional level, lack of technicians and skilled teachers at school level, and electric power interruptions.

The above results revealed that plasma-based English instruction did not seem to practice as expected. This is to mean that the effectiveness of the intended and implemented plasma-channeled English instruction is not satisfactory.

4.3 Discussion and Interpretation of the Findings

In this section, an attempt is made discuss and interpret the study findings in relation to the research questions and related literature materials. Moreover, the results of the present study will be compared with those previously reported findings in the literature. The data emerged from the various data collection tools will also be interpreted by bring together to the research question they intended to answer. In so doing, the discussion and interpretation of the results begin with the first research question which asks the delivery of the plasma-channeled ELT. This is then followed by the second research question which questions the TPACK knowledge of the classroom English language teachers. Next, discussion and interpretation of results on the nature of the content of televised activities (as based on the third research question) will be dealt. After that data generated related to the fourth research question (major problems students and English language teachers have encountered in using the plasma-channeled instruction) will be interpreted and discussed. Followed by the improvements have been made to overcome those problems will be dealt. Finally, the results on the comparison between the terminated and improved plasma-channeled English language will be discussed. That is, the six research questions will guide the discussion.

4.3.1 RQ1: How is the plasma-channeled ELT delivered?

The plasma program is developed as a blend approach. It combines televised instructions with face-to-face instruction, contents are delivered by a screen teacher in the form audio-video with the help of a classroom teacher monitoring and explanations. It is expected that students give attention to the concepts delivered by the screen teacher and to perform activities as they are instructed. The necessary arrangements are also expected to be made for the effectiveness of practicing the program.

Both the observational and self-report data indicated that the screen teachers did not deliver the lessons as per students' and teachers' satisfactions. This is

mismatched with the initial assumptions the researcher had. It was assumed that both students and teachers have good satisfaction with screen teachers since they are native speakers and presented lessons lovely. On the contrary, both students and teachers considered the language of screen teachers as a barrier for their teaching-learning process (students could not comprehend plasma lessons due to the accent and speed speech of plasma teachers). This is may be due to the low English language proficiency of students. That is, even though it is difficult to talk about the level of proficiency of English language among secondary school students without conducting a study or giving an English language proficiency test, most of the preparatory students in which this study was conducted had great difficulty to speak and to listen to spoken English. The observational data found in this study is a good example of this. Students were often observed using Amharic language when they were performing activities and interacting with their classmates and classroom teachers. The classroom teachers often also explained the screen teachers' presentations in Amharic to the students. This finding seems to be consistent with Tekeste's (2006) study. He mentioned that students could not cop up with the plasma presenters' language since their English language proficiency is extremely low.

Apart from the screen teacher, as was discussed in Chapter 3, classroom teachers enhance the learning value of television by planning ahead to consider instructional goals, preparing by previewing the program, setting clear expectations for students, encouraging student participation through setting the context before viewing, pausing during the program to ask key questions and flag priority topics promoting reflection through post-viewing discussion and assignments, and connecting post-viewing activities to hands on or real-world experiences (EDC, 2004). Classroom teachers also serve as motivator, mediator, and designer of tasks rather than mere knowledge provider (Spodark, 2001).

With regard to the classroom teachers' roles, the data obtained from students and the classroom observations disclosed that students were provided with less support from their classroom teachers while they were learning through plasma although teachers in their part reported that they properly played their roles before, during and after the transmission of plasma contents.

It is interesting to note that the participation of students during the televised English instruction seems to be encouraging. Most of the students strived to follow the plasma lessons and gave attention to the plasma-based English lessons. In fact, this finding says nothing about students' ability to interpret and internalize meaningfully the inputs they were obtained from the plasma teachers' overview presentations.

Towards the arrangements made to deliver the plasma-based instruction, conflicting results were found. That is, the results obtained from experts and school directors show that the required arrangements (administrative and technical support services), such as, supervision (inspection), training, maintenance, experience share, preparing and distributing schedules and plasma manual, etc. were made for effective delivery of plasma lessons. They blamed frontline practitioners (students and teachers) and the responsible bodies at regional and *woredal* level (supervisors). In contrary, the teachers' and students' self-report data indicated that the arrangements made at school levels did not seem to be as required. The observational data results may compromise the contradiction. It was observed that even though English teachers were provided with the new textbooks and teacher's guide, they did not access the plasma manuals and soft and/or hard copy of the programs. It should be noted here that a further study on in-built supervisions or inspections may also shed more light on the issues of support services schools receive from broadcasters and/or associate organizations (regional, zonal or *woredal* bodies).

4.3.2 RQ2: What is the technological pedagogical knowledge of English language teachers like and to what extent is this knowledge employed in the plasma-channeled English lessons?

Lack of technical and theoretical knowledge is one of obstructions to the use of the televised instruction (Lee, 2000). That is to say, many teachers do not understand how to use the new technology. Furthermore, practitioners may not know about integrating these new means of learning (ITV) into an overall plan. This improper use of technologies can affect both the teacher and learner negatively in their teaching-learning process. In line with this, Naimova (2008) stressed that teacher attitudes, availability issues, personal unfamiliarity with technologies, lack of training, and psychological (or human) factors have all been shown to affect the use of technology in the classroom. What is more, effective technology integration for teaching specific content or subject matter requires understanding and negotiating the relationships between three components: technology, pedagogy, and content. The incorporation of these three basic components of knowledge is crucial in any technology based instruction.

This is to mean that a technology-based instruction demands ability of manipulating or using instructional technologies for instructional purposes, knowledge of how technology is used to provide new ways of teaching content, knowing how teaching might change as the result of using particular technologies, and knowledge of the complex interrelationship between technology use, instructional methods, and understanding of the subject matter (Mishra and Koehler, 2006; Cox, 2008; Harris, Mishra and Koehler, 2009; Jimoyiannis, 2010).

When adopted the TPACK framework for the study, it was hypothesized that classroom teachers would have the required technological knowledge to manipulate the plasma TV for instructional purposes properly since the skills

required to operate TV might not be complicated like others high-techs. The findings of this study, however, contradicted this assumption. Teachers' knowledge of the technology, such as turning on/off, muting, and searching for the appropriate channel, adjusting the required volume and contrast and so on was found to be average. Even some of them were seen requesting their students to give them a hand in order to search for the appropriate channel and to adjust any technical problems they encountered. Classroom English teachers self-report data also supports this. Their responses towards their knowledge of solving their own technical problems of the plasma-based instruction, having the technical skills they need to use the plasma-based instruction and keeping up with important new technologies found to be nearly at the median point.

Regarding the subject matter knowledge of the classroom teachers, the results indicated that most teachers knew about the content they were teaching. However, some teachers and students during the study commented on the subject matter knowledge of novice teachers. They mentioned that some newly hired English teaches' knowledge of the subject they are teaching (English) was not satisfactory enough. Even they were in trouble to understand some of plasma contents. For this reason, they were afraid of the plasma; they feared that if they commit mistakes, the plasma exposes them.

The results of the study disclose that classroom teachers had fundamental knowledge of methods and process of language teaching, such as classroom management, assessment, lesson plan development, and student learning. Moreover, they had higher knowledge of the content knowledge that deals with the teaching process (pedagogical content knowledge). The technological content knowledge of teachers was also found to be high. They had knowledge of how the technology can be used to provide new ways of teaching content (new ways of teaching language skills and elements). However, the study revealed that teachers' knowledge of how the plasma-

based instruction can be used in their teaching and the use the plasma-based instruction to different teaching activities were slightly low. Besides, teachers' intuitive understanding of the complex interplay among the three basic components of knowledge (knowledge of content, pedagogy and technology), was found to be low. This might be due to the teacher education program gave less or no coverage for technological pedagogical content knowledge.

It should be remembered here that the findings of the present study shows the technological pedagogical content knowledge of English language teachers with respect to practising the plasma-channeled lessons. It does not show in-depth the teachers' knowledge of TPACK; it does not test the teachers' knowledge of TPACK. Future investigations on TPACK with a particular focus on in-service or pre-service teachers in-depth might shed more light on this issue.

4.3.3 RQ3: What is the nature of the content of televised activities?

Researches on television's potential in language development appear to indicate the more likely relationship lies with the quality of content viewed rather than simply with the time spent in front of the set (Wainwright, 2006). This is to mean that the content of televised lessons students watch determine their language developments. For successful learning to take places, developers of instructional television should bear in mind whether or not contents capture the attention of viewers and keep them cognitively engaged throughout as was discussed in the review of related literature section. This is because content that is appealing to viewers offers onscreen characters that carry out mental activities for the viewer, model activities (e.g., carrying out the steps for completion), and suggest the steps the viewers can take to carry out the activity themselves (Wright and Huston, 1984 as cited in Wainwright, 2006).

The contents of instructional television need also be designed in conjunction with the syllabus and instructional print materials. The instructional television program contents are supposed to consider the instructional objectives of the syllabus which are draw from the learners' needs (Getachew, 2003). The contents of the plasma TV instruction are all in all based on the pre-planned syllabus and teaching materials (MoE, 2006a; 2006b; CEICT, 2011a).

The results of the study concerning the nature of plasma-channeled English lessons revealed that the activities displayed on the screen were interesting and motivating, and they were presented in accordance with the teaching materials. These activities could help students to develop their language skills, especially to promote listening and pronunciation skills. However, they were difficult to be understood by the students; they were especially very difficult to be understood and performed by slow or medium learners.

The results obtained from students and teachers showed that insufficient time was given to perform the activities. The results gained from the experts (producers), contrary, indicated that sufficient time was allocated for the activities in the improved plasma lessons than the terminated plasma-based lessons (8 to 10 minutes for an activity). The documentary dada (the review of video of sample televised activities) which triangulate the two results showed that most of the activities were given 3 minutes and below that. Only few of them covered above 5 minutes. The minimum time given for a given task in the old plasma lessons was 30 second. This is 2 minutes in the new plasma lessons. The maximum time allocation was given to do while listening activities. This seems that students were provided with insufficient time to accomplish the activities.

It was noted from the results of the study that the plasma presenters depended on lecturing concepts to the students. This made the students passive recipients of knowledge. That is, instead of constructing their knowledge by involving themselves in doing various tasks and interacting with

their fellow students and classroom teachers, the way plasma lessons are presented make students pay attention to what is presented on the TV screen. This finding seems to contradict with constructivist view of learning which capitalizes the use of instructional technology as means of learners' knowledge construction. That is, instructional technology should serve as a cognitive guide to help learners on authentic academic tasks (Jr and Perez, 2003; Heinich et al, 1996).

4.3.4 RQ4: What major problems have students and English language teachers encountered in using the plasma-channeled instruction?

As was discussed in the first chapter, the majority of earlier studies the researcher consulted showed that the use of plasma-based instruction created much more a series of problems than successes. And almost all of these previous studies suggested further studies to examine the problems. Most of the studies carried out during the inception of the program disclosed that the key users of the medium (teachers and students) had negative attitude towards the televised instruction (e.g. Ali, 2005; Misganaw, 2005; Tekeste, 2006; Habtamu, 2007). Other earlier studies also identified problems like the mismatch between plasma presenters' pace of presentation and students' pace of learning and shortage of time allocations for the classroom teachers to assist the students (e.g. Aberash, 2005; Kassahun and Zelalem, 2005; Berhnau, 2007). An attempt also made in the present study to look into the major problems students and English language teachers encountered in practising the plasma-channeled instruction. In so doing, seven major problems are identified according to the results of the study as discussed and interpreted below.

The first problem relates to the awareness and attitude of students and teachers. That is, it is important for students and teacher to have awareness

of the use of the plasma TV instruction in their teaching-learning process. It is also important for these users of the medium know the objectives of the program, how it is organized and why it is preferred over the usual conventional instruction. This is because having such knowledge is recognized as a necessary condition for the effectiveness of the practice of the plasma-based instruction. In line with this, Lee (2000) states that theoretical knowledge is one of crucial elements to the use of the televised instruction since this helps teacher to understand how to use the new technology.

The results revealed that key practitioners of the program, students and teachers, seemed to have unclear information why the medium was chosen as instructional tool. It is to mean that the students and teachers had low awareness of the plasma–channeled instruction. Probably one of the most surprising findings in this study is that students and teachers in the study area still have a negative attitude toward the integration of the plasma-based instruction in their teaching-learning process though it has been used for about 8 years. This finding seems to be similar with the results of the studies conducted at the debut the plasma program (e.g. Ali, 2005; Misganaw, 2005; Tekeste, 2006; Habtamu, 2007).

The second problem, the results of this study indicated, is related to teachers' and students' philosophy of teaching-learning. That is, classroom teachers' and students' philosophy of teaching-learning can affect the practices of the plasma-channeled ELT. In line with this, Becker, 2001 cited in Hoon (2008) mentions that a teacher's individual philosophy plays a large part in determining whether or not he/she uses educational technology in her/his teaching methods. Towards teaching philosophies, this scholar recognizes two distinct teaching philosophies: traditional transmission instruction and constructivist-compatible instruction. The traditional transmission instruction is based on a theory of learning that suggests that students will learn facts,

concepts, and understandings by absorbing the content of their teacher's explanations or by reading explanations from a text and answering related questions. Skills (procedural knowledge) are mastered through guided and repetitive practice of each skill in sequence, in a systematic and highly prescribed fashion, and done largely independent of complex applications in which those skills might play some role. The constructivist- compatible instruction, on the other hand, is based on a theory of learning that suggests that understanding arises only through prolonged engagement of the learner in relating new ideas and explanations to the learner's own prior beliefs. This means that the capacity to employ procedural knowledge (skills) comes only from experience in working with concrete problems that provide experience in deciding how and when to call upon each of diverse set of skills.

The later philosophy of teaching entertains the constructivism theory of learning. It underlines the idea that learning occurs when learners actively try to make sense of material presented to them. They learn if they actively create their own knowledge, apply and coordinate their own cognitive process. In such type of thought instructional technologies serve as an input provider which enables the learner's knowledge construction. The classroom teachers play the role of task designer and knowledge facilitator. They are expected to create learning environments which enable the construction of new knowledge. This means that in technology-based language instruction, the classroom teachers are not considered as mere knowledge providers. They are taken as facilitator, monitor or coach, guide, midwife, diagnostician, and content/ software developer (Spodark, 2001; McNabb, 2000). Specially, in televised instruction, the classroom teachers serve as bridge between a televised teacher and the students. They are responsible to create classroom situation that promotes active participation of students using the medium by facilitating and monitoring televised lessons throughout the transmission.

The results of the study revealed that most of the classroom teachers believed that their students gained better knowledge from their face-to-face explanations. Students also preferred learning from their face-to-face teachers. That is, a large number of teachers and students wanted to deal with people not machines.

The systemic approach to practise the plasma instruction is identified as a third major problem. In line with this, Sife, Lwoga and Sanga(2007) state that the int egration of ICTs in the functions of any organization is a complex process that needs to be fully conceptualized and defined from the beginning. They require systemic approach to implement them effectively. Also, when integrating information communication technologies in the usual teaching leaning process, clear plans have to be set up to guide their practices on the ground reality. Implementing and implementer bodies should have a common understanding of the strategic plan. Above all, as Sife, Lwoga and Sanga(2007) suggest, the following issues, amongst others, should be taken into consideration: (i) ICT infrastructure already in place; (ii) ICT skill levels in the institution; (iii) number of staff and students in each department and projected growth; (iv) academic management process: curriculum development, assessment methods and administration; (v) cost-effectiveness analysis (including hidden costs) and the choice of proper technologies for the needs of the institution; and (vi) staff development in new technologies.

As far as documentary and interview data are concerned, the plasma program was planned and developed in top-down approach. Then, the program was launched across the country without pilot testing. Furthermore, the results obtained from experts showed that they had a good linkage with the reception ends. Nevertheless, data obtained from informants at school level showed that the linkage between their schools and broadcasters was loose.

As discussed in Chapter 2, there are clearly many knowledge systems that are fundamental to teaching, including knowledge of subject matter and pedagogy (Shulman, 1986; Mishra and Koehler, 2006). After the use of instructional technologies in the teaching-learning process, scholars also projected knowledge of technology since new technologies have changed the nature of the classroom or have the potential to do so (Mishra and Koehler, 2006;Cox, 2008; Schmidt et al, 2009). In proportion to this, Sife, Lwoga and Sanga(2007) state that integration of ICT in teaching and learning does not only deal with introduction of new hardware and software, but both trainers and the students have to adopt new roles, and change their ICT behaviors and ways of teaching and learning. The fourth major problem identified in the study is related to matters related to this issue, teachers' professional competence. It is evident from the classroom English language teachers and directors reactions that teachers' professional competence was one of the problems of the effectiveness of practicing the plasma-channeled ELT.

Speed of the plasma presenters and shortage of time to do exercises were also among the major problems the study reveals. That is, the results obtained from almost all students indicated that the pace of the plasma presenters mismatched their pace of learning. Students mentioned that the medium was more appropriate to fast learner students. Teachers' responses also supported this. Experts also admitted that the speed of the presenters was beyond most of the students and they tried to improve this in the new plasma lessons. The findings reported here support the results of previously conducted studies like Aberash (2005), Tekeste (2006),Tewodros (2006), and Berhanu (2007).

Political and psychological views of some of the classroom teachers and students are considered to be as one of the major problems of the practice of the televised ELT. That is, some of the practitioners considered the technology as an issue of politics than as a pedagogical tool which enhances

the teaching learning process. Plasma was taken as a device the Government used f or political consumption. This assumption may be raised since the program was launched without the involvement of school communities. Another possible reason may be that the huge amount of money spent for the program. Some students also perceived that it was difficult to learn from the medium. From their precursor 'plasma students', they were informed that it was hard to follow plasma lessons. This makes them 'techno-phobic'; most of the students simply hate plasma.

It should be remembered here that most of the problems the results of the present study identified emerged from students' and teachers' self-reported data and observational data sources during the study span. A further look at may show additional root problems of the practice of the plasma-based English language teaching.

4.3.5 RQ5: What improvements have been made to overcome the problems?

In order to generate data on the improvements made to overcome the above problems that hampered the effectiveness of practicing the plasma-channeled ELT, efforts have been made during the study. That is, in order to see how the improvements have been carried out and whether or not improvements have been made to overcome those major problems identified in the preceding section, the researcher tired to look closely the processes of the improvements. The results of the study revealed that the speed of the presenters has been improved and sufficient time has also been given for the classroom teacher (the plasma has covered 20 minutes of the period and the rest 20 minutes have been given to the classroom teachers) in the improved plasma lessons. However, inadequate time has been given the students to perform televised activities and the accents of the presenters are still difficult for the students to understand. The frequency of the transmission both across content and per lesson was also not sufficient enough as compared to

the terminated English plasma lessons. During the study, it was noticed that most of the students and teachers were not clear about the improved plasma program. They expected regular transmission of the program as it was before.

As far as the results gained from experts are concerned, attempts were made to include interactive activities and sufficient time has been allocated to perform the activities in order to make the lessons student-centered. However, as has been discussed in the preceding section (4.3.3), the time allocation was not found to be sufficient to accomplish a given task. The activities ware also not found to be interactive. In fact, the activities displayed on the screen were lovely and relevant to provide knowledge inputs. Animations, simulations and demonstrations have also been included to make the activities attractive.

The digitization project has been found to be a good start. However, it seems that it needs further trial and training before launching the project on ground the reality. The project may serve as transforming the usual talk-chalk and book-teacher language learning into computer assisted language learning (CALL).

4.3.6 RQ6: In what ways is the improved televised ELT different from the previous one?

The finding of the present study indicated that both the new and old plasma-channeled English lessons are delivered in a blended approach. They combine the traditional face-to-face and ICT-based approaches. Contents are presented by a screen presenter using a technology and supported by a classroom teacher.

The following results were obt ained regarding the difference between the terminated and improved plasma-based ELT. The first difference is that the terminated plasma lessons are presented with a 75% and 25% while the improved ones were presented with 50% to 50% ratio. That is, the terminated

plasma instruction covers 30 minutes of the total 40 minutes. The remaining 10 minutes are given for the classroom teacher (5 minutes for introduction of the lesson to be transmitted and 5 minutes for recapping). The improved plasma instruction, on the other hand, lasts for 20 minutes and gives the remaining 20 minutes for the classroom teacher based on selected contents. The second major difference between the two is their regularity. Though the terminated plasma lessons have been broadcast regularly, the improved plasma lessons have been broadcast rarely based on selected contents. The third difference is the pace of the screen teachers. Presenters in the terminated plasma instruction were speedy whereas presenters in the new plasma lessons were a little bit slower. The other difference between the two is the nature of activities displayed on the screen. Most of activities of the old plasma lessons were out of the socio-background of students; most of demonstrative activities reflect South Africans cultures. In the new plasma lessons, however, an attempt has been made displaying demonstrative activities that reflect the image of Ethiopians cultural values.

It should be remembered here that a comparison of the practical practices of the two revealed that students and teachers use the medium as supportive instructional tool. They often rely on the conventional instruction. Even though new plasma lessons have been set up, the practice seemed to be as it was before. It is like 'new wine into old bottles'; else the new wine burst the bottles. That is, as new wine must be put into new bottles, the new plasma lessons must have been launched after trial and training of practitioners.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS FOR FUTURE RESEARCH

5.1 Introduction

In the preceding chapter, an attempt was made analyze and discuss the study findings. This chapter presents the summary of the major findings, conclusions, recommendations and implications for further research. That is, after presenting the summary of the findings, concluding remarks based on the results of the study will be made. This is followed by the presentation of recommendations for the identified problems. The chapter concludes by suggesting future studies that need to be undertaken to fill other gaps.

5.2 Summary of the Main Findings

The major findings of the study are summarized as follows.

1) The plasma TV program is developed as a blended approach. It combines televised instructions with face-to-face instruction; contents are delivered by a screen teacher in the form audio-video with the help of a classroom teacher monitoring and explanation. The practical delivery of the plasma-channeled English language instruction showed that the screen teachers' ways of presentation seemed to mismatch with students' level of understanding so that most students could not comprehend screen lessons. Moreover, even though the participation of students during the televised instruction was encouraging, they were provided with less support from their classroom teachers. The results also revealed that the required arrangements have not been made to English teachers and students when using the plasma-channeled English language instruction.

2) The results of the study regarding classroom teachers' knowledge of TPACK showed that teachers' subject matter knowledge (English language), pedagogy (how to teach the language), pedagogical content (the fused between content and methodology) and technological content (how educational technologies are used to provide new ways of teaching language skills and elements) are found to be satisfactory. On the other hand, their technological knowledge (teachers' ability to use or manipulate the plasma TV for instructional purposes), technological pedagogical knowledge (the ability to creatively use the plasma TV in a pedagogical context), and technological pedagogical content knowledge (the complex interrelationship between teachers' use of the plasma TV, instructional methods, and understanding of the subject matter) were found to be low. Moreover, the results related to the classroom teachers' application of these knowledge areas in the real plasma-based instruction revealed that teachers rarely used them.
3) The plasma- based English language lessons in Ethiopia are organized around tasks to be performed in the target language. It integrates group activities, pair works and individual exercises. The results of the study indicated that the nature of both the terminated and improved plasma-channeled English language activities seemed to be interesting/motivating, and relevant to provide knowledge inputs. They were also presented in accordance with the teaching materials, and helpful to develop students' language skills, especially to promote listening and pronunciation skills. However, they were difficult to be comprehended by the students.
4) During the study, an attempt was made identify the major problems that students and English language teachers encountered when they were using the plasma-based instruction. The principal problems were:
    a) Law awareness and negative attitude of students and teachers towards the Plasma TV Instruction. They did not have clear information about how the plasma-based instruction was organized and why it was

preferred over the usual conventional instruction. This made students and teachers have negative attitude towards the technology.

b) The disparity between teachers' and students' teaching-learning philosophy and the instructional technology based education. Most of the students and teachers believed that better knowledge is gained from face-to-face interactions and 'book-board' sources, not from the technology. They wanted to deal with people not machines.

c) Lack of systemic approach to implement the plasma-channeled instruction. The linkage between implementing bodies (broadcasters) and implementers (school community) seemed to be loose.

d) Lack of teachers' professional competence to use the plasma instruction in their language teaching.

e) Shortage of time to perform exercises and mismatch of the pace of the plasma presenter with students' pace of learning.

f) The political interpretations of teachers and psychological problems of students. That is, some of the teachers considered the technology as an issue of politics than as a pedagogical tool which enhances the teaching learning process. Some students were also simply anxious of plasma. From their precursor 'plasma students', they were informed that it was hard to follow plasma lessons.

5) The results of the study revealed that the speed of the presenters has been improved and sufficient time has been given for the classroom teacher in the improved plasma lessons. The nature of screen activities were also changed (animations, simulations and lovely demonstrations have been included). Moreover, efforts have also been made set up a digitization project. However, it was identified in the study that the awareness and attitude of teachers and students towards the plasma TV instruction and their teaching-learning philosophy seemed to be unchanged. They have negative attitude towards to use plasma and they preferred the conventional instruction. The overall systemic approach to

implement the plasma instruction also seemed to suffer as it was before; the linkage between the implementing bodies and implementers has found to be unsatisfactory.

6) The study indicated that the new and old plasma-channeled English language teaching are different in the following aspect:

- The new plasma lessons have been started with the plasma presenters and lasted for 20 minutes (the remaining 20 minutes have been given for the classroom teacher), but the old plasma lessons have begun with 5 minutes classroom teacher's introduction and after 30 minutes plasma lessons coverage, 5 minutes have been given for the classroom teachers for wind up broadcasted lessons.
- Though the terminated plasma lessons have been broadcasted regularly, the improved plasma lessons have been broadcasted infrequently based on the selected contents.
- Presenters in the terminated plasma instruction were speedy whereas presenters in the improved plasma lessons delivered the lessons at a normal speed.
- Most of the activities in the terminated plasma instructions were out of the socio-background of students; most of the demonstrative activities reflected South Africans cultures. In the improved plasma lessons, on the other hand, an attempted has been made display activities that reflect the image of Ethiopian cultural values.

5.3 Conclusions

Based on the findings of the study, it can be concluded that the mismatch between the screen teachers' presentations and the students' level of understanding, the classroom teachers' improper use of the technology, and the inadequate arrangements made for employing the program seemed to hamper the practical delivery of the plasma-channeled English language teaching.

The knowledge of the classroom teachers has also been found to be linked with subject matter knowledge and pedagogical knowledge; their technological pedagogical content knowledge was found to be low. As a result of this, classroom teachers used their pedagogical content knowledge in the plasma-based instruction. They hardly ever applied the technological pedagogical content knowledge which is the heart of good teaching with technology; that is, they could hardly ever teach lessons that combine English language contents (language skills and elements), the plasma-based instruction and teaching approaches appropriately. This affected the teaching-learning process as well.

According to the data obtained, the televised activities were interesting and designed in conjunction with the instructional print materials (students' book). They were also fitting to develop students' different language skills. However, the way screen activities were presented and the time allocation to perform them seemed to hinder students' participations. This made the students passive recipients of knowledge. That is, the way plasma lessons were presented make students pay attention to what is narrated on the TV screen instead of constructing their knowledge by involving themselves in doing various tasks and interacting with their fellow students and classroom teachers.

The major challenges of students and English language teachers in using the plasma TV instruction were found to be closely linked with problems like awareness, attitude, teaching-learning philosophy, administrative linkage, professional competency, time, pace, psychology and politics. To overcome those problems, the time covered by the plasma presenters and classroom teachers has become equal, and the speed of screen teachers' presentations has been improved so far. Moreover, though there are some slight differences between the terminated and improved plasma-based English language lessons, some of the problems identified in this study are still remaining with there.

In a nutshell, it is reasonable to conclude that the plasma presenters' ways of delivery, the classroom teachers' knowledge of TPACK, the nature of televised activities, systemic linkages, awareness and attitude basically seemed to negatively influence the effectiveness of the practice of the plasma-channeled ELT in the study area.

5.4 Recommendations

In this study, some gaps have become clear. To fill these gaps and to use the plasma-channeled English language instruction effectively, the following recommendations are suggested:

- In using the plasma TV as instructional tool, what seems to be missing is an overall awareness of the use of the medium. Therefore, much has to be done on awareness creation towards the functions and aims of new technology. Moreover, since the teaching-learning processes of the plasma-based instruction are different from the teaching-learning philosophy students and teachers had, trainings should be given to key practitioners in order to retain philosophies of technology-based instructions.
- As data in this study indicated, teachers merely knew and applied the content and pedagogical knowledge of the subject they were supposed to teach using the plasma TV instruction. Knowing only these knowledge areas is not enough for the effective implementation of the plasma-based English language instruction. Classroom teachers also need to develop their technological pedagogical content knowledge. Therefore, on-job trainings should be given to in-service teachers so as to develop their knowledge of TPACK in the form of workshops and seminars, using the plasma TV or the Continues Professional Development program.
- As far as literature works on Ethiopian English language teacher education and the syllabi reviewed are concerned, content knowledge and pedagogical knowledge were given due attention. Teacher education institutions trained teachers both in subject matter knowledge and pedagogical knowledge. Hence, teacher preparation programs should also integrate teachers' knowledge of technology

(using the plasma-based instruction in teaching), pedagogy (teaching how to teach) and content (teaching about the subject matter).

- It was found that most of students could not seem to comprehend screen activities. This might be due to the low students' English language proficiency or the activities might not be prepared in accordance with the students' level of learning competence. Therefore, classroom teachers ought to provide the students additional clarifications and encourage them to develop a habit of going through beforehand the activities in their textbooks that the plasma will cover. Teachers should also prepare their own supplementary materials whenever they feel that the ones on the plasma screen are inadequate to impart the required content. What is more, since insufficient time was allocated to perform the activities, the time given must be improved. Besides, classroom teachers and learners should be very conscious of time in doing the activities in order to minimize the time constraint they may encounter.
- The necessary support services and facilities ought to be fulfilled for reception ends (schools) and the top management and other leaders at every level should work in harmony. Self-access centers (SACs) should also be arranged in schools which enable teachers and students to review broadcasted and/or will be broadcasted lessons. Moreover, a habit of using a mix of technology such as Internet, Intranet, CD-ROM, Digital Video Disc (DVD) format and others should be developed.
- The digitization project has been found to a good start to strengthen the effectiveness of the plasma-channeled ELT. However, the use of Information Communication Technology (ICT) cannot be realized without introducing computers to the practitioners. For this reason, efforts should be made to train students and teachers and encourage them to use computers. And then the satellite TV program should be

stabilized by launching Computer Assisted language Learning (CALL). In this respect English Language departments must work hand-in-hand with school administrators and ICT teachers.

5.5 Implications for Future Research

Though it is believed that this study helps to make clear the practices of the plasma-based English language teaching and to fill some gaps, there are remaining some areas that are yet unexplored. That is, it would be extraordinarily important that future studies investigate the impact of the plasma-channeled instruction on students' English language learning. Further studies can also be carried out to look into the effect of the technology on classroom teachers' professional competency. Moreover, since participants in this study were preparatory school students (grades 11 and 12), a similar study may be carried out on general secondary school students (grades 9 and 10).

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Appendix A

Data Collection Instruments

Appendix A1: Original Version of Questionnaire to Students (Pilot Study)

Addis Ababa University
School of Graduate Studies
Faculty of Language Studies
Department of Foreign Languages and Literature

General Directions

This questionnaire is designed to obtain information regarding the overall effectiveness of the practices of the plasma-channeled English Language Teaching (ELT) and its development. The response for each item in the questionnaire could be of great help to the intended purpose. Therefore, the researcher kindly requests your honesty reply. Your responses are confidential and will be only used for the academic purpose. If you do not want to answer all or some of the items, you do have the right to do so. However, your willingness to answer all of the questions would be appreciated

Please remember that this is not a test, it is a questionnaire. There are no correct or incorrect answers. What matters is your own idea and impression, so answer sincerely.

Each of the items has one or more answers. Please put an 'X' in the space provided that corresponds to the responses you select. When you are asked to provide information, please write your responses in the space provided. There is no time limit to complete the questionnaire, but do not spend too much time on any one item.

Thank You for Your Cooperation in Advance!

Part I: Student's Background Information

1. School name:_____
2. Grade: _____
3. Gender: □ male □ female
4. For how many years have you learnt English through plasma TV? □1 □2 □3□4 or more
5. Do you watch TV at home? □Yes □No
6. How often do you watch TV programs (e.g., news, film, etc.) in English language?

   □ Always □ Sometimes □ Undecided □ Rarely □Not at all
7. If you watch TV programs in English language (e.g., news, film, etc.) at home, how helpful are they in your plasma-based English language instruction?

   □Very helpful□Somewhat helpful □Undecided □Somewhat unhelpful□Very unhelpful

Part II. Activities Concerned with Plasma Presenter, Classroom Teachers and Students

Direction: Please read the items in the table below and put an 'X' in the box that best describes your own impression. **Key to numbers: *4 – Always; 3 – Sometimes; 2 – Undecided; 1 – Rarely; 0 -Never***

S/ No		*Scales*				
		4	3	2	1	0
	How often does the plasma TV presenter perform the following activities?					
1	S/he presents the lessons at a normal speed					
2	S/he explains lessons in clear and understandable manner					
3	S/he demonstrates for us how to do the activities/exercises					
4	S/he tells us the ways(strategies) to develop language skills					
5	S/he allows the classroom teacher to assist us					
6	S/he gives us sufficient time to perform activities/ exercises					
	How often does the classroom teacher perform the following activities?	4	3	2	1	0
1	S/he explains the objectives of the daily plasma lessons					
2	S/he encourages me to watch the programs carefully					
3	S/he arranges the class to do in groups and/or pairs as per the plasma presenter's instructions					
4	S/he assists me when(ever) I am in need of help					
5	S/he generates tasks which I can do as a result of watching the program					
6	S/he mutes the transmissions to give me further explanation					
7	S/he switches off the televised lessons and teaches in conventional (traditional) instruction					
8	S/he prepares supplementary activities other than the plasma lessons					
9	S/he employs effective teaching styles and technical skills					
10	S/he recaps the televised lessons by integrating them with the textbook					
	How often do you perform the following activities?	4	3	2	1	0
1	I go through the lessons in my text book that I am going to learn via the plasma					
2	I pay attention to the presentations on the plasma TV and/or the classroom teacher's explanations					
3	I make effort to do the tasks as instructed by the plasma teacher and/or the classroom teacher					
4	I ask the classroom teacher for clarification if the plasma teacher's presentations are not clear					
5	~~I perform tasks in collaboration with my classmates~~					
	How often do you do or feel the following behaviors while attending the plasma-based English lessons?	4	3	2	1	0
6	I feel sleep					
7	I play with my partner					
8	I click or chew my pen					
9	I doodle /draw on my table or exercise book					
10	I joke at the plasma lessons					

Part III. Student's Perceptions on the Nature of Terminated and Improved Plasma-Channeled English Language Activities

Directions: *Please put an 'X' in the box that describes your viewpoint about the terminated plasma- based English language lessons.* (***Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree***)

S/ No	The terminated plasma- based English language activities were:	*Scales*				
		4	3	2	1	0
1	well organized					
2	interesting to learn English					
3	covered skills that I need to practise					
4	organized in a reasonable amount of time					
5	easy to perform					
6	conducive to internalize newly introduced language					
7	authentic - i.e. like real-life English					
8	proper to the right level for my current English ability					
9	suitable for my English language learning					
10	Please add any other comments you have concerning the terminated plasma- based English language activities. _____ _____ _____					

~~**Directions:** Please put an 'X' in the box that best describes your **expectations** of the improved (overhauled) plasma-based English language lessons. (***Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree***)~~

~~S/ No~~	~~The improved plasma- based English language activities are:~~	*Scales*				
		4	3	2	1	0
~~1~~	~~well organized~~					
~~2~~	~~interesting to learn English~~					
~~3~~	~~covered skills that I need to practise~~					
~~4~~	~~organized in a reasonable amount of time~~					
~~5~~	~~easy to perform~~					
~~6~~	~~conducive to internalize newly introduced language~~					
~~7~~	~~authentic - i.e. like real-life English~~					
~~8~~	~~proper to the right level for my current English ability~~					
~~9~~	~~suitable for my English language learning~~					
~~10~~	~~Please add any other comments you have concerning the improved (overhauled) plasma-based English language activities.~~ _____ _____ _____					

Part IV. Facilities

Directions: *Please read the items, and put an 'X' in the box that is most correct about facilities you provided with when you were taught English language with plasma TV.*

S/No	Items	Yes	No	Don't know
1	Seats were suitable to perform televised lessons			
2	The plasma screen was installed at reasonable viewing distance			
3	The classroom had shiny nature which is reflected onto the plasma screen			
4	Exterior and/or interior noises were common			
5	Black/whiteboard was located at teacher's station			
6	I was provided with:			
	a) Textbook			
	b) student's manual			
	c) English language resource materials			
	d) broadcasted plasma lessons video series			
	e) Self Access Centers(SACs) to review broadcasted lessons			
7	Please add any other comments you have concerning facilities regarding the plasma-based English language _____ _____ _____			

Part V. Students' Awareness about the Plasma-channeled English Language Program

Directions: *Please read the statement in the table below and place an 'X' in the box that you feel is most correct about the terminated televised English language instruction.*

Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree)

S/ No	The terminated plasma-channeled	Scales				
		4	3	2	1	0
1	I had information about how the plasma program is planned					
2	I knew the reasons the plasma TV is used for the English language instruction					
3	I knew the goals and rational of the plasma-based English language instruction					
4	I knew the transmission process of the program					
5	I had awareness about how the televised English language program is implemented					

Directions: *Please read the statement in the table below and place an 'X' in the box that best describes your feeling about plasma-based English language program which will be improved (overhauled).*

Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree)

S/ No	The Improved plasma-channeled	Scales				
		4	3	2	1	0
1	I have information about how the improved plasma- channeled English language program is planned					
2	I know the reasons the plasma TV is used for the English language instruction					
3	I know the goals and rational of the improved plasma-based English language instruction					
4	I know the transmission process of the program					
5	I have awareness about how the televised English language program is implemented					

Part VI: Effectiveness of the Plasma-channeled English Language Instruction

Directions: *Please read the items, and put an 'X' in the box that is most correct about the overall effectiveness of the plasma-channeled English language instruction.* (***Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree***)

1 The plasma-channeled English language instruction:	**4**	**3**	**2**	**1**	**0**
i. was helpful to improve my English language skills.	☐	☐	☐	☐	☐
ii. enabled me to achieve good results/marks.	☐	☐	☐	☐	☐
iii. assisted me to learn English more effectively.	☐	☐	☐	☐	☐
iv. helped met to have quality English language lessons.	☐	☐	☐	☐	☐
v. provided me standardized English language education.	☐	☐	☐	☐	☐

2. How do you rate the overall effectiveness of the practices of the plasma-mode of English language teaching?

   ☐Very Effective ☐ Effective ☐Fair ☐Ineffective ☐Very Ineffective

3. If you feel that you can mention some comments on the effectiveness of the practices of the plasma-based English language education, please list them down:

   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____

4. If you found any of the items confusing, please write the numbers and comment on them here.

_____
_____
_____
_____

Appendix A2: Amharic Version of Students' Questionnaire(Pilot Study)

አዲስ አበባ ዩኒቨርስቲ
የቋንቋች ጥናት ፋኩሊቲ
የውጭ ቋንቋዎችና ስነ-ጽሁፍ ትምህርት ክፍል
ለተማሪዎች የቀረበ መጠይቅ

አጠቃላይ መመሪያ

ይህ መጠይቅ በፕላዝማ ቴሌቪዥን የሚሰራጨውን የአንግሊዝኛ ቋንቋ ትምህርት ውጤታማነትና እስድገት ለመፈተሽ፣ ብሎም በመማር ማስትማሩ ሂደት የሚገጥሙ ችግሮችን ለመለየትና መፍትሄ ለመሻት ታታልሞ የተዘጋጀ ነዉ:: ለእያንዳንዱ ጥያቄ የሚሰጡት መልሶች ለጥናቱ መሳካት በጣም አስፈላጊዎች ናቸዉ:: በመሆኑም የሚሰጡት መልሶች ግልፅና ትክክል እስንዲሆኑ በትህትና እስጠይቃለሁ:: ለመጠይቁም የሚሰጡት መረጃዎች ሁሉ በሚስጥር የሚያዙና ለጥናቱ ዓላማ ብቻ የሚውሉ ናቸው::በዚህ መጠይቅ ውስጥ ያለውን የትኛውንም ለመመለስ የማትፈልጉትን ጥያቄ ወይም ጠቀላላውን ጥያቄ ላለመመለስ መብታችሁ የተጠበቀ ነው:: ነገር ግን ለመጠይቁ መልስ በመስጠት ቢተባበሩኝ ለጥናቱ መሳካት የበኩለዎን ድርሻ ተወጡ ማለት ነው::

ልብ በሉ ይህ መጠይቅ ፈተና አይደለም:: ትክክል ወይም ስህተት የሚባል መልስ የለዉም፣ የሚፈለገዉ ለፕሮግራሙ ያላችሁ ትክክለኛ አስተሳሰብ ነዉ:: እስያንዳንዱ ጥያቄ አንድ ወይም ከአንድ በላይ መልስ ሊኖረው ይችላል:: የመረጣችሁትን መልስ በተዘጋጀው ቦታ ዮ'X' ምልክት በማድርግ አመልክቱ:: ተጨማሪ መረጃ እስንድትሰጡ ከተጠየቃችሁ ደግሞ በተዘጋጀው ባዶ ቦታ ጻፉ:: መጠይቁን ሞልቶ ለማጠናቀቅ ውስን የጊዜ ገደብ የለውም፤ ሆኖም ግን ለአንድ ጥያቄ ብዙ ጊዜ በመውሰድ እስንዳታባክኑ በትህትና አስገነዝባለሁ::

ለትብብራችሁ በቅድሚያ አመሰግናለሁ::

I. የተማሪው ዳራ

1. የት/ ቤቱ ስም:- _____
2. ክፍል:- _____
3. ፆታ:- ☐ ወንድ ☐ ሴት
4. ለምን ያህል ዓመታት በፕላዝማ ቴሌቪዥን የእንግሊዝኛን ቋንቋ ተማርሽ/ክ?
   ☐1 ☐2 ☐3 ☐4 ወይም ከዚያ በላይ

5. ቤተሰቦችሽ/ህ ቴሌቪዥን አላቸው? ☐አዎ ☐የላቸውም
6. ለምን ያህል ጊዜ በእንግሊዝኛ ቋንቋ የሚተላለፉ ፕሮግራሞችን(ለምሳሌ እስንደ ዜና፣ ፊልም የመሳሰሉትን) በተሌቪዥን ትከታተላያሽ/ለህ?
   ☐ሁል ጊዜ ☐አልፎ አልፎ ☐በመጠኑ ☐በጣም በመጠኑ ☐በፍፁም

7. በእንግሊዝኛ ቋንቋ የሚተላለፉ ፕሮግራሞችን (ለምሳሌ እስንደ ዜና፣ ፊልም የመሳሰሉትን) በተሌቪዥን የምትከታተዪ/ል ከሆነ ምን ያህል በፕላዝማ ቴሌቪዥን የአንግሊዝኛን ቋንቋ ለመማር እረዳሽ/ህ?
   ☐በጣም ረድቶኛል ☐በመጠኑ ረድቶኛል ☐ለመወሰን ያዳግታል
   ☐በመጠኑም ቢሆን አልረዳኝም ☐ ፈጽሞ አልረዳኝም

II. የፕላዝማ ቴሌቪዥን መምህሯ/ሩ፣የክፍል ውስጥ መምህሯ/ሩ እና የተማሪው ተሳትፎን በተመለከተ

መመሪያ፡- በሰንጠረዡ ውስጥ የሚገኙትን ሃሳቦች በጥሞና ካነበብሽ/ክ በኋላ ከሀሳብሽ/ህ ጋር የሚሄደውን በተዘጋጀው ሳጥን ውስጥ የ 'X' ምልክት በማድርግ አመልክች/ት::

መግለጫ፡- 4 - ሁልጊዜ 3 - አልፎ አልፎ 2 - ለመወሰን ያዳግታል 1 - በመጠኑ 0 - በፍፁም

ተ/ቁ		መለኪያ				
	ለምን ያህል ጊዜ የፕላዝማ መምህሯ/ሩ የሚከተሉትን ያከናውናሉ?	4	3	2	1	0
1	ትምህርቱን ሲያቀርቡ በሚመጥን ፍጥነት ነው					
2	ትምህርቱን ግልጽ በሆነና በሚገባ መልኩ ያስረዳሉ					
3	መልመጃዎች እንዴት እንደሚሰሩ ያሳዩናል					
4	የቋንቋ ክሂሎችን ለማበልፀግ የሚረዱ ስልቶችን(ዘዴዎችን) ይነግሩናል					
5	የክፍል ዉስጥ መምህሯ/ሩ እስገዛ እንዲያደርጉልን በቂ ጊዜ ይሰጡናል					
6	መልመጃዎችን ለመስራት በቂ ጊዜ ይሰጡናል					
	ለምን ያህል ጊዜ የክፍል ዉስጥ እንግሊዝኛ መምህሯ/ሩ የሚከተሉትን ከፕላዝማው ስርጭት በፊት፣ በስርጭት ጊዜና ከስርጭት በኋላ ያከናውናሉ?	4	3	2	1	0
1	የየክለቱን የፕላዝማ ትምህርት አላማ ያብራሩልናል					
2	የሚተላለፉ ፕሮግራሞችን በጥሞና እንድከታተል ያበረታቱኛል					
3	የፕላዝማ መምህሯ/ሩ በምታዘው/በሚያሚያዘው መሰረት መልመጃዎችን በቡድን እንዲሁም በጥንድ እንድንሰራ ያደርጉናል					
4	ትርዳታ ስሻ አስፈላጊዉን ትብብር ያደርጉልኛል					
5	በፕላዝማ ቴሌቪዥን በማየው መሰረት ልሰራቸው የምችላቸውን መልመጃዎችን ይሰጡኛል					
6	የቴሌቭዥን ፕሮግራሙን ቆም እያደረጉ/mute/ ተጨማሪ ገለጻ ይሰጡናል					
7	የፕላዝማ ቴሌቪዥኑን እስያጠፉ ገፅ - ለገፅ እስንድንማማር ያደርጋሉ					
8	በፕላዝማው ከሚተላለፉት ፕሮግራሞች በተጨማሪ መልመጃዎችንና ኖቶችን እስያዘጋጁ ያስተምሩናል					
9	በፕላዝማው ሲያስተምሩን ጠቃሚ የማስተማር ስልቶችንና ክሂሎችን ይጠቀማሉ					
10	በቴሌቭዥን የተላላፉትን ትምህርቶች ከመጻፋችን ጋር እስያጣመሩ ማጠቃለያ ይሰጡናል					
	ለምን ያህል ጊዜ የሚከተሉትን ትከውኛለሽ/ናለህ?	4	3	2	1	0
1	በፕላዝማ የሚሰራጨ ትምህርቶችን ቀድሜ ከመማሪያ መጽሀፌ እቃኛለሁ					
2	በፕላዝማ የሚስራጩትን ሆነ በክፍል ውስጥ መምህሩ የሚሰጡትን ገለፃዎች በአትኩሮት እከታተላለሁ					
3	የፕላዝማ ቴሌቪዥኑ መምህር ሆነ የክፍል ውስጥ መምህሩ በሚያዙት መሰረት መልመጃዎችን ለመስራት እጥራለሁ					
4	በፕላዝማ መምህሯ/ሩ የሚሰጠው ገለፃ ግልፅ ካልሆነልኝ የክፍል ውስጥ መምህሩን ተጨማሪ ማብራሪያ እንዲሰጡኝ እጠይቃለሁ					
~~5~~	~~መልመጃዎችን ከክፍል ባልደረቦቼ ጋር በመቀባበር እሰራለሁ~~					
	በፕላዝማ የሚሰራጨ የእንሊዝኛ ትምህርቶችን ስትከታዪ/ተል የሚከተሉት ባህርያት ለምን ያህል ጊዜ ያጋጥሙሻል/ሃል?	4	3	2	1	0
6	የእንቅልፍ ስሜት ይሰማኛል					
7	ከክፍል ጓደኛዬ ጋር እስጫወታለሁ					
8	እስኪብርቶ አንቀጫቀጫለሁ/አኝካለሁ					
9	ጠረጴዛ ወይም ደብተር ላይ እስጫጭራለሁ					
10	በፕላዝማ የሚሰራጨ ትምህርቶች ላይ እስቀልዳለሁ					

III. ሥለ ተቋረጠውና ሥለሚሻሻለው የፕላዝማ እንግሊዝኛ ትምህርት መልመጃዎች የተማሪው አስተሳሰብ፡፡

መመሪያ፡- በሰንጠረዡ ውስጥ የሚገኙትን ሃሳቦች በጥሞና ካነበባችሁ በኋላ ስለተቋረጠው ፕላዝማን መሰረት ስላደረገው የእንግሊዝኛ ትምህርት መልመጃዎች ያላችሁን አመለካከት በተዘጋጀው ሳጥን ውስጥ የ'X' *ምልክት በማድርግ* አመልክቱ፡፡

መግለጫ፡- 4 - በጣም እስስማማለሁ፣ 3 - እስስማማለሁ፣ 2 - መወሰን ያዳግታል፣ 1 - አልስማማም፣ 0 - በጣም አልስማማም

ተ/ቁ	የተቋረጠው የፕላዝማ እንግሊዝኛ ትምህርት መልመጃዎች፡-	መለኪያ				
		4	3	2	1	0
1	በደንብ የተቀናጁ ናቸው					
2	የእንግሊዝኛን ቋንቋ ለመማር ፍላጎት ያሳድራሉ					
3	ላበለጽጋቸው የምሻቸውን የቋንቋ ክሂሎች ይሸፍናሉ					
4	አስፈላጊው ጊዜ ተመድቦላቸው ተደራጅተዋል					
5	ለመስራት ይቀላሉ					
6	አዳዲስ የቋንቋ ክሂሎችን ለመረዳት ምቹ ናቸው					
7	በእለት ተእለት ግንኙነት በተግባር የሚያገለግሉ ናቸው					
8	ካለኝ የእንግሊዝኛ ቋንቋ ብቃት ደረጃ ጋር ይጣጣማሉ					
9	የእንግሊዝኛ ቋንቋን ለመማር ምቹ ናቸው					
10	ስለተቋረጠው የፕላዝማ እንግሊዝኛ ትምህርት መልመጃዎች ሌሎች ተጨማሪ አስተያየቶች ካለሽ/ህ በዝርዝር አስቀምጪአቸዉ/ጣቸዉ _____ _____ _____					

~~**መመሪያ፡-** በሰንጠረዡ ውስጥ የሚገኙትን ሃሳቦች በጥሞና ካነበባችሁ በኋላ ስለሚሻሻለው የፕላዝማ እንግሊዝኛ ትምህርት መልመጃዎች ያላችሁን አመለካከት (ይሆናል ብላችሁ የምታስቡትን) በተዘጋጀው ሳጥን ውስጥ የ'X' *ምልክት በማድርግ* አመልክቱ፡፡~~

~~**መግለጫ፡-** 4 - በጣም እስማማለሁ፣ 3 - እስማማለሁ፣ 2 - መወሰን ያዳግታል፣ 1 - አልስማማም፣ 0 - በጣም አልስማማም~~

~~ቁ/ቁ~~	~~የሚሻሻለው የፕላዝማ እንግሊዝኛ ትምህርት መልመጃዎች፡-~~	~~መለኪያ~~				
		~~4~~	~~3~~	~~2~~	~~1~~	~~0~~
~~1~~	~~በደንብ የተቀናጁ ናቸው~~					
~~2~~	~~የእንግሊዝኛን ቋንቋ ለመማር ፍላጎት ያሳድራሉ~~					
~~3~~	~~ላበለጽጋቸው የምሻቸውን የቋንቋ ክሂሎች ይሸፍናሉ~~					
~~4~~	~~አስፈላጊው ጊዜ ተመድቦላቸው ተደራጅተዋል~~					
~~5~~	~~ለመስራት ይቀላሉ~~					
~~6~~	~~አዳዲስ የቋንቋ ክሂሎችን ለመረዳት ምቹ ናቸው~~					
~~7~~	~~በእለት ተእለት ግንኙነት በተግባር የሚያገለግሉ ናቸው~~					
~~8~~	~~ካለኝ የእንግሊዝኛ ቋንቋ ብቃት ደረጃ ጋር ይጣጣማሉ~~					
~~9~~	~~የእንግሊዝኛ ቋንቋን ለመማር ምቹ ናቸው~~					
~~10~~	~~ስለሚሻሻለው የፕላዝማ እንግሊዝኛ ትምህርት መልመጃዎች ሌሎች ተጨማሪ አስተያየቶች ካለሽ/ህ በዝርዝር አስቀምጪአቸዉ/ጣቸዉ~~ ~~_____~~ ~~_____~~ ~~_____~~					

IV. አስፈላጊ ነገሮች(Facilities)

መመሪያ፡- በስንጠረዡ ውስጥ የሚገኙትን ሃሳቦች በጥሞና ካነበባችሁ በኋላ በፕላዝማ ቴሌቪዥን በምትማሩበት ጊዜ የሚያስፈልጉ ነገሮችን መሟላት በተመለከተ በቀረጋጀው ሳጥን ውስጥ የ'X' ምልክት በማድረግ አመልክቱ።

ቁ/ቁ		አዎ	አይ	አላውቀውም
1	መቀመጫዎች በቴሌቭዥን የሚተላለፉትን ትምህርቶች ለመስራት ምቹ ናቸው			
2	በፕላዝማ ቴሌቪዥኑ የቀረበለው ለእይታ በሚያመች እርቀት ላይ ነው			
3	የምማርበት ክፍል በፕላዝማ ቴሌቭዥኑ ላይ የማንጸባረቅ ባህሪ አለው			
4	ውጫዊ እና/ወይም ውስጣዊ ጫጫታዎች ይዘወተራሉ			
5	ለሌዳ ለክፍል ውስጥ መምህራ/ሩ በሚያመች ሁኔታ ተዘጋጅቷል			
6	የሚከተሉት ተሟልተውልኛል፡-			
	ሀ) የመማሪያ መጽሐፍ			
	ለ) የተማሪው መልማመጃ			
	ሐ) የእንግሊዝኛ ቋንቋ ማጣቀሻ መጻሕፍት			
	መ) የተሰራጨ ፕላዝማ ትምህርቶች ቪድዮ ቅጅ			
	ሠ) የተሰራጨ ፕላዝማ ትምህርቶችን የምክልስበት ማእክል			
7	በፕላዝማ ስለሚሰራጨው የእንግሊዝኛ ትምህርት መሟላት ስላለባቸው ሌሎች ተጨማሪ ነገሮች አስተያየት ካለሽ/ህ በዝርዝር አስቀምጪአቸዉ/ጣቸዉ _____ _____ _____ _____ _____			

V. በፕላዝማ ቴሌቪዥን ስለሚሰራጨው የእንግሊዝኛ ትምህርት ፕሮግራም የተማሪው ግንዛቤ::

መመሪያ:- በሰንጠረዡ ውስጥ የሚገኙትን ሃሳቦች በጥሞና ካነበባችሁ በኋላ ስለተቋረጠው የፕላዝማ እንግሊዝኛ ትምህርት ፕሮግራም በተመለከተ ያላችሁን ግንዛቤ በተዘጋጀው ቦታ የ'X' ምልክት በማድርግ አመልክቱ::

መግለጫ:- 4 - በጣም እስማማለሁ፣ 3 - እስማማለሁ፣ 2 - መወሰን ያዳግታል፣ 1 - አልስማማም፣ 0 - በጣም አልስማማም

ተ/ቁ	ስለተቋረጠው የፕላዝማ እንግሊዝኛ ትምህርት:-	መለኪያ				
		4	3	2	1	0
1	ፕሮግራሙ እንዴት እንደታቀደ መረጃ ነበረኝ					
2	የእንግሊዝኛን ቋንቋ በፕላዝማ ቴሌቪዥን ለምን ማስተማር እንዳስፈለገ አውቃለሁ					
3	በፕላዝማ ስለሚሰራጨው የእንግሊዝኛ ትምህርት ዓላማና አስፈላጊነት አውቃለሁ					
2	ስለፕሮራሙ ስርጭት ሂደት ግንዛቤ ነበረኝ					
5	በፕላዝማ ቴሌቪዥን የሚሰራጨው የእንግሊዝኛ ትምህርት እንዴት መተግበር እንዳለበት ግንዛቤ ነበረኝ					

መመሪያ:- በሰንጠረዡ ውስጥ የሚገኙትን ሃሳቦች በጥሞና ካነበባችሁ በኋላ ሊሻሻል ስለታቀደው የፕላዝማ ቴሌቪዥን እንግሊዝኛ ትምህርት ፕሮግራም በተመለከተ ያላችሁን ግንዛቤ በተዘጋጀው ቦታ የ'X' ምልክት በማድርግ አመልክቱ::

መግለጫ:- 4 - በጣም እስማማለሁ፣ 3 - እስማማለሁ፣ 2 - መወሰን ያዳግታል፣ 1 - አልስማማም፣ 0 - በጣም አልስማማም

ተ/ቁ	ስለሚሻሻለው የፕላዝማ እንግሊዝኛ ትምህርት:-	መለኪያ				
		4	3	2	1	0
1	ፕሮግራሙ እንዴት እንደታቀደታ መረጃ አለኝ					
2	የእንግሊዝኛን ቋንቋ በፕላዝማ ቴሌቪዥን ለምን ማስተማር እንዳስፈለገ አውቃለሁ					
3	በፕላዝማ ስለሚሰራጨው የእንግሊዝኛ ትምህርት ዓላማና አስፈላጊነት አውቃለሁ					
2	ስለፕሮራሙ ስርጭት ሂደት ግንዛቤ አለኝ					
5	በፕላዝማ ቴሌቪዥን የሚሰራጨው የእንግሊዝኛ ትምህርት እንዴት መተግበር እንዳለበት ግንዛቤ አለኝ					

VI. በፕላዝማ ቴሌቪዥን የሚሰራጨው የእንግሊዝኛ ትምህርት ፕሮግራም ውጤታማነት

መመሪያ፡- የሚከሉትን ሃሳቦች በጥሞና ካነበባችሁ በኋላ በፕላዝማ ቴሌቪዥን ስለሚሰራጨው እንግሊዝኛ ትምህርት ፕሮግራም ውጤታማነትን መተመለከተ ያላችሁን አስተሳሰብ በተዘጋጀው ሳጥን ውስጥ የ 'X' ምልክት በማድርግ አመልክቱ፡፡ (**መግለጫ፡- 4 - በጣም እስማማለሁ፣ 3 - እስማማለሁ፣ 2 - መወሰን ያዳግታል፣ 1 - አልስማማም፣ 0 - በጣም አልስማማም**)

1 በፕላዝማ ቴሌቪዥን የሚሰራጨው የእንግሊዝኛ ትምህርት ፕሮግራም፡-	4	3	2	1	0
i. የእንግሊዝኛ ቋንቋ ክሂሎቼን እንዳሻሽል ጠቅሞኛል	☐	☐	☐	☐	☐
ii. ጥሩ ውጤት እዳመጣ አስችሎኛል	☐	☐	☐	☐	☐
iii. የ እንግሊዝኛን ትምህርት በተሻለ ምልኩ እንድማር እረድቶኛል	☐	☐	☐	☐	☐
iv. ጥራት ያለው የእንግሊዝኛ ትምህርት እእንዳገኝ አግዞኛል	☐	☐	☐	☐	☐
v. ደረጃውን የጠበቀ የእንግሊዝኛ ትምህርት እእንዲሰጠኝ አስችሏል	☐	☐	☐	☐	☐

2. በፕላዝማ ቴሌቪዥን ሲሰራጭ የነበረውን የእንግሊዝኛ ትምህርት አተገባበር ውጤታማነት በጥቅሉ እ ንዴት ትለኪዋለሽ/ ትለካዋለህ?

☐ በጣም ውጤታማ ☐ ውጤታማ ☐ በቂ ☐ ውጤታማ አይደለም ☐ በፍፁም ውጤታማ አይደለም

3. በፕላዝማ ቴሌቪዥን ስለሚሰራጨው እእንግሊዝኛ ትምህርት አተገባበር ውጤታማነት ወይም እእንቅፋት ናችው ብለሽ/ህ የምታስቢያቸዉን/ባቸዉን ሌሎች አስተያየቶች ካሉ በዝርዝር አስቀጪአቸዉ/ምጣቸዉ:-

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4. መጠይቁን ስትሞዪ/ላ ግልፅ ያልሆኑ ወይም ግራ የሚያጋቡ ጥያቄዎች ከገጠመሽ/ህ ቁጥራቸውንና አስተያየቶችሽን/ህን በዝርዝር ፃፊያቸው/ፃፉቸው፡፡

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Appendix A3: Original Version of Questionnaire to the English Language Teachers (Pilot Study)

Addis Ababa University
School of Graduate Studies
Faculty of Language Studies
Department of Foreign Languages and Literature

General Directions:

This questionnaire is designed to obtain information regarding the overall effectiveness of the practices of the plasma-channeled English Language Teaching (ELT) and its development. The response for each item in the questionnaire could be of great help to the intended purpose. Therefore, the researcher kindly requests your honesty reply. Your responses are confidential and will be only used for the academic purpose. Please remember that this is not a test, it is a questionnaire. If you do not want to answer all or some of the items, you do have the right to do so. However, your willingness to answer all of the questions would be appreciated. There are no correct or incorrect answers. What matters is your own idea and impression, so answer sincerely. Each of the items has one or more answers. Please put an 'X' in the space provided that corresponds to the responses you select. When you are asked to provide information, please write your responses in the space provided. There is no time limit to complete the questionnaire, but do not spend too much time on any one item. You do not have to write your name.

Thank you for your cooperation!

Part I: Teacher's Background Information

1. School name:_____
2. Gender: ☐ male ☐ female
3. Teaching experience:_____
4. For how many years you taught English through plasma TV: ☐1 ☐2 ☐3☐4☐5 or more
5. Qualification: ☐BA/BED ☐MA ☐others(please specify)_____
6. To what extent does your qualification prepare you for teaching English via plasma TV?
   ☐Very prepared☐Somewhat prepared ☐ Undecided ☐Somewhat unprepared ☐Very unprepared
7. How many courses did you take in your teaching training that focus on using technology for language teaching? ☐0 ☐1-2 ☐3-4 ☐5-6 ☐7 or more
8. Have you ever received any on-job training related to the utilization of plasma TV programs?
   ☐Yes ☐No
9. If you took any on-job training on how to utilize plasma TV programs, please indicate the training and its duration in the table below.

Training Utilization	Duration
Workshop	
Seminar	
Through plasma	
Others (please specify)	

10. Do you believe that the training helped you to employ the plasma-channeled English lessons effectively? ☐Yes ☐No
11. If you did not take any on-job training, what kind of training do you dream of? (please list them)

_____

Part II. Activities Concerned with Plasma Presenter, Classroom Teachers and Students

Directions: Please read the items in the table below and put an 'X' in the box that best describes your own impression. **Key to numbers:** ***4 – Always; 3 – Sometimes; 2 – Undecided; 1 – Rarely; 0 –Never***

S/ No		*Scales*				
		4	**3**	**2**	**1**	**0**
	How often does the plasma TV presenter perform the following activities?					
1	S/he presents the lessons at a normal speed					
2	S/he explains lessons in clear and understandable manner					
3	S/he demonstrates for students how to do the activities/exercises					
4	S/he tells students the ways(strategies) to develop language skills					
~~5~~	~~S/he allows me to assist students~~					
6	S/he gives students sufficient time to perform activities/ exercises					
	How often do you perform the following activities before, during, and after the televised instruction?	**4**	**3**	**2**	**1**	**0**
1	I explain the objectives of the daily plasma lessons					
~~2~~	~~I encourage my students to watch the programs carefully~~					
3	I arrange the class to do in groups and/or pairs as per the plasma presenter's instructions					
4	I assist my students when(ever) they are in need of help					
5	I generate tasks which students can do as a result of watching the program					
6	I mute the transmissions to give students further explanation					
~~7~~	~~I switch off the televised lessons and teach in conventional(traditional) instruction~~					
~~8~~	~~I prepare supplementary activities other than the plasma lessons~~					
9	I employ effective teaching styles and technical skills					
~~10~~	~~I recap the televised lessons by integrating them with the textbook~~					
	How often do your students perform the following activities?	**4**	**3**	**2**	**1**	**0**
~~1~~	~~They go through the lessons that they are going to learn via the plasma~~					
2	They pay attention to the presentations on the plasma TV and/or my explanations					
3	They make effort to do the tasks as instructed by the plasma teacher and/or me					
4	They ask me for clarification when they face difficulties to do the tasks or if the plasma presenter's explanations are not clear					
5	They perform tasks in collaboration with their classmates					
	How often do your students do or feel the following behaviors while attending the plasma-based English lessons?	**4**	**3**	**2**	**1**	**0**
6	They feel sleep					
7	They play with their partner					
8	They click or chew their pen					
9	They doodle /draw on their table or exercise book					
10	They joke at the plasma lessons					

Part III. English Language Teacher's Perceptions on the Nature of Terminated and Improved Plasma-Channeled English Language Activities

Directions: *Please put an 'X' in the box that describes your viewpoint about the terminated plasma- based English language lessons.* (***Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree***)

S/ No	The terminated plasma- based English language activities were:	*Scales*				
		4	3	2	1	0
1	well organized					
2	interesting to learn English					
3	covered skills that students need to practise					
4	organized in a reasonable amount of time					
5	easy to perform					
6	conducive to internalize newly introduced language					
7	authentic - i.e. like real-life English					
8	proper to the right level for students' current English ability					
9	suitable for your English language teaching					
10	Please add any other comments you have concerning the terminated plasma- based English language activities. _____ _____ _____					

~~**Directions**: Please put an 'X' in the box that best describes your **expectations** of the improved (overhauled) plasma-based English language lessons. (***Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree***)~~

~~S/ No~~	~~The improved plasma- based English language activities will be:~~	*Scales*				
		4	3	2	1	0
~~1~~	~~well organized~~					
~~2~~	~~interesting to learn English~~					
~~3~~	~~covered skills that students need to practise~~					
~~4~~	~~organized in a reasonable amount of time~~					
~~5~~	~~easy to perform~~					
~~6~~	~~conducive to internalize newly introduced language~~					
~~7~~	~~authentic - i.e. like real-life English~~					
~~8~~	~~proper to the right level for students' current English ability~~					
~~9~~	~~suitable for my English language teaching~~					
~~10~~	~~Please add any other comments you have concerning the improved (overhauled) plasma-based English language activities.~~ _____ _____ _____ _____ _____					

Part IV. Facilities

***Directions**: Please read the items, and put an 'X' in the box that is most correct about facilities you provided with when you taught English language with plasma TV.*

S/No	Items	Yes	No	Don't know
1	Seats were suitable to perform televised lessons			
2	The plasma screen was installed at reasonable viewing distance			
3	The classrooms had shiny nature which is reflected onto the plasma screen			
4	Exterior and/or interior noises were common			
5	Black/whiteboard was located at my station			
6	I was provided with:			
	a) student's book			
	b) teacher's manual			
	c) English language resource materials			
	d) plasma lessons video series			
7	Please add any other comments you have concerning facilities regarding the plasma-based English language _____ _____ _____ _____ _____			

Part V. English Language Teacher's Awareness about the Plasma-channeled English Language Program

Directions: *Please read the statement in the table below and place an 'X' in the box that you feel is most correct about the terminated televised English language instruction.*

Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree

S/ No	The terminated plasma-channeled	Scales				
		4	3	2	1	0
1	I had information about how the plasma program is planned					
2	I knew the reasons the plasma TV is used for the English language instruction					
3	I knew the goals and rational of the plasma-based English language instruction					
4	I knew the transmission process of the program					
5	I had awareness about how the televised English language program is implemented					

Directions: *Please read the statement in the table below and place an 'X' in the box that best describes your feeling about plasma-based English language program which will be improved (overhauled).*

Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree

S/ No	The Improved plasma-channeled	Scales				
		4	3	2	1	0
1	I have information about how the improved plasma- channeled English language program is planned					
2	I know the reasons the plasma TV is used for the English language instruction					
3	I know the goals and rational of the improved plasma-based English language instruction					
4	I know the transmission process of the program					
5	I have awareness about how the televised English language program is implemented					

Part VI: Effectiveness of the Plasma-channeled English Language Instruction

Directions: *Please read the items, and put an 'X' in the box that is most correct about the overall effectiveness of the plasma-channeled English language instruction.* (***Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree***)

1 The plasma-channeled English language instruction:	4	3	2	1	0
i. was helpful to improve students' English language skills.	☐	☐	☐	☐	☐
ii. enabled students to achieve good results/marks.	☐	☐	☐	☐	☐
iii. assisted me to teach English more effectively.	☐	☐	☐	☐	☐
iv. offered quality English language lessons.	☐	☐	☐	☐	☐
v. provided standardized English language education.	☐	☐	☐	☐	☐

2. How do you rate the overall effectiveness of the practices of the plasma-mode of English language teaching?

   ☐Very Effective ☐ Effective ☐Fair ☐Ineffective ☐Very Ineffective

3. If you feel that you can mention some comments on the effectiveness of the practices of the plasma-based English language education, please list them down:

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4. If you found any of the items confusing, please write the numbers and comment on them here.

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Appendix A4: Original Version of the Observation Checklist (Pilot Study)

Addis Ababa University
School of Graduate Studies
Faculty of Language Studies
Department of Foreign Languages and Literature

General Directions

This checklist is designed to obtain information regarding the overall effectiveness of the plasma-channeled ELT and its development through direct observation of the researcher and co-observers. It is used to examine the routines of the school settings and thereby observe the front line practitioners' activities in the school.

School Observed: _____ Date: _____
Class Observed: Grade____ Time _____ Topic of lesson _____
Class size: _____ Number of students in class: _____

Part I. Physical Settings

Instruction: Please read the items, and put an 'X' in the box that is correct about the physical settings of the school observed

S/ No	Items	Yes	No	Remarks
1	Each section is located in relation to other classrooms in school			
2	Exterior and/or interior noises are common			
3	Seats are suitable for group and/or pair works			
4	The plasma TV is located in a position convenient for every student			
~~5~~	~~All students are able to view the plasma screen with reasonable viewing distance~~			
~~6~~	~~There is enough space between each row to facilitate the televised lessons~~			
7	The classroom teacher is able to monitor both front and remote bench students			
8	The classrooms have shiny nature which is reflected onto the plasma screen			
9	Black/whiteboard is located at teacher's station			
~~10~~	~~The scene/ background of the classrooms are suitable for the televised instruction~~			
11	Please add if you have any other comments on physical settings of the school _____ _____ _____			

Part II. Activities Concerned with Plasma Presenter, Classroom Teachers and Students

Instruction: Put an 'X' in the representative box for your choice number that stands for the frequency of an activity to be observed in classroom.

Key to numbers: *4 Always 3 Sometimes 2 Undecided 1 Rarely 0 Never*

S/ No		*4*	*3*	*2*	*1*	*0*
A	**Activities concerned with the plasma presenter's performance**					
1	S/he presents the lessons at a normal speed					
2	S/he explains lessons in clear and understandable manner					
3	S/he demonstrates the class how to do the activities/exercises					
4	S/he tells students the ways(strategies) to develop language skills					
5	S/he allows the classroom teacher to assist students					
6	S/he gives students sufficient time to perform activities/ exercises					
B	**Activities Concerned with the classroom teacher's performance**	*4*	*3*	*2*	*1*	*0*
~~1~~	~~S/he explains the focuses/objectives of the daily plasma lessons~~					
2	S/he prepares students for the language items they are supposed to learn					
~~3~~	~~S/he encourages students to watch the program carefully~~					
~~4~~	~~S/he assists students when(ever) they are in need of help~~					
~~5~~	~~S/he generates tasks which students can do as a result of watching the program~~					
6	S/he mutes the transmissions to give students further explanation					
7	S/he switches off the televised lessons and teaches in conventional instruction					
8	S/he gives useful feedback on how students are going throughout the program					
9	S/he employs effective teaching styles and technical skills					
10	S/he recaps the televised lessons by integrating them with the textbook					
C	**Activities Concerned with students' participation**	*4*	*3*	*2*	*1*	*0*
~~1~~	~~They pay attention to the presentations on the plasma TV and/or the classroom teacher's explanations~~					
2	They make efforts to do tasks as instructed					
~~3~~	~~They ask for clarification when they face difficulties to do tasks or if the plasma presenter's explanations are not clear~~					
4	They perform tasks in collaboration with their classmates					
5	They are seen doing or feeling the following behaviors while watching the plasma-based English lessons:					
	i. feeling sleep					
	ii. playing with their partner					
	iii. clicking or chewing their pen					
	iv. doodling /drawing on their table or exercise book					
	~~v. joking at the plasma lessons~~					
6	Please add any other things observed _____ _____					

Part III. Assessments on Demonstrative Activities on the Plasma TV

Instructions: Please read the items, and put an 'X' in the box that is most correct about demonstrative activities displayed on the plasma TV to be observed in classroom using these scales: **2-Yes, completely; 1 - Yes, somewhat; 0 - No**

S/ No	Activities displayed on the plasma TV are:	Scales		
		2	1	0
1	clear to understand by the students			
2	easy to perform			
3	~~interesting to learn English~~			
4	covered skills that students need to practise			
5	~~related to the students socio-cultural background~~			
6	~~presented in a reasonable amount of time~~			
7	conducive to internalize newly introduced language			
8	~~authentic – i.e. like real-life English~~			
9	suitable for learning/teaching English language			

Part IV. Facilities

Instruction: Please read the items, and put an 'X' in the box that is most correct about facilities students and teachers provided with when they are using the plasma TV instruction.

S/ No	Students are provided with:	Yes	No
1	textbook		
2	student's and teacher's manual		
3	soft and/or hard copy of the program for teachers		
4	English language resource materials		
5	Self Access Centers(SACs) to review broadcasted lessons		
6	Please add any other comments you have concerning facilities regarding the plasma-based English language lessons _____ _____ _____		

Other things observed during plasma transmission:

_____

_____

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Appendix A5: Revised Version of Questionnaire to Students (Main Study)

Addis Ababa University
School of Graduate Studies
Faculty of Language Studies
Department of Foreign Languages and Literature

General Directions

This questionnaire is designed to obtain information regarding the overall effectiveness of the practices of the plasma-channeled English Language Teaching (ELT) and its development. The response for each item in the questionnaire could be of great help to the intended purpose. Therefore, the researcher kindly requests your honesty reply. Your responses are confidential and will be only used for the academic purpose. If you do not want to answer all or some of the items, you do have the right to do so. However, your willingness to answer all of the questions would be appreciated

Please remember that this is not a test, it is a questionnaire. There are no correct or incorrect answers. What matters is your own idea and impression, so answer sincerely.

Each of the items has one or more answers. Please put an 'X' in the space provided that corresponds to the responses you select. When you are asked to provide information, please write your responses in the space provided. There is no time limit to complete the questionnaire, but do not spend too much time on any one item.

Would you participate in responding to the questions in this questionnaire? ☐ Yes ☐ No

If yes, proceed to the next part.

If no, please stop here.

Thank You for Your Cooperation in Advance!

Part I: Student's Background Information

1. School name:_____
2. Grade: _____
3. Gender: ☐ male ☐ female
4. For how many years have you learnt English through plasma TV? ☐1 ☐2 ☐3☐4 or more
5. Do you watch TV at home? ☐Yes ☐No
6. How often do you watch TV programs (e.g., news, film, etc.) in English language?
   ☐ Always ☐ Sometimes ☐ Undecided ☐ Rarely ☐Not at all
7. If you watch TV programs in English language (e.g., news, film, etc.) at home, how helpful are they in your plasma-based English language instruction?
   ☐Very helpful☐Somewhat helpful ☐Undecided ☐Somewhat unhelpful☐Very unhelpful

Part II. Activities Concerned with Plasma Presenter, Classroom Teachers and Students

Direction: Please read the items in the table below and put an 'X' in the box that best describes your own impression.

Key to numbers: ***4 – Always; 3 – Sometimes; 2 – Undecided; 1 – Rarely; 0 -Never***

S/ No		*Response Rates*				
		4	**3**	**2**	**1**	**0**
A	How often does the plasma TV presenter perform the following activities?					
1	S/he presents the lessons at a normal speed.					
2	S/he explains lessons in clear and understandable manner.					
3	S/he demonstrates for us how to do the activities/exercises.					
4	S/he tells us the ways (strategies) to develop language skills.					
5	S/he allows the classroom teacher to assist us.					
6	S/he gives us sufficient time to perform activities/ exercises.					
B	How often does the classroom teacher perform the following activities?	**4**	**3**	**2**	**1**	**0**
1	S/he explains the objectives of the daily plasma lessons.					
2	S/he encourages me to watch the programs carefully.					
3	S/he arranges the class to do in groups and/or pairs as per the plasma presenter's instructions.					
4	S/he assists me when (ever) I am in need of help.					
5	S/he generates tasks which I can do as a result of watching the program.					
6	S/he recaps the televised lessons by integrating them with the textbook.					
C	How often do you perform the following activities?	**4**	**3**	**2**	**1**	**0**
1	I go through the lessons in my text book that I am going to learn via the plasma.					
2	I pay attention to the presentations on the plasma TV and/or the classroom teacher's explanations.					
3	I make effort to do the tasks as instructed by the plasma teacher and/or the classroom teacher.					
4	I ask the classroom teacher for clarification if the plasma teacher's presentations are not clear.					
	How often do you do or feel the following behaviors while attending the plasma-based English lessons?	**4**	**3**	**2**	**1**	**0**
5	I feel sleep					
6	I play with my partner					
7	I click or chew my pen					
8	I doodle /draw on my table or exercise book					
9	I joke at the plasma lessons					

Part III. Student's Perceptions on the Nature of Improved Plasma-Channeled English Language Activities

Directions: Please put an 'X' in the box that best describes your *viewpoints a bout* the **improved (overhauled)** plasma-based English language lessons. (***Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree***)

S/ No	The improved plasma- based English language activities are:	*Response Rates*				
		4	3	2	1	0
1	well organized.					
2	interesting to learn English.					
3	covered skills that I need to practice .					
4	organized in a reasonable amount of time.					
5	easy to perform.					
6	conducive to internalize newly introduced language.					
7	authentic - i.e. like real-life English.					
8	proper to the right level for my current English ability.					
9	suitable for my English language learning.					
10	Please add any other comments you have concerning the improved (overhauled) plasma-based English language activities. _____ _____ _____					

Part IV: Results of the Plasma-channeled English Language Instruction

Directions: *Please read the items, and put an 'X' in the box that is most correct about the overall effectiveness of the plasma-channeled English language instruction.*

(***Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree***)

1 The plasma-channeled English language instruction:	**4**	**3**	**2**	**1**	**0**
i. is helpful to improve my English language skills.	☐	☐	☐	☐	☐
ii. enables me to achieve good results/marks.	☐	☐	☐	☐	☐
iii. assists me to learn English more effectively.	☐	☐	☐	☐	☐
iv. helps met to have quality English language lessons.	☐	☐	☐	☐	☐
v. provides me standardized English language education.	☐	☐	☐	☐	☐

2. How do you rate the overall effectiveness of the practices of the plasma-mode of English language teaching?

   ☐Very Effective ☐ Effective ☐Fair ☐Ineffective ☐Very Ineffective

3. If you feel that you can mention some comments on the effectiveness of the practices of the plasma-based English language education, please list them down.

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Appendix A6: Revised Version of Amharic Version of Students' Questionnaire(Main Study)

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ለተማሪዎች የቀረበ መጠይቅ

አጠቃላይ መመሪያ

ይህ መጠይቅ በፕላዝማ ቴሌቪዥን የሚሰራጨውን የእንግሊዝኛ ቋንቋ ትምህርት ውጤታማነትና እድገት ለመፈተሽ፣ ብሎም በመማር ማስትማሩ ሂደት የሚገጥሙ ችግሮችን ለመለየትና መፍትሄ ለመሻት ታልሞ የተዘጋጀ ነዉ:: ለእያንዳንዱ ጥያቄ የሚሰጡት መልሶች ለጥናቱ መሳካት በጣም አስፈላጊዎች ናቸዉ:: በመሆኑም የሚሰጡት መልሶች ግልፅና ትክክል እንዲሆኑ በትህትና እጠይቃለሁ:: ለመጠይቁም የሚሰጡት መረጃዎች ሁሉ በሚስጥር የሚያዙና ለጥናቱ ዓላማ ብቻ የሚውሉ ናቸዉ::በዚህ መጠይቅ ውስጥ ያለውን የትኛውንም ለመመለስ የማትፈልጉትን ጥያቄ ወይም ጠቀላላውን ጥያቄ ላለመመለስ መብታችሁ የተጠበቀ ነው:: ነገር ግን ለመጠይቁ መልስ በመስጠት ብትተባበሩኝ ለጥናቱ መሳካት የበኩላችሁን ድርሻ ተወጣችሁ ማለት ነው::

ልብ በሉ ይህ መጠይቅ ፈተና አይደለም:: ትክክል ወይም ስህተት የሚባል መልስ የለዉም፣ የሚፈለገዉ ለፕሮግራሙ ያላችሁ ትክክለኛ አስተሳሰብ ነዉ:: እያንዳንዱ ጥያቄ አንድ ወይም ከአንድ በላይ መልስ ሊኖረው ይችላል:: የመረጣችሁትን መልስ በተዘጋጀው ቦታ የ 'X' ምልክት በማድርግ አመልክቱ:: ተጨማሪ መረጃ እንድትሰጡ ከተጠየቃችሁ ደግሞ በተዘጋጀው ባዶ ቦታ ጻፉ:: መጠይቁን ሞልቶ ለማጠናቀቅ ውስን የጊዜ ገደብ የለውም፤ ሆኖም ግን ለአንድ ጥያቄ ብዙ ጊዜ በመውሰድ እንዳታባክኑ በትህትና አስገነዝባለሁ::

መጠይቁን ለመመላት ፍቃደኛ ነህ/ነሽ? □አዎ □አይ

አዎ ካልህ/ሽ ወደሚቀጥለው ክፍል ቀጥል/ይ

አይ ካልህ/ሽ እዚህ ላይ አቁርጥ/ጭ::

ለትብብራችሁ በቅድሚያ አመሰግናለሁ::

I. የተማሪው ዳራ

1. የት/ ቤቱ ስም:- _____
2. ክፍል:- _____
3. ፆታ:- □ ወንድ □ ሴት
4. ለምን ያህል ዓመታት በፕላዝማ ቴሌቪዥን የእንግሊዝኛን ቋንቋ ተማርሽ/ክ?

   □1 □2 □3 □4 ወይም ከዚያ በላይ

5. ቤተሰቦችሽ/ህ ቴሌቪዥን አላቸው? □አዎ □የላቸውም
6. ለምን ያህል ጊዜ በእንግሊዝኛ ቋንቋ የሚተላለፉ ፕሮግራሞችን(ለምሳሌ እንደ ዜና፣ ፊልም የመሳሰሉትን) በተሌቪዥን ትከታተላያሽ/ለህ?

   □ሁል ጊዜ □አልፎ አልፎ □በመጠኑ □በጣም በመጠኑ □በፍፁም

7. በእንግሊዝኛ ቋንቋ የሚተላለፉ ፕሮግራሞችን (ለምሳሌ እንደ ዜና፣ ፊልም የመሳሰሉትን) በተሌቪዥን የምትከታተዪ/ል ከሆነ ምን ያህል በፕላዝማ ቴሌቪዥን የእንግሊዝኛን ቋንቋ ለመማር እረዳሽ/ህ?

   □በጣም ረድቶኛል □በመጠኑ ረድቶኛል □ለመወሰን ያዳግታል

   □በመጠኑም ቢሆን አልረዳኝም □ ፈጽሞ አልረዳኝም

II. የፕላዝማ ቴሌቪዥን መምህሯ/ሩ፣የክፍል ውስጥ መምህሯ/ሩ እና የተማሪው ተሳትፎን በተመለከተ

መመሪያ፡- በሰንጠረዡ ውስጥ የሚገኙትን ሃሳቦች በጥሞና ካነበብሽ/ክ በኋላ ከሀሳብሽ/ህ ጋር የሚሄደውን በተዘጋጀው ሳጥን ውስጥ የ 'X' ምልክት በማድረግ አመልክች/ት::

መግለጫ፡- 4 - ሁልጊዜ፣ 3 - አልፎ አልፎ፣ 2 - ለመወሰን ያዳግታል፣ 1 - በመጠኑ ፣ 0 - በፍፁም

ተ/ቁ		መለኪያ				
	ለምን ያህል ጊዜ የፕላዝማ መምህሯ/ሩ የሚከተሉትን ያከናውናሉ?	4	3	2	1	0
1	ትምህርቱን ሲያቀርቡ በሚመጥን ፍጥነት ነው					
2	ትምህርቱን ግልጽ በሆነና በሚገባ መልኩ ያስረዳሉ					
3	መልመጃዎች እንዴት እንደሚሰሩ ያሳዩናል					
4	የቋንቋ ክሂሎችን ለማበልፀግ የሚረዱ ስልቶችን(ዘዴዎችን) ይነግሩናል					
5	የክፍል ዉስጥ መምህሯ/ሩ እገዛ እንዲያደርጉልን በቂ ጊዜ ይሰጡናል					
6	መልመጃዎችን ለመስራት በቂ ጊዜ ይሰጡናል					
	ለምን ያህል ጊዜ የክፍል ዉስጥ እንግሊዝኛ መምህሯ/ሩ የሚከተሉትን ከፕላዝማው ስርጭት በፊት፣ በስርጭት ጊዜና ከስርጭት በኋላ ያከናውናሉ?	4	3	2	1	0
1	የየእለቱን የፕላዝማ ትምህርት አላማ ያብራሩልናል					
2	የሚተላለፉ ፕሮግራሞችን በጥሞና እንድከታተል ያበረታቱኛል					
3	የፕላዝማ መምህሯ/ሩ በምታዘው/በሚያሚያዘው መሰረት መልመጃዎችን በቡድን እንዲሁም በጥንድ እንድንሰራ ያደርጉናል					
4	እርዳታ ስሻ አስፈላጊዉን ትብብር ያደርጉልኛል					
5	በፕላዝማ ቴሌቪዥን በማየው መሰረት ልሰራቸው የምችላቸውን መልመጃዎችን ይሰጡኛል					
6	በቴሌቭዥን የተላላፉትን ትምህርቶች ከመጻፋችን ጋር እያጣመሩ ማጠቃለያ ይሰጡናል					
	ለምን ያህል ጊዜ የሚከተሉትን ትከውኛለሽ/ናለህ?	4	3	2	1	0
1	በፕላዝማ የሚሰራጩ ትምህርቶችን ቀድሜ ከመማሪያ መጽሀፌ እቃኛለሁ					
2	በፕላዝማ የሚስራጩትን ሆነ በክፍል ውስጥ መምህሩ የሚሰጡትን ገለፃዎች በአትኩሮት እከታተላለሁ					
3	የፕላዝማ ቴሌቪዥኑ መምህር ሆነ የክፍል ውስጥ መምህሩ በሚያዙት መሰረት መልመጃዎችን ለመስራት እጥራለሁ					
4	በፕላዝማ መምህሯ/ሩ የሚሰጠው ገለፃ ግልፅ ካልሆነልኝ የክፍል ውስጥ መምህሩን ተጨማሪ ማብራሪያ እንዲሰጡኝ እጠይቃለሁ					
	በፕላዝማ የሚሰራጩ የእንሊዝኛ ትምህርቶችን ስትከታዱ/ል የሚከተሉት ባህርያት ለምን ያህል ጊዜ ያጋጥሙሻል/ሃል?	4	3	2	1	0
5	የእንቅልፍ ስሜት ይሰማኛል					
6	ከክፍል ጓደኛዬ ጋር እጫወታለሁ					
7	እስኪብርቶ አንቀጫቅጫለሁ/እኝካለሁ					
8	ጠረጴዛ ወይም ደብተር ላይ እጫጭራለሁ					
9	በፕላዝማ የሚሰራጩ ትምህርቶች ላይ እቀልዳለሁ					

III. ሥለተሻሻለው የፕላዝማ እንግሊዝኛ ትምህርት መልመጃዎች የተማሪው አስተሳሰብ::

መመሪያ:- በሰንጠረዡ ውስጥ የሚገኙትን ሃሳቦች በጥሞና ካነበባችሁ በኋላ ስለተሻሻለው የፕላዝማ እንግሊዝኛ ትምህርት መልመጃዎች ያላችሁን አመለካከት በተዘጋጀው ሳጥን ውስጥ የ'X' *ምልክት በማድረግ* አመልክቱ::

መግለጫ:- 4 - በጣም እስማማለሁ፣ 3 - እስማማለሁ፣ 2 - መወሰን ያዳግታል፣ 1 - አልስማማም፣ 0 - በጣም አልስማማም

ተ/ቁ	የተሻሻለው የፕላዝማ እንግሊዝኛ ትምህርት መልመጃዎች:-	መለኪያ				
		4	3	2	1	0
1	በደንብ የተቀናጁ ናቸው					
2	የእንግሊዝኛን ቋንቋ ለመማር ፍላጎት ያሳድራሉ					
3	ላበለጽጋችው የምሻቸውን የቋንቋ ክሂሎች ይሸፍናሉ					
4	አስፈላጊው ጊዜ ተመድቦላቸው ተደራጅተዋል					
5	ለመስራት ይቀላሉ					
6	አዳዲስ የቋንቋ ክሂሎችን ለመረዳት ምቹ ናቸው					
7	በእለት ተእለት ግንኙነት በተግባር የሚያገለግሉ ናቸው					
8	ካለኝ የእንግሊዝኛ ቋንቋ ብቃት ደረጃ ጋር ይጣጣማሉ					
9	የእንግሊዝኛ ቋንቋን ለመማር ምቹ ናቸው					
10	ስለተሻሻለው የፕላዝማ እንግሊዝኛ ትምህርት መልመጃዎች ሌሎች ተጨማሪ አስተያየቶች ካለሽ/ህ በዝርዝር አስቀምጪአቸዉ/ጣቸዉ _____ _____ _____					

IV. በፕላዝማ ቴሌቪዥን የሚሰራጨው የእንግሊዝኛ ትምህርት ፕሮግራም ውጤታማነት

መመሪያ፡- የሚከሉትን ሃሳቦች በጥሞና ካነበባችሁ በኋላ በፕላዝማ ቴሌቪዥን ስለሚሰራጨው እንግሊዝኛ ትምህርት ፕሮግራም ውጤታማነትን መተመለከተ ያላችሁን አስተሳሰብ በተዘጋጀው ሳጥን ውስጥ የ 'X' ምልክት በማድርግ አመልክቱ፡፡ (**መግለጫ፡- 4 - በጣም እስማማለሁ፣ 3 - እስማማለሁ፣ 2 - መወሰን ያዳግታል፣ 1 - አልስማማም፣ 0 - በጣም አልስማማም**)

1. በፕላዝማ ቴሌቪዥን የሚሰራጨው የእንግሊዝኛ ትምህርት ፕሮግራም፡-	4	3	2	1	0
i. የእንግሊዝኛ ቋንቋ ክሂሎቼን እንዳሻሽል ጠቅሞኛል	☐	☐	☐	☐	☐
ii. ጥሩ ውጤት እዳመጣ አስችሎኛል	☐	☐	☐	☐	☐
iii. የእንግሊዝኛን ትምህርት በተሻለ ምልኩ እንድማር እረድቶኛል	☐	☐	☐	☐	☐
iv. ጥራት ያለው የእንግሊዝኛ ትምህርት እንዳገኝ አግዞኛል	☐	☐	☐	☐	☐
v. ደረጃውን የጠበቀ የእንግሊዝኛ ትምህርት እንዲሰጠኝ አስችሏል	☐	☐	☐	☐	☐

2. በፕላዝማ ቴሌቪዥን ሲሰራጭ የነበረውን የእንግሊዝኛ ትምህርት አተገባበር ውጤታማነት በጥቅሉ እንዴት ትለኪዋለሽ/ ትለካዋለህ?

☐ በጣም ውጤታማ ☐ ውጤታማ ☐ በቂ ☐ ውጤታማ አይደለም ☐ በፍፁም ውጤታማ አይደለም

3. በፕላዝማ ቴሌቪዥን ስለሚሰራጨው እንግሊዝኛ ትምህርት አተገባበር ውጤታማነት ጠቃሚ ወይም እንቅፋት ናችው ብለሽ/ህ የምታስቢያቸዉን/ባቸዉን ሌሎች አስተያየቶች ካሉ በዝርዝር አስቀጪአቸዉ/ምጣቸዉ፡-

Appendix A7: Revised Version of Questionnaire to English Language Teachers (Main Study)

Addis Ababa University
School of Graduate Studies
Faculty of Language Studies
Department of Foreign Languages and Literature

General Directions:

This questionnaire is designed to obtain information regarding the overall effectiveness of the practices of the plasma-channeled English Language Teaching (ELT) and its development. The response for each item in the questionnaire could be of great help to the intended purpose. Therefore, the researcher kindly requests your honesty reply. Your responses are confidential and will be only used for the academic purpose. Please remember that this is not a test, it is a questionnaire. If you do not want to answer all or some of the items, you do have the right to do so. However, your willingness to answer all of the questions would be appreciated. There are no correct or incorrect answers. What matters is your own idea and impression, so answer sincerely. Each of the items has one or more answers. Please put an 'X' in the space provided that corresponds to the responses you select. When you are asked to provide information, please write your responses in the space provided. There is no time limit to complete the questionnaire, but do not spend too much time on any one item. You do not have to write your name.

Would you participate in responding to the questions in this questionnaire? □ Yes □ No

If yes, proceed to the next part. If no, please stop here.

Thank you for your cooperation!

Part I: Teacher's Background Information

1. School name:_____
2. Gender: □ male □ female
3. Teaching experience:_____
4. For how many years you taught English through plasma TV: □1 □2 □3□4□5 or more
5. Qualification: □BA/BED □MA □others(please specify)_____
6. To what extent does your qualification prepare you for teaching English via plasma TV?
□Very prepared□Somewhat prepared □ Undecided □Somewhat unprepared □Very unprepared
7. How many courses did you take in your teaching training that focus on using technology for language teaching? □0 □1-2 □3-4 □5-6 □7 or more
8. Have you ever received any on-job training related to the utilization of plasma TV programs? □Yes □No
9. If you took any on-job training on how to utilize plasma TV programs, please indicate the training and its duration in the table below.

Training Utilization	Duration
□Workshop	
□Seminar	
□Through plasma	
□Others (please specify)	

10. Do you believe that the training helped you to employ the plasma-channeled English lessons effectively? □Yes □No
11. If you did not take any on-job training, what kind of training do you dream of? (please list them)

_____

Part II. Activities Concerned with Plasma Presenter, Classroom Teachers and Students

Directions: Please read the items in the table below and put an 'X' in the box that best describes your own impression.

Key to numbers: ***4 – Always; 3 – Sometimes; 2 – Undecided; 1 – Rarely; 0 – Never***

S/ No		*Response Rates*				
		4	3	2	1	0
	How often does the plasma TV presenter perform the following activities?					
1	S/he presents the lessons at a normal speed.					
2	S/he explains lessons in clear and understandable manner.					
3	S/he demonstrates for students how to do the activities/exercises.					
4	S/he tells students the ways (strategies) to develop language skills.					
5	S/he allows me to assist students.					
6	S/he gives students sufficient time to perform activities/ exercises.					
	How often do you perform the following activities before, during, and after the televised instruction?	4	3	2	1	0
1	I explain the objectives of the daily plasma lessons.					
2	I encourage students to watch the programs carefully.					
3	I arrange the class to do in groups and/or pairs as per the plasma presenter's instructions.					
4	I assist my students when (ever) they are in need of help.					
5	I generate tasks which students can do as a result of watching the program.					
6	I recap the televised lessons by integrating them with the textbook.					
	How often do your students perform the following activities?	4	3	2	1	0
1	They go through the lessons in their text book that they are going to learn via the plasma.					
2	They pay attention to the presentations on the plasma TV and/or my explanations.					
3	They make effort to do the tasks as instructed by the plasma teacher and/or me.					
4	They ask me for clarification when they face difficulties to do the tasks or if the plasma presenter's explanations are not clear.					
	How often do your students do or feel the following behaviors while attending the plasma-based English lessons?	4	3	2	1	0
5	They feel sleep					
6	They play with their partner					
7	They click or chew their pen					
8	They doodle /draw on their table or exercise book					
9	They joke at the plasma lessons					

Part III. English Language Teacher's Perceptions on the Nature of Terminated and Improved Plasma-Channeled English Language Activities

Directions: *Please put an 'X' in the box that describes your viewpoints about the* ***terminated*** *plasma- based English language lessons.*

(***Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree***)

S/ No	The **terminated** plasma- based English language activities were:	*Response Rates*				
		4	3	2	1	0
1	well organized .					
2	interesting to learn English.					
3	covered skills that students need to practice.					
4	organized in a reasonable amount of time.					
5	easy to perform.					
6	conducive to internalize newly introduced language.					
7	authentic - i.e. like real-life English.					
8	proper to the right level for students' current English ability.					
9	suitable for your English language teaching.					
10	Please add any other comments you have concerning the terminated plasma- based English language activities. _____ _____ _____					

Directions: Please put an 'X' in the box that best describes your *viewpoints about* the **improved (overhauled)** plasma-based English language lessons. (***Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree***)

S/ No	The **improved** plasma- based English language activities are:	*Response Rates*				
		4	3	2	1	0
1	well organized.					
2	interesting to learn English.					
3	covered skills that students need to practise .					
4	organized in a reasonable amount of time.					
5	easy to perform.					
6	conducive to internalize newly introduced language.					
7	authentic - i.e. like real-life English.					
8	proper to the right level for students' current English ability.					
9	suitable for my English language teaching.					
10	Please add any other comments you have concerning the improved (overhauled) plasma-based English language activities. _____ _____ _____					

Part IV. English Language Teacher's Technological Pedagogical Content Knowledge of the Plasma-based Instruction

Directions: *Please read the statement in the table below and place an 'X' in the box that you feel is most correct about you while using the televised English language instruction.*

Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree

S/ No	Details	*Response Rates*				
		4	3	2	1	0
1	I know how to solve my own technical problems of the plasma-based instruction.					
2	I have the technical skills I need to use the plasma-based instruction.					
3	I keep up with important new technologies.					
4	I have sufficient knowledge about the subject matter/English/.					
5	I have various ways and strategies of developing my understanding of the language.					
6	I know how to assess students' performance in a classroom.					
7	I can adapt my teaching based upon what students currently understand or do not understand.					
8	I can adapt my teaching style to different learners.					
9	I can assess students' learning in multiple ways.					
10	I can use a wide range of teaching strategies in a classroom setting.					
11	I know how to organize and maintain classroom management.					
12	I can select effective teaching approaches to guide student thinking and learning in English.					
13	I know about the plasma-based instruction that I can use for understanding and performing English lessons.					
14	I know how the plasma-based instruction is used to teach English language					
15	My teacher education program has caused me to think more deeply about how the plasma-based instruction could influence the teaching approaches I use in my classroom.					
16	I am thinking critically about how to use the plasma-based instruction in my classroom.					
17	I can use the plasma-based instruction to different teaching activities.					
18	I can teach lessons that appropriately combine English language contents, the plasma-based instruction and teaching approaches.					
19	I can use the plasma-based instruction in my classroom that enhances what I teach, how I teach, and what students learn.					
20	I can use strategies that combine content, the plasma-based instruction, and language teaching approaches.					

Part V: Results of the Plasma-channeled English Language Instruction

Directions: *Please read the items, and put an 'X' in the box that is most correct about the overall effectiveness of the plasma-channeled English language instruction.*

(***Key to numbers: 4 - Strongly Agree; 3 – Agree; 2 – Undecided; 1 – Disagree; 0 - Strongly Disagree***)

1. The plasma-channeled English language instruction:	**4**	**3**	**2**	**1**	**0**
i. is helpful to improve students' English language skills.	☐	☐	☐	☐	☐
ii. enables students to achieve good results/marks.	☐	☐	☐	☐	☐
iii. assists me to teach English more effectively.	☐	☐	☐	☐	☐
iv. offers quality English language lessons.	☐	☐	☐	☐	☐
v. provides standardized English language education.	☐	☐	☐	☐	☐

2. How do you rate the overall effectiveness of the practices of the plasma-mode of English language teaching?

☐Very Effective ☐ Effective ☐Fair ☐Ineffective ☐Very Ineffective

3. If you feel that you can mention some comments on the effectiveness of the practices of the plasma-based English language education, please list them down.

Appendix A8: Revised Version of the Observation Checklist (Main Study)

Addis Ababa University
School of Graduate Studies
Faculty of Language Studies
Department of Foreign Languages and Literature

General Directions

This checklist is designed to obtain information regarding the effectiveness of the plasma-channeled ELT and its development through direct observation of the researcher and co-observers. It is used to examine the routines of the school settings and thereby observe the front line practitioners' activities in the school.

School Observed: _____ **Date:** _____

Class Observed: Grade____ **Time** _____ **Topic of lesson** _____

Class size: _____ **Number of students in class:** _____

Part I. Physical Settings

Instruction: Please read the items, and put an 'X' in the box that is correct about the physical settings of the school observed.

S/ No	Items	Yes	No	Remarks
1	Seats are suitable to practice the plasma lessons.			
2	The plasma TV is located in a position convenient for every student.			
3	All students are able to view the plasma screen with reasonable viewing distance.			
4	The classrooms have shiny nature which is reflected onto the plasma screen.			
5	The scene/ background of the classrooms are suitable for the televised instruction.			
6	Please add if you have any other comments on physical settings of the school. _____ _____ _____			

Part II. Activities Concerned with Plasma Presenter, Classroom Teachers and Students

Instruction: Put an 'X' in the representative box for your choice number that stands for the frequency of an activity to be observed in classroom.

Key to numbers: *4 - Always; 3 –Sometimes; 2 - Undecided; 1 –Rarely; 0 -Never*

S/ No		*4*	*3*	*2*	*1*	*0*
A	**Activities concerned with the plasma presenter's performance**					
1	S/he presents the lessons at a normal speed.					
2	S/he explains lessons in clear and understandable manner.					
3	S/he demonstrates the class how to do the activities/exercises.					
4	S/he tells students the ways (strategies) to develop language skills.					
5	S/he allows the classroom teacher to assist students.					
6	S/he gives students sufficient time to perform activities/ exercises.					
B	**Activities concerned with the classroom teacher's performance(Teacher's application of TPACK)**	*4*	*3*	*2*	*1*	*0*
1	S/he uses the technical skills to use the plasma-based instruction.					
2	S/he imparts the subject matter clearly.					
3	S/he employs effective teaching styles.					
4	S/he prepares students for the language items they are supposed to learn.					
5	S/he uses effective teaching approaches to guide students thinking and learning in English.					
6	S/he demonstrates her/his knowledge of using the plasma-based instruction.					
7	S/he employs the plasma-based instruction effectively to different teaching activities.					
8	S/he can teach lessons that appropriately combine English language contents, the plasma-based instruction and teaching approaches.					
9	S/he can use the plasma-based instruction in his/her classroom that enhances what s/he teaches, how s/he teaches, and what students learn.					
10	S/he can use strategies that combine content, the plasma-based instruction, and language teaching approaches.					
C	**Activities concerned with students' participation**	*4*	*3*	*2*	*1*	*0*
1	They make efforts to do tasks as instructed.					
2	They perform tasks in collaboration with their classmates.					
3	They are seen doing or feeling the following behaviors while watching the plasma-based English lessons:					
	i. feeling sleep					
	ii. playing with their partner					
	iii. clicking or chewing their pen					
	iv. doodling /drawing on their table or exercise book					
4	Please add any other things observed _____ _____ _____ _____					

Part III. Assessments on Demonstrative Activities on the Plasma TV

Instructions: Please read the items, and put an 'X' in the box that is most correct about demonstrative activities displayed on the plasma TV to be observed in classroom using these scales: **2-Yes, completely; 1 - Yes, somewhat; 0 - No**

S/ No	Activities displayed on the plasma TV are:	Scales		
		2	1	0
1	clear to understand by the students.			
2	easy to perform.			
3	covered skills that students need to practice.			
4	conducive to internalize newly introduced language.			
5	suitable for learning/teaching English language.			
6	Please add any other comments you have concerning televised activities _____ _____ _____			

Part IV. Facilities

Instruction: Please read the items, and put an 'X' in the box that is most correct about facilities students and teachers provided with when they are using the plasma TV instruction.

S/ No	Facilities/Materials	Students			Teachers		
		Yes	No	Unknown	Yes	No	Unknown
1	Textbook						
2	Manual						
3	Soft and/or hard copy of the program						
4	English language resource materials						
5	Self Access Centers(SACs) to review broadcasted lessons						
6	Please add any other comments you have concerning facilities regarding the plasma-based English language lessons _____ _____ _____ _____						

Other things observed during plasma transmission:

_____

_____

_____

_____

_____

_____

Appendix A9: Interview Guide to Students

Addis Ababa University
School of Graduate Studies
Faculty of Language Studies
Department of Foreign Languages and Literature

1. Do you have any information about why the plasma program is preferred to the conventional (traditional) instruction?
2. Have you always been taught English with the plasma TV whenever such programs exist? If not, can you recall the reasons?
3. Could you comment on the plasma presenter's ways of delivery and the ability and of your classroom teacher using the televised instruction?
4. Do you think that the classroom settings are suitable for the plasma-based ELT?
5. Do you believe that your English language teachers are interested in and willing to working with the plasma-mode of instruction? Why?
6. In your opinion, does learning by the televised instruction contribute to improve your English language skills? If yes, how? If no, why?
7. To what extent are televised activities appropriate for the English language instruction? Are they interesting enough and consistent with the teaching materials?
8. In your opinion, what were the major strong and weak points of the terminated televised English language instruction?
9. How do you find the improved (new) plasma-based English language instruction? To what extent is it different from the terminated one?
10. Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?

Appendix A10: Amharic Version of Interview Guide to Students

Addis Ababa University
School of Graduate Studies
Faculty of Language Studies
Department of Foreign Languages and Literature

1. በፕላዝማ ቴሌቭዥን የሚሰራጨው ትምህርት ገጽለገጽ ከሚሰጠው ትምህርት ለምን እንደተመረጠ መረጃው አለህ/ሽ?
2. የፕላዝማ ቴሌቭዥን ትምህርት ስርጭት ካለ ሁልጊዜ የእንግሊዝኛን ትምህርት በፕላዝማ ትማራላችሁ? የማትማሩ ከሆነ ምክንያቶችን ልትነግረኝ/ሪኝ ትችላለህ/ያለሽ?
3. የፕላዝማ መምህሩን የትምህርት አቀራረብ እንዲሁም የክፍል ውስጥ መምህሩ ቴሌቭዥኑን ተጠቅሞ የማስተማር ብቃታቸውን እንዴት ታየዋለህ/ታዪዋለሽ?
4. የመማሪያ ክፍልህ/ሽ በፕላዝማ ቴሌቭዥን የሚሰራጨውን እንግሊዝኛ ትምህርት ለመማር ምቹ ይመስልሃል/ሻል?
5. የክፍል ውስጥ እንግሊዝኛ መምህርህ/ሽ በፕላስማ ቴሌቭዥን ለማስተማር ደስተኛ ይመስሉሃል/ሻል? ለምን?
6. በፕላዝማ ቴሌቭዥን የሚሰራጨው የእንግሊዝኛ ትምህርት የእንግሊዝኛ ቋንቋህን/ሽን ለማሻሻል እረድቶኛል ብለህ/ብለሽ ታስባለህ/ቢያለሽ?
7. በፕላዝማ ቴሌቭዥን የሚሰራጩት መልመጃዎች እንግሊዝኛን ቋንቋ ለመማር ምን ያህል ተስማሚ ናቸው? ከመማሪያ መጽሐፍት ጋርስ የተጣጣመ ናቸው?
8. እንደአንተ/ቺ አስተሳሰብ፣ የተቋረጠው የእንግሊዝኛ ቋንቋ ትምህርት ዋና ዋና ጠንካራ እና ደካማ ጎኖች የምትላቸው/ያቸው ምንድን ናቸው?
9. የተሻሻለውን የእንግሊዝኛ ፕላዝማ ትምህርት እንዴት አገኘኸው/ሸው? ከተቋረጠው የፕላዝማ ትምህርት በምን ይለያል?
10. በፕላዝማ ቴሌቭዥን የሚሰራጨውን የእንግሊዝኛ ትምህርት ውጤታማነት እንዲሁም መሻሻሎች በተመለከተ ምን ትላለህ/ያለሽ?

Appendix A11: Interview Guide to English Language Teachers

Addis Ababa University
School of Graduate Studies
Faculty of Language Studies
Department of Foreign Languages and Literature

1. How do you see the plasma television as a pedagogical tool in a language classroom?
2. Do you have any information about how the plasma-channeled English language program is planned and why it is preferred to the conventional instruction?
3. From your experience of English language lessons on plasma TV, what do you say about the plasma presenter's ways of delivery, your roles, and students' participation?
4. Could you please tell me any supportive services you were provided with when you taught English via plasma TV?
5. Some people say that the televised instruction is relevant to improving the students' English language abilities. How do you see this?
6. In your opinion, what were the major problems concerning the terminated televised English language instruction?
7. How do you find the improved (new) plasma-based English language instruction? To what extent is it different from the terminated one?
8. Do you think that you have confidence and competence to use the plasma-channeled instruction in your English language lessons?
9. Are you interested in and willing to working with the plasma-mode of instruction? Why?
10. Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?

Appendix A12: Interview Guide to School Directors

Addis Ababa University
School of Graduate Studies
Faculty of Language Studies
Department of Foreign Languages and Literature

1. Could you please explain the basic objectives of the plasma TV instruction in Ethiopia?
2. Do you have any information about why the plasma program is preferred to the conventional (traditional) instruction?
3. Can you tell me how and when you communicate the plasma TV relevance to your staff?
4. Can you comment, in detail, about the availability of supportive materials for the televised English language instruction in your school?
5. If you were asked to give a summary of the supervisory and inspection services with reference to the televised ELT in your school, what would be the main points you mention?
6. In your opinion, what are the most important beliefs held by your school community concerning the plasma-based instruction?
7. Do you think that English language teachers have competence to working with the plasma-mode of instruction? Why?
8. In your opinion, what were the major problems concerning the terminated televised English language instruction?
9. How do you find the improved (new) plasma-based English language instruction? To what extent is it different from the terminated one?
10. Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?

Appendix A13: Interview Guide to Experts

Addis Ababa University
School of Graduate Studies
Faculty of Language Studies
Department of Foreign Languages and Literature

I. Policy Directions

1. Could you please explain the basic objectives and rational of the televised instruction in Ethiopia?
2. Would you please tell me how the plasma program was planned and why it is preferred to the conventional (traditional) instruction?
3. May I ask you if any pilot testing and/or researches were conducted before the implementation of the plasma-mode of instruction?

II. Characteristics of Plasma-channeled ELT

4. Could you elaborate the linkage process between the broadcasting center and the reception ends?
5. What were the arrangements for using plasma TV program in teaching English language?

III. Support

6. Can you please tell me about the plasma-based instruction supervision and inspections in schools?
7. Do you think that practitioners are provided with the necessary supports to utilize the program effectively?

IV. Plasma-mode ELT Results

8. What do you think are the contributions of the telecasted instruction to students' English language learning?
9. To what extent do you think that it is relevant to improving students' English language abilities?
10. Do you think that the plasma-channeled instruction has an effect on teachers' professional competence? If yes, how? If no, why?
11. Do you believe that English language teachers have competence to working with the plasma-mode of instruction? Why?

V. Plasma-channeled English Language Improvement

12. In your opinion, what are the major problems concerning the televised English language instruction?
13. The transmission of the plasma-based English language instruction was terminated in 2009/2010 academic year, and new plasma lessons have been transmitted in this year. Could you tell me the reasons?
14. Do you think that there are differences in the terminated and improved plasma-based English language lessons? If so, how different are they?
15. Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?

Appendix B

Reliability Results of Data Collection Instruments

Appendix B1: Reliability Results of Students' and Teachers' Questionnaire

Item No.	Descriptions	Cronbach's Alpha if Item Deleted	
		Students' questionnaire	Teachers' questionnaire
	Part II: Activities Concerned with Plasma Presenter, Classroom Teachers and Students		
	Activities of plasma presenter		
1	Presenting the lessons in a normal speed	.675	.699
2	Explaining lessons in clear and understandable manner	.710	.724
3	Demonstrating the students how to do the activities/exercises	.726	.666
4	Telling students the ways(strategies) to develop language skills	.712	.619
5	Allowing the classroom teacher to assist students	.687	.764
6	Giving students sufficient time to perform activities/ exercises	.676	.597
	Overall Cronbach's Alpha	***.736***	***.726***
	Roles of the classroom teacher		
1	Explaining the objectives of the daily plasma lessons	.673	.438
2	Encouraging students to watch the programs carefully	.711	.551
3	Arranging the class to do in groups and/or pairs as per the plasma presenter's instructions	.714	.526
4	Assisting students when(ever) they are in need of help	.681	.538
5	Generating tasks which students can do as a result of watching the program	.717	.366
6	Muting the transmissions to give students further explanation	.720	.524
7	Switching off the televised lessons and teaching in conventional(traditional) instruction	.733	.617
8	Preparing supplementary activities other than the plasma lessons	.727	.580
9	Employing effective teaching styles and technical skills	.696	.356
10	Recapping the televised lessons by integrating them with the textbook	.691	.565
	Overall Cronbach's Alpha	***.729***	***.544***
	Participations of the students		
1	Going through the lessons that they are going to learn via the plasma	.574	.852
2	Paying attention to the presentations on the plasma TV and/or my explanations	.521	.507
3	Making effort to do the tasks as instructed by the plasma teacher and/or classroom teacher	.563	.597
4	Asking the classroom teacher for clarification when students face difficulties to do the tasks or if the plasma presenter's explanations are not clear	.513	.546
5	Performing tasks in collaboration with classmates	.591	.424
	Overall Cronbach's Alpha	***.608***	***.672***
	Attentions of students towards televised lessons		
6	Feeling sleep	.678	.831
7	Playing with their partner	.656	.852
8	Clicking or chewing their pen	.606	.838
9	Doodling /Drawing on their table or exercise book	.634	.814
10	Joking at the plasma lessons	.690	.832
	Overall Cronbach's Alpha	***.703***	***.863***

Reliability Results Students' and Teachers' Questionnaire (Continued)

S/ No	Descriptions	No of items	Overall Cronbach's Alpha	
			Students' questionnaire	Teachers' questionnaire
	Part III: Respondents' perceptions on the nature of terminated and improved plasma-channeled English language activities			
1	Respondents' reactions on the nature of the terminated plasma-based English language activities	9	.837	.825
2	Respondents' expectations towards the nature of the improved plasma-based English language activities	9	.893	.763
	Part IV: Facilities			
3	Facilities students provided with when they were taught English language with plasma TV	9	.336	.392
	Part V: Respondents' awareness about the plasma-channeled English language			
4	Respondents' awareness about the terminated televised English language instruction	5	.865	.884
5	Respondents' awareness about the improved televised English language instruction	5	.896	.873
	Part VI: Effectiveness of the Plasma-channeled English Language Instruction			
6	Overall effectiveness of the plasma-channeled English language instruction	6	.897	.814

Appendix B2: Inter-rater Reliability Results of Classroom Observations

S/ No	Details	Measure of Agreement, Kappa	
		No of observations (valid cases)	Value
	Part I: Physical settings		
1	Each section is located in relation to other classrooms in school	10	1.00
2	Exterior and/or interior noises are common	10	.783
3	Seats are suitable for group and/or pair works	10	.615
4	The plasma TV is located in a position convenient for every student	10	1.00
5	All students are able to view the plasma screen with reasonable viewing distance	10	.545
6	There is enough space between each row to facilitate the televised lessons	10	.444
7	The classroom teacher is able to monitor both front and remote bench students	10	.583
8	The classrooms have shiny nature which is reflected onto the plasma screen	10	.615
9	Black/whiteboard is located at teacher's station	10	1.00
10	The scene/ background of the classrooms are suitable for the televised instruction	10	.286
	Part II: The general practices of the plasma-based English lessons		
A	**Activities concerned with the plasma presenter's performance**		
1	S/he presents the lessons in a normal speed	10	.783
2	S/he explains lessons in clear and understandable manner	10	.375
3	S/he demonstrates the class how to do the activities/exercises	10	.615
4	S/he tells students the ways(strategies) to develop language skills	10	.286
5	S/he allows the classroom teacher to assist students	10	.615
6	S/he gives students sufficient time to perform activities/ exercises	10	1.00
B	**Activities concerned with the classroom teacher's performance**		
1	S/he explains the focuses/objectives of the daily plasma lessons	10	.474
2	S/he prepares students for the language items they are supposed to learn	10	.688
3	S/he encourages students to watch the program carefully	10	.375
	S/he assists students when(ever) they are in need of help	10	.444
5	S/he generates tasks which students can do as a result of watching the program	10	.545
6	S/he mutes the transmissions to give students further explanation	10	.783
7	S/he switches off the televised lessons and teaches in conventional instruction	10	1.00
8	S/he gives useful feedback on how students are going throughout the program	10	.615
9	S/he employs effective teaching styles and technical skills	10	1.00
10	S/he recaps the televised lessons by integrating them with the textbook	10	.750

Appendix C

Results of the Pilot Study

Appendix C1: Responses of Students' and Teachers' to the Questionnaires

Details	Item No	Details	Students' responses		Teachers' responses	
			N (Valid)	Mean $(\overline{X})$	N (Valid)	Mean $(\overline{X})$
Plasma Teacher's Activities	1	S/he presents the lessons at a normal speed	99	1.70	30	2.73
	2	S/he explains lessons in clear and understandable manner	99	2.60	30	3.13
	3	S/he demonstrates for students how to do the activities/exercises	97	2.70	30	3.40
	4	S/he tells students the ways(strategies) to develop language skills	94	1.74	28	3.07
	5	S/he allows the classroom teacher to assist the students	98	1.78	30	3.57
	6	S/he gives students sufficient time to perform activities/ exercises	99	1.68	23	1.65
		Grand Mean		2.00		2.93
Classroom Teacher's Activities	1	S/he explains the objectives of the daily plasma lessons	99	1.71	25	3.08
	2	S/he encourages students to watch the programs carefully	97	3.06	30	3.97
	3	S/he arranges the class to do in groups and/or pairs as per the plasma presenter's instructions	99	2.83	28	3.32
	4	S/he assists students when(ever) they are in need of help	97	2.32	30	3.73
	5	S/he generates tasks which students can do as a result of watching the program	98	2.41	30	2.93
	6	S/he mutes the transmissions to give students further explanation	99	1.29	29	2.00
	7	S/he switches off the televised lessons and teaches in conventional (traditional) instruction	98	1.21	29	1.10
	8	S/he prepares supplementary activities other than the plasma lessons	98	2.20	30	2.73
	9	S/he employs effective teaching styles and technical skills	98	2.18	28	2.93
	10	S/he recaps the televised lessons by integrating them with the textbook	96	2.30	28	3.75
		Grand Mean		**2.15**		**2.95**

Responses of Students' and Teachers' Responses to the Questionnaires (Continued)

Details	Item No	Details	Students' responses		Teachers' responses	
			N (Valid)	Mean ($\bar{X}$)	N (Valid)	Mean ($\bar{X}$)
Students' Participation	1	Students go through the lessons before hand in their text book that they are going to learn via the plasma	99	2.04	30	2.67
	2	Students pay attention to the presentations on the plasma TV and/or the classroom teacher's explanations	100	3.28	30	3.13
	3	Students make effort to do the tasks as instructed by the plasma teacher and/or the classroom teacher	99	3.49	30	3.10
	4	Students ask the classroom teacher for clarification when they face difficulties to do the tasks or if the plasma presenter's explanations are not clear	100	2.72	30	3.00
	5	Students perform tasks in collaboration with their classmates	86	2.97	20	2.45
		Grand Mean		**2.90**		**2.87**
The Nature of Televised Activities	1	well organized	99	2.30	29	3.00
	2	interesting to learn English	99	2.57	30	3.33
	3	covered skills that students need to practise	98	2.20	30	3.03
	4	organized in a reasonable amount of time	97	1.88	30	1.93
	5	easy to perform	98	1.79	30	2.47
	6	conducive to internalize newly introduced language	99	2.35	30	2.73
	7	authentic - i.e. like real-life English	99	2.06	30	2.77
	8	proper to the right level for students' current English ability	98	1.87	30	2.17
	9	suitable for students' English language learning	92	2.26	28	3.00
		Grand Mean		**2.14**		**2.71**
Results of the televised ELT		The plasma-channeled English language instruction:				
	1	was relevant to improve students' English language skills.	95	2.55	28	3.57
	2	enabled students to achieve good results/marks.	95	1.88	28	2.18
	3	assisted students to learn English more effectively.	95	2.20	28	3.39
	4	helped students to have quality English language lessons.	95	2.01	27	3.19
	5	provided students standardized English language education.	95	2.19	27	3.11
		Grand Mean		**2.17**		**3.09**

Appendix C2: Results of the Classroom Observations

Part I. Physical Settings

Item No	Results					
	Yes		No		Total	
	F	%	F	%	F	%
1	20	100	-	-	20	100
2	14	70	6	30	20	100
3	-	-	20	100	20	100
4	2	10	18	90	20	100
5	4	20	16	80	20	100
6	4	20	16	80	20	100
7	12	60	8	40	20	100
8	18	90	2	10	20	100
9	20	100	-	-	20	100
10	8	40	12	60	20	100

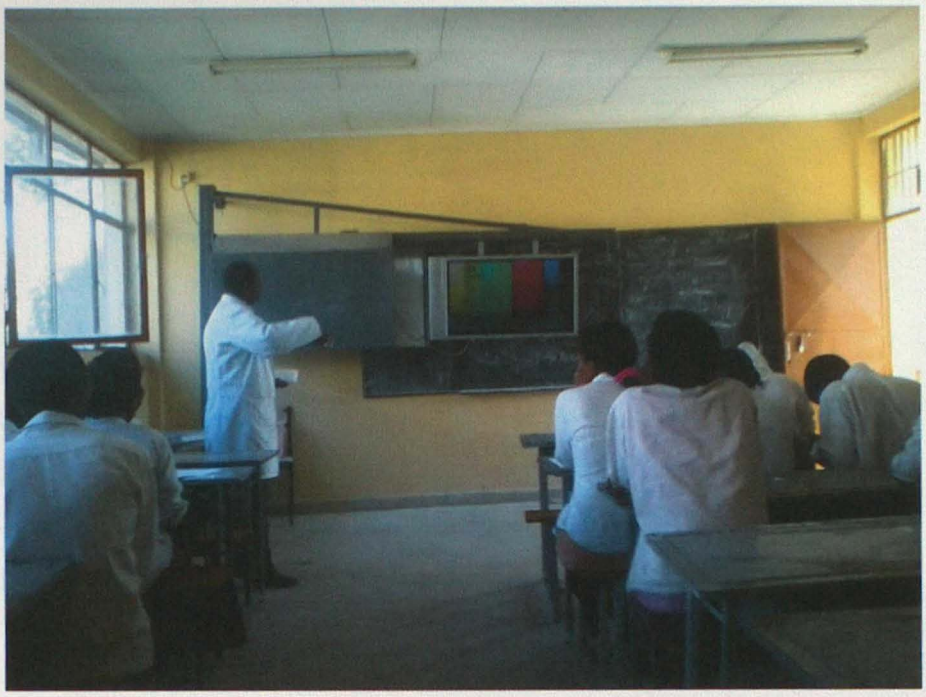
Part II. Activities Concerned with Plasma Presenter, Classroom Teachers and Students

Details	Item No.	Results in Frequency					
		Always	Sometimes	Undecided	Rarely	Never	Total
A.TV teacher's activities	1	16	4	—	—	—	20
	2	16	4	—	—	—	20
	3	16	4	—	—	—	20
	4	6	6	6	2	—	20
	5	20	—	—	—	—	20
	6	—	6	4	8	2	20
Total		74	24	10	10	2	
B. Classroom Teacher's activities	1	—	4	2	4	10	20
	2	4	4	—	12	—	20
	3	2	6	2	10	—	20
	4	4	14	2	—	—	20
	5	—	—	8	6	6	20
	6	2	14	2	2	—	20
	7	—	2	12	—	4	18
	8	—	—	10	8	2	20
	9	8	10	—	—	—	18
Total		20	54	38	42	22	

Details	Item No.	Results in Frequency					
		Always	Sometimes	Undecided	Rarely	Never	Total
C. Students' participation	1	8	6	—	6	—	20
	2	6	10	—	4	—	20
	3	—	2	2	8	8	20
	4	4	2	2	8	2	18
	Total	18	20	4	26	10	

Part III: Demonstration Activates				
Item No	Yes, completely	Yes, somewhat	No	Total
1	18	—	—	18
2	12	6		18
3	18	—	—	18
4	6	10	—	16
5	—	6	10	16
6	—	6	12	18
7	10	6	2	18
8	18	—	—	18
9	8	10	—	18
Total	90	44	24	

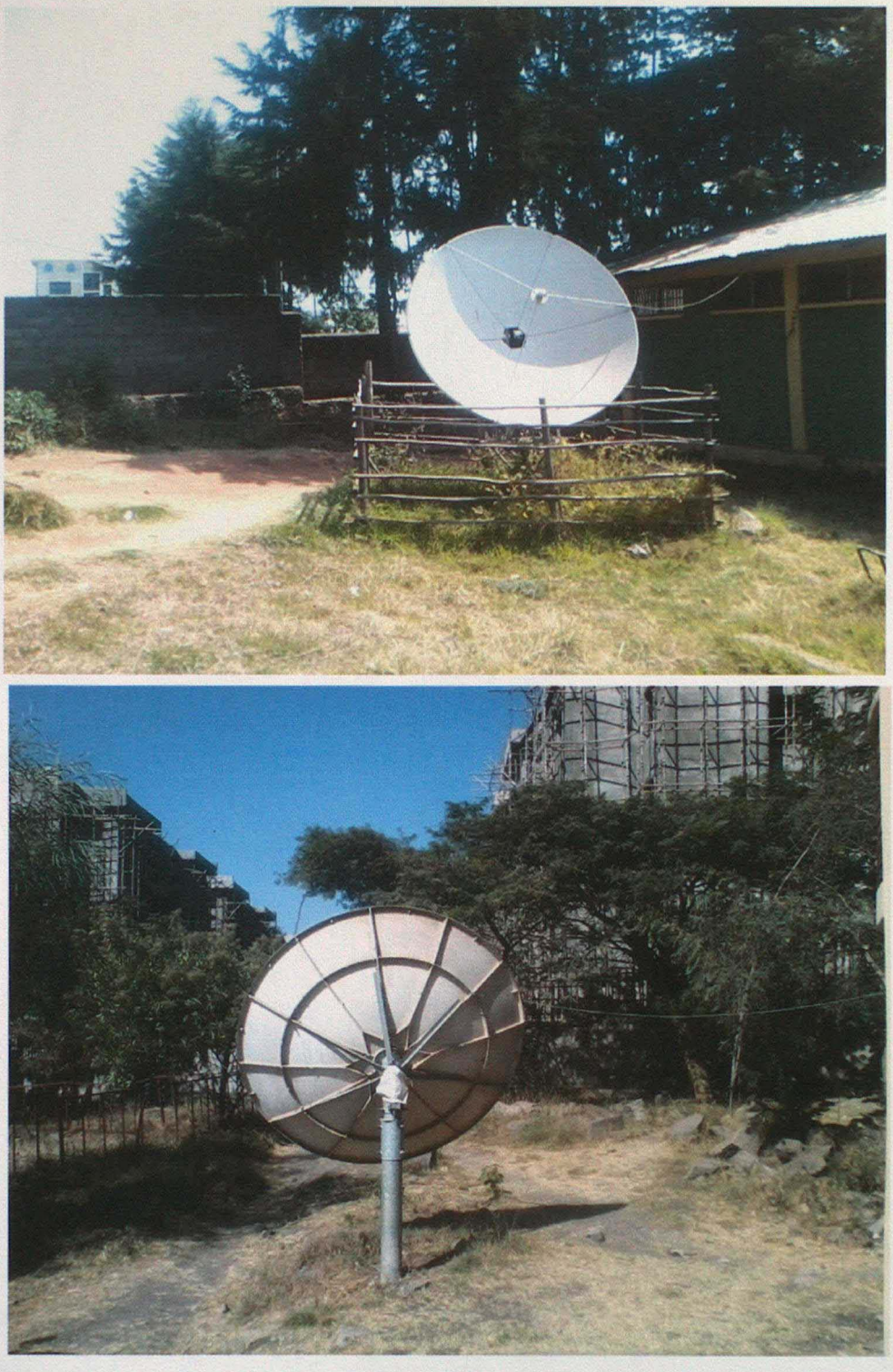
Appendix D
Photos of Plasma-channeled Instruction Scenes



Pic 1: A plasma TV (moveable), a classroom teacher and 'plasma students' (photo taken by the researcher)

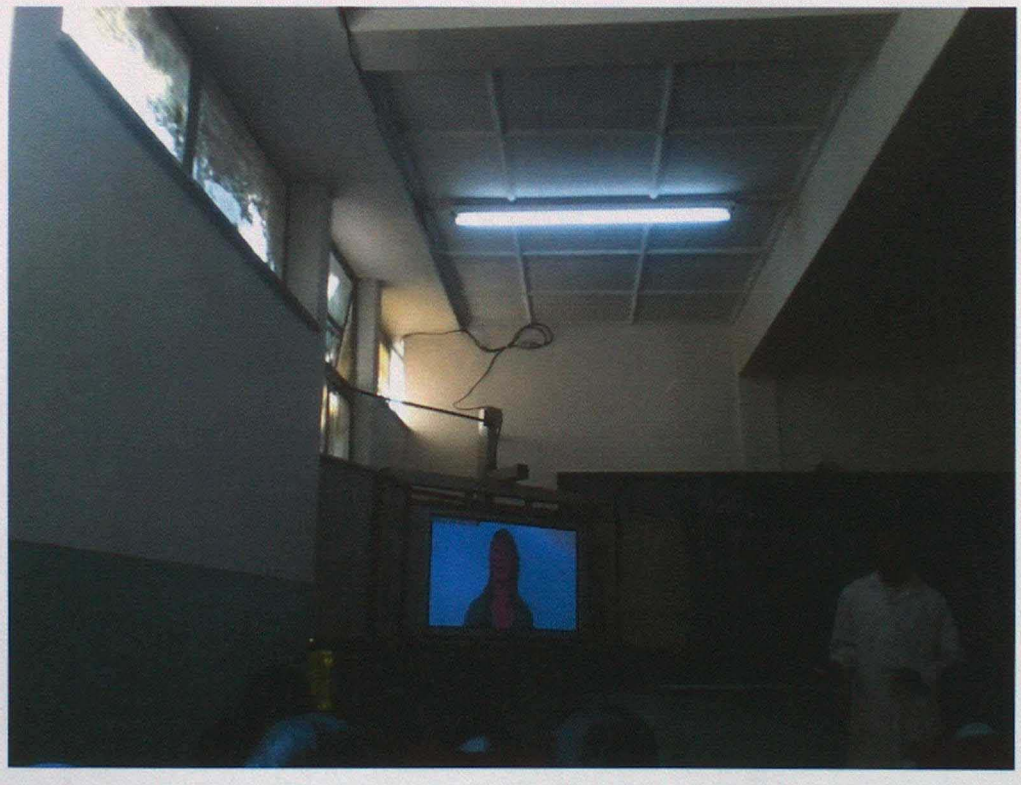
Pic 2: A plasma TV (fixed) and a blackboard (photo taken by the researcher)

Pic 3: A plasma TV enclosed in a metallic box and seats of 'plasma student' (photo taken by the researcher)



Pic 4: Satellite dish receivers of plasma-channeled lessons (photo taken by the researcher)

Pic 5: A classroom teacher searching for plasma-channeled lessons (photo taken by the researcher)

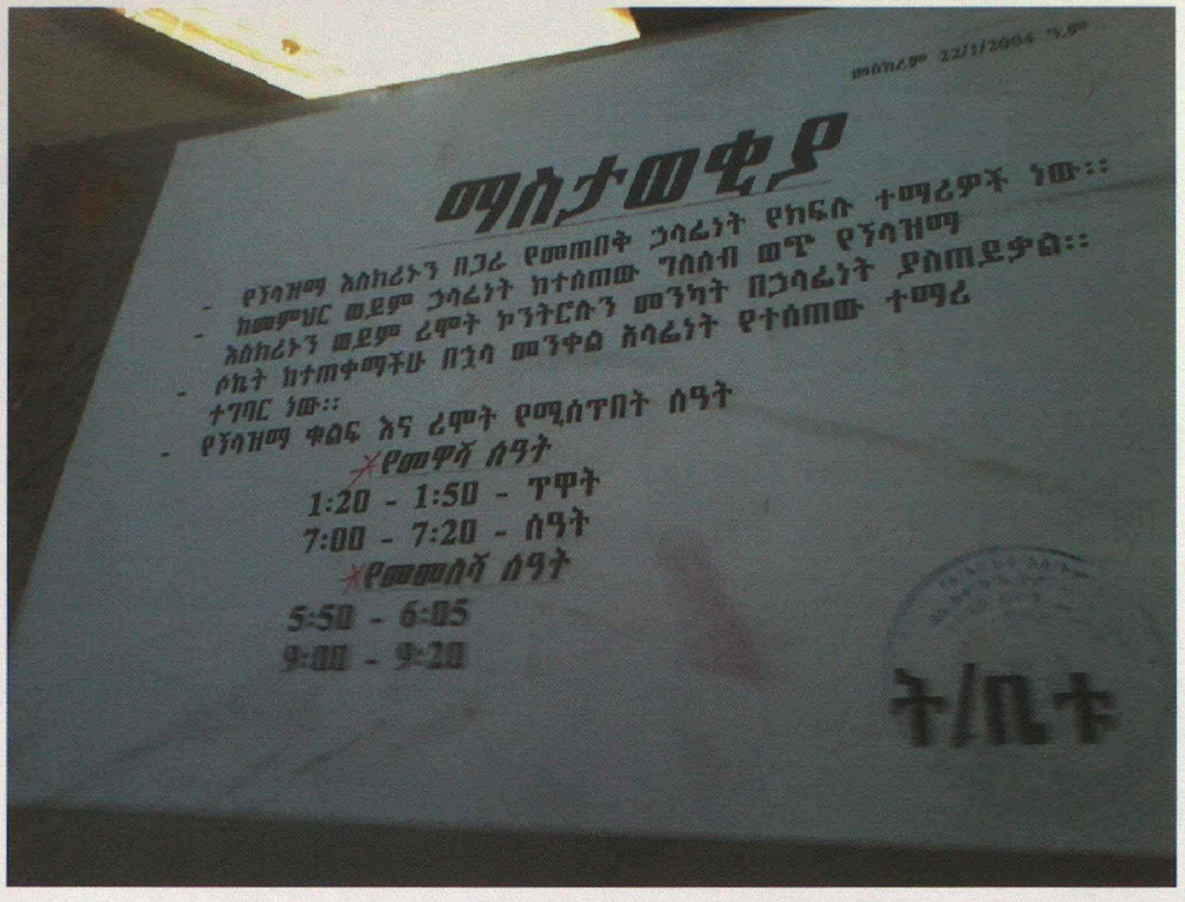


Pic 6: A classroom teacher introducing plasma lessons during transmission (photo taken by the researcher)

Pic 7: Students attending at plasma lessons (photo taken by the researcher)

Pic 8: A classroom teacher writing notes on the board while plasma lessons are underway (photo taken by the researcher)

Pic 9: 'Plasma students' in their school compound in one of the study areas (photo taken by the researcher)



Pic 10: A notice posted on a plasma box (photo taken by the researcher)

* A notice, written on October 9, 2011 in Amharic at one of the sample schools, notifies that it is the responsibility of the students to take care of the 'plasma screen'. An attempt to touch the plasma screen or the remote control except teachers and authorized persons is considered to be in breach of the school's rules and regulations. It is the duty of the responsible student to unplug electric sockets after the use of plasma. The notice also informs the users when the remote control and a key of the plasma TV box are 'borrowed' and returned. (Borrowing time: 07:20-07:50a.m. and 01:00-01:20p.m.; returning time: 11:50-16:05a.m. and 03:00-03:20p.m.).

Appendix E

Sample Plasma Lessons (Video Recorded and Transcribed)

Appendix E1: A Sample Televised Lesson (from the Terminated Plasma-channeled Lessons of Grade 12)

School: Menelik II Preparatory School for Higher Education

Topic of the Lesson: **UNIT 2: IMAGES OF ASIA, Lesson 12(Speaking):** Debate.

Class Observer: Grade 12[1] **Time:** 09:24 a.m. – 10:06 a.m. **Date**: 18/11/10

Key to the abbreviations: PT- Plasma Teacher; ***CT-Classroom Teacher***; CP- Chairperson; D1-Debetor 1; D2-Debetor 2; S- Student; Ss-Students

[*The classroom teacher turned on the plasma TV and wrote the title of the lesson on the blackboard, and introduced the daily lesson. Soon afterwards the transmission started on: The Ethiopian Educational Media Agency presents educational satellite television programs (logo of EMA and music and the music fade out as the plasma teacher appeared on the screen)].*

PT: Hello teacher and hello students. The time for our class debate has finally arrived! We have been preparing for this for some time now. We spent the previous lesson working on how to sum up our own points in a debate. We worked, too, on summing up after the audience's contributions. I asked you to read the passage – Controlling China's Population to prepare for this lesson, and to make notes, in your pairs. Pairs of students were asked to work on defending the motion, and other pairs on opposing it. So, now we are ready to debate. Shall we begin? Please have your written notes handy. Thank you

['**Controlling China's Population Pages 32 and 33'** was displayed on the plasma TV screen while the plasma TV teacher was presenting the following]

PT: First, I want you to read through the text again. Please be quick, and, working with your debating partner, check your notes as you read.

*['**Motion:** China's one child policy is a good idea' was displayed while the presenter was talking]*

PT: Make sure that if you are defending the motion you will be able to deal with the points offered by your opposition. Similarly, if you are opposing the motion check that you are familiar with all the points in favour of it.

Debating is about being able to argue logically and persuasively, so you have to know both sides of the argument to be able to do this. Check that your notes don't repeat points. Check that the seconder's notes emphasise the points made by the proposer. You should be familiar with the text, so I am not going to give you too much time! You can start.

[*Clock counting down 2 minutes, the topic* 'China's one child policy is a good idea' was displayed accompanied by sound track]

CT: Ok ...the topic says is China's policy a good ...

Ss: Laughed...

PT: Time's up! Now, before we go ahead, let's check the debating procedures.

*[**Page 26** displayed]*

PT: Turn to page 26 in your textbook. We looked at the notes on debating in lesson 9. However, you need to be clear on what to do when we hold our debate a little later in this lesson. Take some time to go through them, and to discuss them carefully with each other so that you all know exactly what is required of you.

[*Clock counting down 1:45']*

CT: Today we support debate for the motion *[the classroom teacher waved his hands and called for the debaters]* ***...we continue this procedure right now. Seconders, proposers, the chairperson and the audience ...*** *[somebody knocked at the door, the classroom teacher was walking to the door to open].*

PT: Good. Now, I want to talk to you about today's debating procedure.

['***You need to appoint:***

- *a chairperson*
- *a pair of speakers in favour*
- *a pair of speakers again' was displayed on the plasma TV.*]

PT: You could ask your teacher to appoint a chairperson, or to be the chairperson. Remember that the chairperson must have a watch handy. Then, in pairs, you could volunteer to be the speakers. One pair of speakers for the motion is needed, and one pair of speakers against it.

Your teacher could then choose the speakers from amongst the volunteers. Would you do this now please? Teacher, please supervise this activity. Thank you.

[*Clock counting down 2 minutes + text on the screen]*

CT: Ok! Anybody? Who's volunteer to be the motion? For the motion? Who supports the policy? Come on? *[A student put out his hand]* ***Emm... yes! For the motion? Against the motion?*** *[The student had gone to the front and took a seat]****Come on! Against the motion? Yes no-one?****[somebody knocked at the door. The classroom teacher opened the door and returned]****Ehh...that means you don't like debate... because****...[A student stood up and was going to the front. Then, he sat nearby the first volunteer student for the debate.]* ***Good! Ehh...Anybody against the motion? Against the motion?[****The teacher pointed to one the volunteer students and persuaded him to debate against the motion. Afterward, the student stood up and took the other bench****] How about girls? Why don't you participate?***

PT: Ready? Good. Now we can begin the debate. Speakers, please take your seats in front of the class. The pair in favour of the motion must sit on one side of the chairperson, and the opposing pair of speakers on the other side. Then the chairperson must introduce the motion and the four speakers. You can start. [***'Motion: China's one child policy is a good idea'*** *was displayed behind the presenter while she was talking*].

[*Clock counting down 30 seconds + the following text on the screen:*

- *Speakers to the front of the class.*
- *Chairperson to introduce the speakers and the motion.]*

CP: Thank you! My mane is.... Today's debate is about China's one Child policy. Emmm... Here we have two debaters. One against the motion and the other emm...[*The plasma presenter interrupted him*].

Ss: Laughed...

PT: Good. Will the proposer in favour of the motion please stand up and deliver the opening speech. The audience must listen carefully and attentively. You should take notes as you listen in case you want to contribute to the debate later. Speaker, you have two and a half minutes for your speech. Will the chairperson please time this carefully? Thank you.

[*Clock counting down 2:30 minutes + the following text on the screen:* ***'Motion: China's one child policy is a good idea']***

D1: Thank you the chairperson. Thank you audiences. I support China's one child policy is a good idea [*the debater gazed at the screen*]. China has a plenty of population. That means it has about 4 billion. Peoples are there in that country. So, in that country also....they have enough natural resources to survive their lives. But now they not emm.....they will do their development. These times they are well known. There are about three or four children in their lives. If it continues in this situation, this condition, the population of China will be much and much. So, the natural resource and the population number which unbalance the natural resource. If the natural resource, unbalance the population there will be poverty because of the population. So, there will be the population in the damage of resources. So the policy is a good idea and very nice in our context. In order to control... [*The plasma teacher appeared on the screen and interrupted the debtor. Students laughed out!]*

PT: Time's up! Thank you. Will the proposer against the motion please stand up now and deliver the opening speech against the motion. You, too, have two and a half minutes. Begin now.

[*Clock counting down 2:30 minutes + the following text on the screen: '**Motion: China's one child policy is a good idea**']*

CP: The presenter against the motion you have two and half minutes.

D2: [He gazed at the screen] I support China's one child is a good idea because China's one child policy is good for the development of people. Emm...it has one advantage and on the other hand disadvantage. The advantage when the people use their labor power and the disadvantage when they use the natural resource....spend natural resources. But there is one child they use the natural resource wisely in China. *[He finished his talk though he had 48 seconds].*

CT: The question is: 'Is China's one child policy a good idea?' Well you are in favour of the motion.

PT: Thank you, speaker. It is time now for the seconder in favour of the motion to speak. Will the chairperson please monitor the time carefully? Thank you. You have a minute and a half, so begin now.

[*Clock counting down1:30 minutes + the following text on the screen: '**Motion: China's one child policy is a good idea**']*

CT: You can start as seconder since we have only one debtor each group. We have already aware...

D1: I have just said the idea, but let's say something about the motion in detail. The natural resources and the population number are undesirable. When the population number increase, there is scarcity of resources. So, in China, situation....in china situation, in china situations, the population becoming more and.... [*The plasma presenter appeared on the plasma screen and said time is up.]*

Ss*:* Students laughed loud.

PT: Time's up! Thank you. We will now hear from the seconder against the motion: China's one child policy is a good idea. Begin now and speak for a minute and a half. Thank you.

[*Clock counting down1:30 minutes + the following text on the screen: 'Motion: China's one child policy is a good idea']*

D2: At this time China is more developed when compare the previous. The people are hard working people. China grows in industry, in agriculture. In this time well developed country. So, the people are hardworking people. Therefore, we can do like them and improve our development. Emm..[*He stopped talking and went to his seat though he had 33 seconds more*].

PT: Good. Now it is time for the members of the audience to contribute to the debate. Would the chairperson please control this activity carefully? Speakers from the floor must be concise and they must keep to the point. Also, please allow as many contributors as possible to speak in the few minutes allowed for this part of the debate. Thank you.

[*Clock counting down 3 minutes + the following text on the screen:* ***'Motion: China's one child policy is a good idea']***

CP: If you have any idea, you can say something. If you have any suggestions you are well come. Emmm....

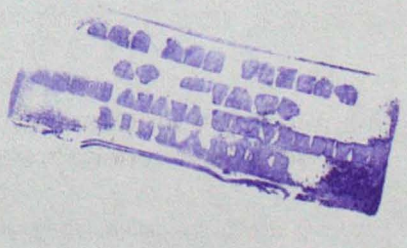
CT: Good! He said if you have suggestions and comments about the motions. Ehhh? Yes anybody? Ok...*[He gave a chance to a student].*

S: China's population is very high and they are very developed. How do you see this?

D2: Could you elaborate it again?

CT: I s there any disadvantage of having many people the countries development? Is the number affect the development of the country?

D2: If the number of people increases, the number of product also increases.



CP: Any more comments? [*The plasma presenter appeared on the screen*].

PT: Time's up! The proposer in favour of the motion now has one minute in which to sum up. Begin now, please.

[*Clock counting down 1 minute + the following text on the screen:* ***'Motion: China's one child policy is a good idea'***]

CT: Ok you chairperson Ehhh...

CP: If you have questions...Emmm. *[Looked at the classroom teacher*]

CT: Not the question! The motion! The voting!...

CP: Ok! Emmm...The vote. As you know [*he pointed to the first debater*] he supported the motion, and he against [pointed the second debater]. You vote now. For the motion? For the motion?[*Students put out their hands and the chair person together of the classroom teacher counted. The plasma presenter appeared while they were counting and said:]*

PT: Thank you. Will the proposer against the motion take a minute to sum up now. Thank you.

[*Clock counting down 1 minute + the following text on the screen:* ***'Motion: China's one child policy is a good idea'***]

CT: Let's continue our voting. Against the mostion?[*very few students put out their hands. The chair person counted their hands and announced the winner. The plasma teacher appeared on the screen and said:****]***

PT: Thank you speakers for and against the motion: **China's one child policy is a good idea.** Members of the audience will now vote. Please remember: you **must** vote for the **most convincing team**. Or, you can choose not to vote at all. Don't vote according to what you believe! Vote for the team with the best arguments. Take some time to discuss these arguments with the students sitting closest to you. Were you convinced by these arguments? You have a few minutes to discuss this, and to vote. Chairperson, please supervise the voting and then count the votes. Thank you.

CT: We have already done this...Ok?

[Students laughed out loud. *Clock counting down 2 minutes, and the sound track went on.]*

PT: Well done to the winning team! I hope you enjoyed the debate. I have to go now; my time's up, too! Today we read through the text - *Controlling China's Population* - again, and we checked our notes. We discussed the

procedure to be followed in a formal debate. We used all the terms we have practised so carefully in preparation for today's debate as we conducted a properly formal one. We will work on reporting the result of the debate in the next lesson, which will be the last one on speaking in Unit 2.

Thank you teacher, for all your help today. Thank you students and particularly those of you who took part in the debate. Well done to you all. Goodbye teacher and goodbye students until our next lesson.

[*All students laughed out loud. Logo of EMA and music went away and the music faded out. The classroom teacher turned off the TV, and placed the plasma screen in the metal box.]*

[The classroom teacher announced the class as they would have a plasma lesson the next day, and invited the researcher to say something on the lesson. The researcher had gone to in front and requested the students to reflect their views on that day's plasma lesson. Having received the students' reflection, the researcher thanked them and left the room together with the classroom teacher and his co-observer.]

Appendix E2: A Sample Televised Lesson (from the Improved Plasma-channeled Lessons of Grade 12)

School: Addis Ketema Preparatory School

Topic of the Lesson: **UNIT 5: THE UNITED NATIONS, Lesson 67(Listening):** A Lecture on the UN.

Class Observer: Grade: 12^{24} **Time:** 11:03 a.m. – 11:45 a.m. **Date**: 04/01/12

Key to the abbreviations: PT- Plasma Teacher; ***CT-Classroom Teacher***

[*The researcher, his co-observer and the classroom teacher entered the classroom to be observed. Having introduced the researcher and the co-observer, the classroom teacher turned on the plasma TV. The plasma screen was fixed and installed at left corner of the class. The classroom teacher wrote the title of the lesson on the blackboard, and reminded the class about the previous lesson. He gaze at the plasma screen and said "**Do you know today's plasma lesson?"** Soon afterwards the transmission started on: logo of CEICT and a text:* Center for the Ethiopian Educational Information & Communication Technology was appeared followed by sound track. And presentation of the text: "Center for the Ethiopian Educational Information & Communication Technology presents educational satellite television programs" follows. Then, video of students and teachers were displayed and the sound track faded out and texts "**English Grade 12; Episode 67 Listening: A Lecture on the UN**" displayed after that the plasma teacher appeared on the TV screen*].*

PT: Hello teacher and hello students. Welcome to the beginning of the unit about the United Nations. We'll be beginning a listening lesson. We will discuss what we know about the UN. List to a lecture about its history and it structure. And then take part in information exchange. We are going to learn a lot in this section. And I hope we will have fun in doing it. Please begin by opening your student books to page 104. As you can see, we already have in complete notes about the UN. Take a few minutes to read through them. If you feel like, you can fill in the blanks. Pease go ahead and do so. But be sure to leave room in case the correct answer is different from yours.

[*Sound track while the presenter disappeared. The animation (the puppet) appeared and said, "Students let's get ready! Begin! " And showed the time. Clock counting down 3 minute + the following text on the screen:* ***'Read though the incomplete notes on p. 104.*** *When the time is over the puppet said: "Time is up! Let's get back to our lesson". Then the presenter appeared and said the subsequent.]*

PT: Have you finished reviewing the lecture notes? Great! Now I'm going to read for you a speech about the United Nations. There's going to be a lot of information, so be sure to fill in the blanks and the notes in your students' books. Are you ready? Here we go!

[*While the presenter was talking images of the UN HQ building, the buildings internal rooms, people participating at a meeting, flags of member states were displayed]*

I'd like to talk to you about the United Nations. I'm sure you are familiar with the blue flag of the UN, and the names of some of agencies which operate here in Ethiopia. Today I'm going to tell you why it's set up, its structure and the nature of its work. Let's start with why it was established. The United Nations was founded in 1945 after the II World War by 51 countries with 4 main aims:

- to maintain international peace and security;
- to develop friendly relations among nations in order to avoid a new future global configurations;
- to promote social progress better living standards and human rights; and
- to be a center for harmonizing the actions of nations.

Today nearly every nations of the world belongs to UN membership totals 192 countries. So, how the United Nations is structured? Well, the United Nations is not a world government. So, it doesn't have a president or a parliament which makes lows.

[P*eople participating at a meeting in the UN HQ building were displayed while the screen teacher was talking. Followed by the presenter appeared on the screen.]*

Nevertheless, due to its unique international character, the power vested in its founded charter, the organization contained actions on a wide range of issues and provided a forum or meeting places for its member states large and small, rich and poor with different political views and social systems. [*Pause*]

The UN system is made up of 30 affiliated organizations including the General Assembly, the Security Council, the Secretariat, the Economic and Social Council and other bodies and committees as well as the specialized agencies, funs and programs, such as UNDP, UNISEF, WHO, etc.

[Video of flooded areas, drought areas, needy people, medical services, farming activities, peacekeeping missions, peacekeepers, refuges, children, old people and so forth were displayed while the screen woman was presenting the following.]

The work of the UN is central to global efforts to solve problems that challenge humanity and it reaches every corner of the globe although best known were peacekeeping and humanitarian assistances. There are many ways the United States and its systems of affect our lives and make the world a better place. Examples of its areas of activities are sustainable development, refuge protection, disaster relief, disarmament, promoting health, expanding food production and human rights. [*Pause*]. The aim of this work is to coordinate efforts for a saver world for this and future generations. [*The presenter appeared on the screen*]. So, to sum up, the UN exists as a free association of member states to make help our world a safe and displaced for everyone to live in. [*Pause*]. Its effectiveness depends on the cooperation of its member states and ultimately that of the individuals within those states.

[*Pause and the presenter appeared on the screen.*]

That was a l-o-n-g speech. Did you manage to fill-in all the planks? Students please select a classmate to work with. Compare you completed works with those of your partner. Help each other to fill-in any blanks that you missed. If you find different responses, please ask teacher for help. You can start now.

[*Sound track while the presenter disappeared. The animation (the puppet) appeared and said, "Students let's get ready! Begin! " And showed the time. Clock counting down 3 minute + the following text on the screen:* ***Working with a partner, complete and correct your notes.*** *When the time is over the puppet said: "Time is up! Let's get back to our lesson". Then the presenter appeared and said the subsequent.]*

CT: Work with your partner and compare your notes, please. ...You see, the time is running. Try to finalize your discussion.

PT: Welcome back students. I hope your notes about UN have been completed and checked.

[*The note outline the students were working with was displayed, and the presenter said.*]

PT: What did we notice about our notes are organized? It is formatted as an outline with a list of main ideas. Each main idea is followed by a list of supporting details. The result is that the information is well organized, easy to read and made up of the relevant data. [*Paused. The presenter appeared and said the following.*]

PT: Another student could you read your notes and learn almost much about the UN in two minutes as you learnt by listening the long speech. This is an ideal format for your notes whether you are listening to a lecture, researching an easy or planning a presentation. Let's us try one more activity. With the same partner as before, use your note to talk about the

Unites States in complete sentences. Pay particular attention to why the UN was founded, the different organizations of which it is composed, and what needs to be effective. You can get started a right away.

[*Sound track while the presenter disappeared. The animation (the puppet) appeared and said, "Students let's get ready! Begin! " And showed the time. Clock counting down 3 minute + the following text on the screen:* ***Talk about the UN in complete sentences. Use your notes as a reference.*** *When the time is over the puppet said: "Time is up! Let's get back to our lesson". Then the presenter appeared and said the subsequent.]*

CT: I hope you are clear about what you are going to do. You have to talk about the UN using your note outline with the 3 mines.

PT: Hello again. I'm sure you noticed how much you are informed you are about the UN now then you were at the beginning of this lesson. This is the result of taking an excellent series of notes about an informative lecture. I hope you will try to use this form of note taking when you are listening to lectures in the future. When the lesson has concluded, teacher will read the listening text for you a second time.

[*Pause, then the presenter read the following texts while they were displayed one-by-one on the TV screen.*]

- ***Close your Student Book and listen to the text.***
- ***Make your own set of outline notes.***
- ***Compare them with those of a classmate, and with the notes from your Student Book.***

[*Then the presenter appeared and said the following.*]

PT: Today we have learnt a great deal about the United Nations. We have also practicsed our note taking which will be very useful to us as we can continue to learn English. [*Pause*]. In the next lesson, we will discuss 'Ethiopian Millennium Development Goals'. Until then thank you teacher. Thank you students.

[*Logo of CEICT was displayed and music went away. Then, the music and the log faded out. The classroom teacher turned off the TV and requested the students to close their Student Book and to listen to him. Then, he started reading the listening text. Having finished reading the text, the classroom teacher got the students to reflect their views on UN.]*

[Meanwhile, the classroom teacher announced the class as they would not have a plasma lesson the next day, and invited the researcher to say something on the lesson. The researcher had gone to in front and thanked the students for their co-operations. Then, the researcher left the room together with the classroom teacher, his co-observer, and the camera man.]

Appendix F

Sample Field Notes (Researcher's Reflective Journal)

Diary 1

Date: April 09, 2009 **Time:** 8:40 AM–10:00 AM

Setting: Yekatit 12 Preparatory School, Sidist Kilo

Participants: An English teacher, students

Observer's Reflections:

1) Showing my ID and a letter of support I entered the school compound. Students were going to their classes. I heard plasma lessons.
2) Waiting for the director of the school, I talked with an English teacher. He told me as most students hate it, only outstanding students like it. I requested him to observe his plasma lessons. We went to his class in the second period. He introduced me and turned on the plasma TV. The plasma lessons were went away. The classroom teacher sat behind the class and told them to follow the lesson.
3) The classroom was dim. Students were watching the plasma lesson attentively. They straggle to comprehend the lesson.
4) The transmission was interrupted as a result of power interruption. The students turned back to their teacher. The teacher move to the front and told them it would come. Students were murmuring and continued talking in Amharic.
5) The bell rang. The teacher informed they would cover the lesson soon.
6) I thanked the class and went the director's office together with the English teacher. ...

Diary 2

Date: April 20, 2009 **Time:** 8:50 AM–10:00 AM

Setting: Menelik II Preparatory School, Arat Kilo

Participants: Students

Observer's Reflections:

During break time, I informally talked to a group of students in their school background. Our agendum was plasma. I asked their attitude towards the medium. They told me in Amharic several sayings about plasma which reflects students' negative attitude towards plasma. The following song caught my attention:

መርቆ ሸኝቶኝ ፋዘር
አስይዞ ቦርሳና ደብተር
መርሶ ነው ሰፋዘር እማ
አንደኛ ክሌወጣሁማ።
ብማርም ፕላዝማን ችዬ-
ተምሬ ላስተምራቸው
ትልቁን እምነት በእኔ ላይ-
ጥሰየል ምን አሰባቸው።
ከበደኝ ... ፕላዝማ ትምህርት
ከበደኝ ... እኔ መማሪ
ከበደኝ ...ተስፋ ነበረኝ
ከበደኝ ... ሰናት ሃገሬ
ከበደኝ ...ግትስና አንግሊዝ
ከበደኝ ...እንዲሁም ፊዚክስ
ከበደኝ ...መማር አስጠላኝ
ከበደኝ ...ፕላዝማ ላይንስ።
አልሆንልህ አለኝ እኔ
አልሆንልህ አለኝ.....
በል ፋዘር ተስፋህን ቁረጥ
ከበደኝ ...ፕላዝማ ችግር ነው
ከበደኝ ...ልጽፍ ቀና ስል-
ከበደኝ...ወዲያ ድርግም ነው።

Which literary means:

My father encourages and let me go school with bag and exercise books. It is shame on me if I don't rank first. My father expects my great success even though he doesn't know plasma. Plasma lesson is difficult for me. I can't learn properly. I can't understand the subjects: English, mathematics, and sciences. I can't take notes. It makes me hopeless.

Diary 3

Date: April 21, 2009 **Time:** 09:50 AM–12:00 AM

Setting: Addis Ketema Preparatory School, near Awtobis Tera

Participants: Students

Observer's Reflections:

Having got permission, I entered the school compound. It was a break time. The school was flooded by students. I informally talked to the students about plasma. Most of them told me the problems they faced while attending their plasma lessons. Some of them were: the speed of the plasma presenter, noise interference, power interruption, light reflections, and improper classroom management.

A student told me that she wished plasma was interrupted as she could not understand plasma lessons. She informed me that plasma was good for teachers not for students. She said, "Frankly speaking, I cannot understand the language of plasma teachers." Another student added that "even some teachers do not understand the plasma teachers' English." ....The bell rang. Students were rushing to their lessons, and I went to the Director's Office.....

Diary 4

Date: June 08, 2009 **Time:** 10:35 AM

Setting: Ministry of Education, Arat Kilo

Participants: A Curriculum Expert for English language

Observer's Reflections:

I went to MoE for searching the syllabi of preparatory grades. I talked to a curriculum expert for secondary English language education explaining about my project. He informed me that the plasma TV was not properly functioning due to the 'so called' revised books which are not go with the plasma lessons. The expert let me know that they develop a new syllabus and plan new books in line with the new curriculum. International bids will be announced. He showed me the draft new syllabi. He also informed me that plasma content specification are being made, and informed me to go to EMA for more clarification. I was confused. I thought of the fate of my project; the information terrified me.

Soft copies of syllabi of the old English language for preparatory students were collected. ...

Sample Field Notes (Researcher's Reflective Journal)-Continued

Diary 5

Date: June 08, 2009 **Time:** 2:00 PM

Setting: Educational Media Agency (EMA), Mexico

Participants: A Manager; a librarian; an expert

Observer's Reflections:

- The Manager of EMA informed me that the plasma program has been underway throughout the country and the received positive feedback from users. He also informed me that they would continue transmitting the program.
- I went to the Agency's library to search for published and unpublished sources. Talking to a librarian, I collected some unpublished materials related to the plasma TV and some flyers. The librarian briefed the importance of plasma instruction.
- A long with the librarian, I went to a nearby office. Met an expert for plasma programs. The librarian introduced me with the expert and left the room. The expert explained to me the relevance of plasma and informed me as they continue transiting plasma lessons in the coming academic year... Got a bit relief to conduct my pilot study in the coming academic year. Then, I went to the studio in order to watch sample plasma lessons....

Diary 6

Date: October 27, 2010 **Time:** 8:30 AM–09:30 AM

Setting: Ministry of Education, Arat Kilo

Participants: An Expert for English Curriculum

Observer's Reflections:

Discussions were made with an expert for English Language Curriculum. He informed me that new books were ready for the secondary education. He showed me the camera-ready materials. I requested him for the new syllabus, but he let me know they would be available after two months, and advised me to come back after two months. ... I was asked him about the production of the new plasma lessons. He advised me to go to EMA which was responsible for plasma lessons... I noticed that he did not have clear information about the plasma-based lessons.

Diary 7

Date: March 09, 2010 **Time:** 11:20 AM

Setting: Educational Media Agency (EMA), Mexico

Participants: The Manager of EMA

Observer's Reflections:

- The Manager informed me that the program was terminated due to change of curriculum.
- He also informed me as the production of the new plasma lessons were under way.
- I asked him whether or not they had implementation guidelines; no implementation guidelines.
- They bench marked South Africa and Japan according to the Manager.
- They plan to shift to e-learning. ....

Diary 8

Date: March 15, 2010 **Time:** 01:00 PM–03:00 PM

Setting: Derartu Tulu Preparatory School, Kaliti

Participants: a secretary; a director; students; a teacher

Observer's Reflections:

1. I talked the secretary of the school waiting for the director. Plasma was our issue. She told me that she had a son who had attended his secondary grades (9-12) before joining a university. She told me that they were talking about plasma. During its inception, her son informed her as they were watching film the whole day-the plasma lessons. Her son always persuaded her to join him private schools which lessons were offer without plasma. Gradually, her son and his classmates liked plasma since it helped them to improve their English.
2. The director, let me know that they were installing additional plasma display panels in new classrooms. To him, plasma is good despite technical problems.
3. Five students were chatting. I joined them and talked about their classes. They informed me that as plasma was not properly functioning, and informed me that plasma was terminated since it was not effective. However, they told me that they enjoyed their plasma lessons. They wished plasma was not stopped.
4. A teacher, history teacher, explained me as his students followed his class very attentively. He also told me that most students preferred face-to-face instruction than plasma....

Sample Field Notes (Researcher's Reflective Journal)- Continued

Diary 9

Date: March 15, 2009 **Time:** 8:40 AM–10:00 AM

Setting: Bole Secondary and Preparatory School, Bole

Participants: English teachers; students

Observer's Reflections:

I met three English teachers and talked about their plasma lessons. They informed me as it was a good tool, but their students couldn't cop up with the speed of the presenters. The medium was useful to promote students' pronunciation skills. Even it helped them to know how to pronounce certain words.

During break time I talked to two students about their plasma lessons. They told me that plasma filled two major gaps at their school: old teachers' old method and new teachers' incompetency. Plasma used new methods which helped them to promote their speaking skills. The newly hired teachers couldn't teach them English very well; even some of them couldn't express themselves. They also informed me that whether their teachers present or not they turned on the TV since the remote control was in the hand of their monitor.....

Diary 10

Date: *April 05, 2010* **Time:** *8:30 AM–11:00 AM*

Setting: *Menelik II Preparatory School, Arat Kilo*

Participants: *The Director; Department head; Physics teacher*

Observer's Reflections:

- Met with the principal of the school.
- Having obtained permission, I directly observed the physical settings of the school along with the Head of English Department.
- During the observation, plasma lessons were underway. Doors of each section were closed; voices of the plasma presenters and instrumental music were heard. The explanations of classroom teachers were also heard seldom. Going around the classrooms, I found an empty room. The room was full of wooden seats. A plasma TV enclosed in metallic box was mounted at the front adjacent to a rectangular blackboard. Untidy walls, ceiling and floor were observed. I took photos of the scene and left for the receiving and transmission center of the school known as 'co-ship'.
- In the 'co-ship', the Department head introduced me a person, a Physics teacher who served as a technician for plasma TV. He briefed me how lessons are received and transmitted. I, then, went to where a huge satellite dish receiver was found. I took a picture of the dish. The satellite dish receiver was fenced with wire and wood.
- I moved to the school's computer center. Students were attending their IT class. I asked the IT technician if plasma lessons were installed in the ICT Center...He let me know as they were not provided with the lessons..... each block of the school was located in relation to other classrooms (each classroom was closely

Diary 11

Date: *April 06, 2010* **Time:** *9:00 AM–12:00 AM*

Setting: *Medehanealem Preparatory School, Medehanealem*

Participants: *The Director; the secretary of English Department; unit leader; 'plasma technician'; student*

Observer's Reflections:

- I visited the school compound with a unit leader. Plasma lessons were underway. Next, the physical settings of classrooms like seating arrangements, installations of the plasma TV and blackboard, and overall atmosphere of the class were observed.
- The settlement of most of the classrooms was scattered (blocks were located apart from each other) so that noise was not common.
- The secretary of English department informed me that the government was planning to stop the plasma instruction as it was not effective. He added that it was a surprise that the program was terminated after it costs a huge amount of money.
- Teachers and students were observed browsing Internet; the library was well equipped; ICT centers were equipped with new computers.
- The director of the school informed me that they were striving to use the plasma lessons properly even though some teachers and students hate it.
- I talked informally with a student about the plasma; he told me that almost all of the students were not will to learn via plasma due to its speed and language difficulty. Only teachers like plasma since it gives them relief. ....
- The 'plasma technician' explained to me how the plasma is installed and how lessons are received and transmitted to each section.....

Diary 12

Date: May 03, 2010 **Time:** 8:40 AM

Setting: Menelik II Preparatory School, Arat Kilo

Participants: Door men

Observer's Reflections:

I tried to enter the school to distribute the questionnaires to check their content validity. However, the atmospheres of the school were not suitable; I could not get permission from school administrators due to the 2010 national election. I was also informed as schools were very busy to cover annual portions and to give examinations...

The door men advised me to come back after the election. ...Late comer students were pleading the door men to enter the school....

Sample Field Notes (Researcher's Reflective Journal)- Continued

Diary 13

Date: October 28, 2010 **Time:** 8:30 AM–09:00 AM

Setting: Educational Media Agency (EMA), Mexico

Participants: An expert for plasma programs productions

Observer's Reflections:

I discussed with an expert issues regarding the production of the new plasma lessons. I was informed that priority was given for natural science subjects in producing the new plasma lessons having in mind the 70:30 ratios (the government's project 70% for natural sciences stream and 30% for social sciences stream). The programs of natural science subjects would be on air in the second semester of the academic year. Then, the production of other subjects followed.

The expert also let me know that they tried a demo project to digitize plasma lesson in two schools (Hawassa and Bahir Dar). They planned to set up the program to all schools in which plasma was installed.

Specifically, I talked to him about the production of English plasma lessons. He informed me that since the new book was not published they faced in difficulty to specify plasma contents. Besides, he informed that the new plasma lessons be covered 20 minutes... ...

Diary 14

Date: *November 26, 2010* **Time:** *8:30 AM–11:00 AM*

Setting: *Menelik II Preparatory School, Arat Kilo*

Participants: *English teachers*

Observer's Reflections:

- *Having selected randomly three English teacher interviewees with the help of Department Head, I tried to contact them and requested them for their consent for the interviews. Two of the respondents expressed that they did not wish to be interviewed; they did not want to say anything about plasma. This is because they explicitly told me that they feared of the government official as plasma is the issue of politics. Even one of them told me hesitantly that he was not sure if I was the agent of the government (he realized me as if I was conducting the study on behalf of the government). A teacher also informed me that plasma was launched for political consumption. He added that the government launched the program and interrupted it without informing them...*
- *Most of the teachers considered plasma as a device launched for political consumption. Some of them also thought that the technology was launched to replace them....*

Diary 15

Date: December 02, 2010 **Time:** 9:00 AM

Setting: Educational Media Agency (EMA), Mexico

Participants: A manger of EMA

Observer's Reflections:

- Having got permission, I entered the Manager's Office and requested for their cooperation. I requested him to allow me to review the scripts of the new plasma English lessons and to access any documents on the improvements of the new plasma lessons. He advised me to contact a librarian.
- I saw the following text in Amharic aside the Manager's seat:
  የትምህርት ኢንፎርሜሽንና ኮሙለኒኬሽን ቴክኖሎጂ ዋና የሥራ ሂደት ራዕይ
  - የኢንፎርሜሽንና ኮሙኒኬሽን ቴክኖሎጂን በመጠቀም ደረጃውንና ጥራቱን የጠበቀ ትምህርት በማንኛውም ጊዜና ቦታ ለሁሉም ዜጎች ተዳርሶ ማየት::
    አንድ ለሁሉም፣ ሁሉም ለአንድ!

  (It is to mean that the vision statement of the Center is that to deliver standardized and quality education for all nations anywhere and anytime using ICT; one for all and all for one!)
- A good vision and good ambition if it is implemented on ground reality.....

Diary 16

Date: December 23, 2010 **Time:** 10:00 AM

Setting: Medehanealem Preparatory School, Medehanealem

Participants: A director; teachers; students

Observer's Reflections:

I talked to the director of the school about plasma lesson. I asked him whether or not they were formally informed about interruption of plasma lessons. He informed me that they were not formally informed the reasons why the transmissions were terminated... He added that the major problem of plasma was accountability. It was difficult to know the responsible body, whether it was MoE, EMA, or Tele. When they faced problems they were told to contact Tele when they phoned to EMA. Tele also informed them to deal the problem with EMA or MoE...

I also tried to ask some teachers and students to share me the reasons of the interruptions of plasma lessons. They let me know that nobody informed them formally the reasons of plasma lessons interruptions, but they informally heard that the transmission was interrupted since the program was not effective....

Sample Field Notes (Researcher's Reflective Journal)- Continued

Diary 17

Date: September 28, 2011 **Time:** 8:40 AM–10:00 AM

Setting: Addis Ketema Preparatory School, Awtobis Tera

Participants: English teacher; students

Observer's Reflections:

I watched the new plasma lesson. Almost all of the students were passively watching the plasma lessons attentively. When they were asked to perform the activities, they talked with their classmates instead of doing them. The classroom teacher also watched the lessons with concentration and informed them as they would get the answers from the screen.

Students were not provided with the new text book which the new plasma was broadcasted based on it. When the transmission over, teachers used the old book.

It seems that most of the students and teachers eager to use the new plasma lessons...

Diary 18

Date: *January 10, 2012* **Time:** *8:30 AM–11:00 AM*

Setting: *Millennium Preparatory School, Atana Tera*

Participants: *The Vice Director; Department head; Technician*

Observer's Reflections:

- *The Vice Director informed me that they were in trouble to implement the new plasma lessons due to irregularity of transmissions and insufficient transmissions.*
- *The Department head also let me know that the ways the new plasma lessons were transmitted was inconvenient to students. Teachers were in trouble to use them due to the irregularity of transmission and broadcast malfunctions.*
- *The technical said that there were channel distortions in broadcasting the new plasma lessons. Most of the lessons were not broadcasted in line with the time table they were provided to.*
- *I moved to the 'co-ship' with the technician. Lessons were broadcasted in two channels. There were not transmissions in the rest ten channels, as the technician showed me. Then after we were visiting the school compound. The technician informed me that students disconnected the plasma TV connectors and broke electric lines in order to distract the broadcasts. We saw disconnected lines of the plasma TV networks...*

Diary 19

Date: *January 16, 2012* **Time:** *9:00 AM–12:00 AM*

Setting: *Dej. Balcha Abanefso Preparatory School, Dar Mar*

Participants: *The Director, the English Department head, 'plasma technician'*

Observer's Reflections:

- I visited the school compound along with the director of the school, the department head and a plasma technician after my classroom observations. While we were visiting the 'co-ship' which plasma lessons were received and transmitted locally in the school, the technician briefed us how plasma screen could be used for other purposes. It could serve as a power point projector or video lessons could also be transmitted locally.
- The technical showed us by transmitting a video lesson connecting a DVD player to one of the plasma program receivers.... The department head and I went to nearby classrooms and checked the video lessons. We watched the video lessons broadcasted from the 'co-ship'. Then, we went to the 'co-ship' and test for other uses of the technology. During the break time we also checked for other uses; connecting my lap top to the plasma TV, I tried to present power point presentations. It works...Then, we went to the 'co-ship' and we tried other more uses of the technology. I realized that plasma could be used for multi purposes....

Diary 20

Date: March 27, 2012 **Time:** 10:30 AM

Setting: Center for Educational Information Communication Technologies, Mexico

Participants: Two experts; Technicians

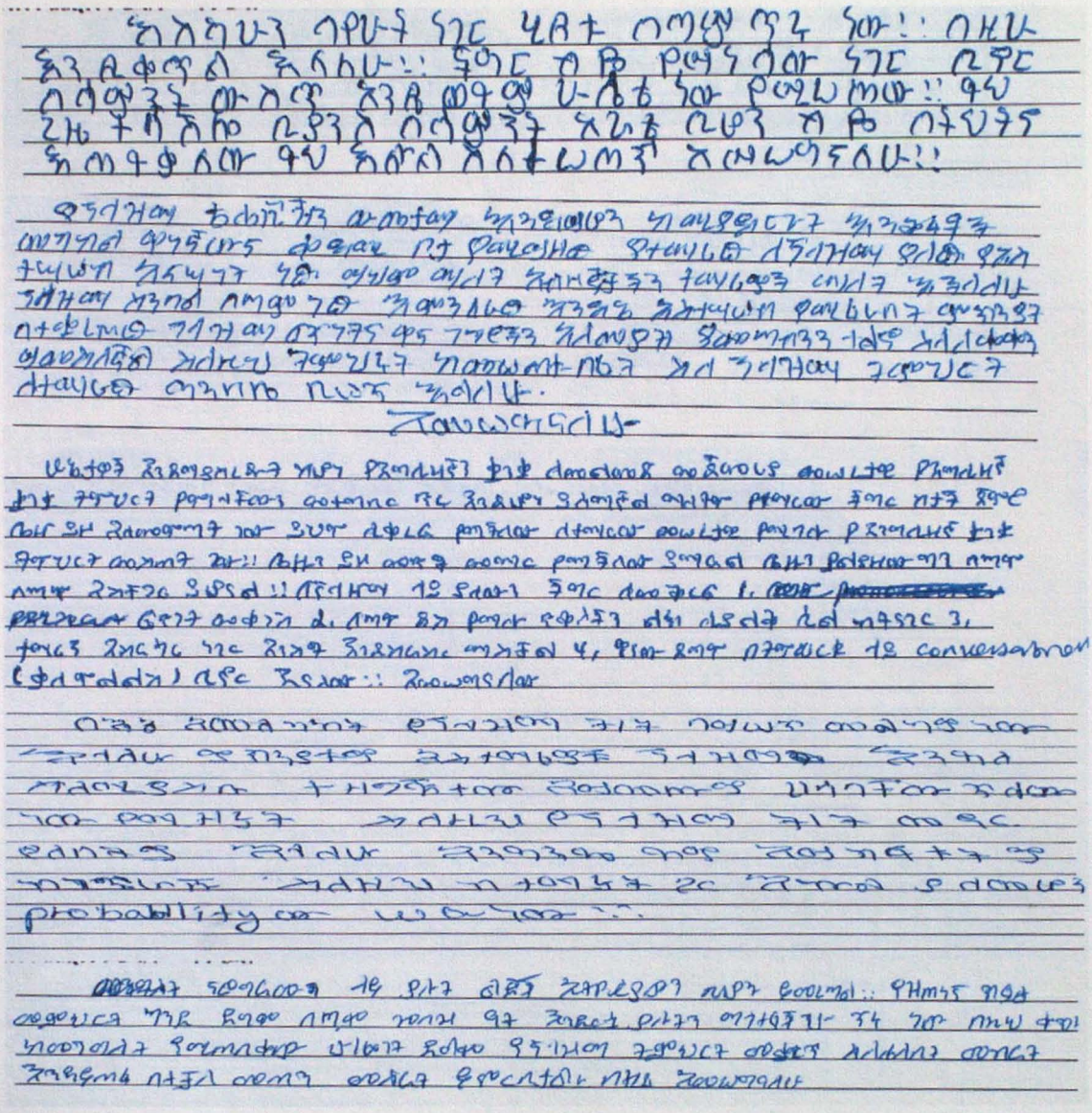
Observer's Reflections:

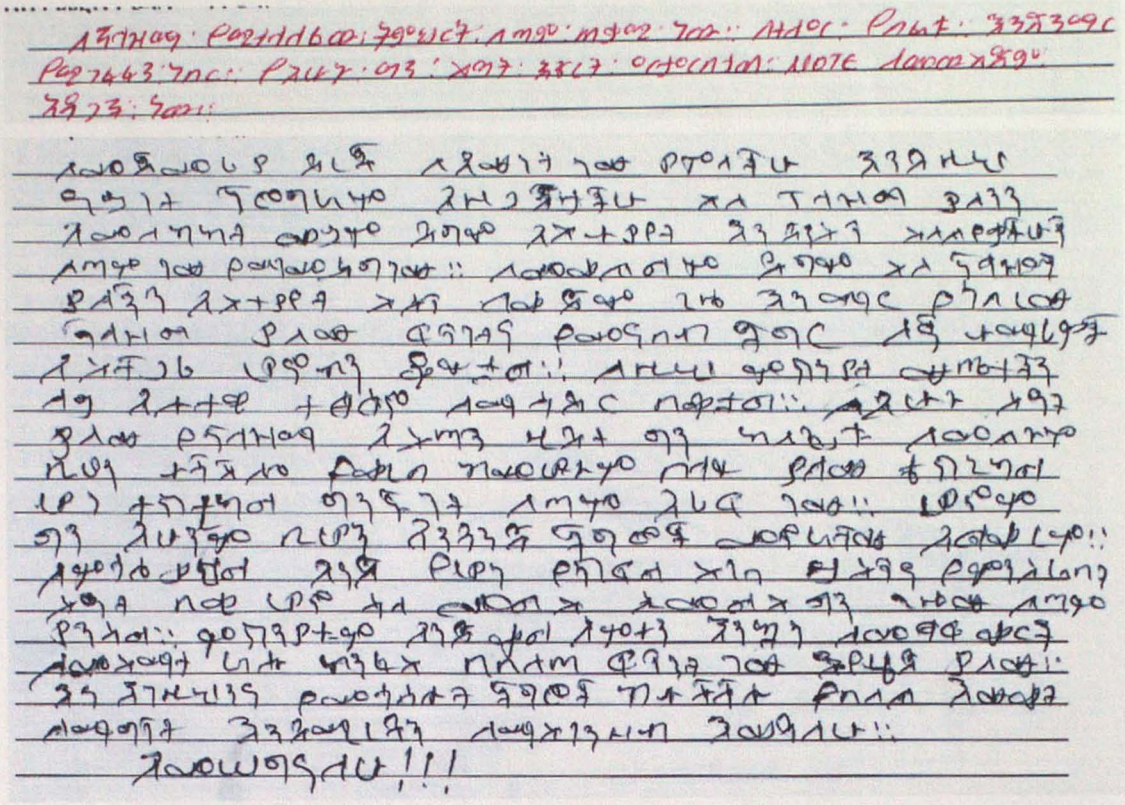
I along with two experts visited the broadcast room (the room where plasma lessons were transmitted). Technicians briefed us how lessons are broadcasted and how they their proper transmission is checked. Then, we moved to another room which the digitization programs are setting up. We saw technicians compressed plasma lessons and converted the row formats of plasma lessons into DVD and Web formats. One of the technicians explained us how plasma lessons are digitized and accessed by users. Next, we moved to a room where a huge server is found. We were informed how plasma lessons are installed in the server provider and how it functions....

Appendix G

Sample Students' and Teachers' Responses to Open-ended Items

Appendix G1: Sample Students' Responses to Open-ended Items





Appendix G2: Sample Teachers' Responses to Open-ended Items

- There should be a well organizes program at a time. b/c some time the plasma channel is not good. it is on and off it decreases the effectiveness of the lesson.
- The time that is given to (reading) Skill a text in English should be revised and be given enough time to students
- The program is overall fair and helpful for students to learn language effectivly

The plasma Any of the courses we teachers took while we were trained to be teachers of English, were irrelated to plasma & its application. As a result, we face an immense of problems how to balance make a balance of the students' & plasma pace. And I don't think most teachers are able to fill thés wide gap (discripancy). Nor we are given any training once we are made to use that technology. So that, atraining to all English teachers is obligatory.

- it is not effecstive b/c the teacher have no know how about the lesson how to teach them

The policy that consists of on the book is political based it is not language based followed by that the mode of plasma transmission is again full of politics so that the learning process is detororated and will detororating.

If you get a placement please tell them the police maker to modify the policy unless the next Generation will be illetrated.

Sometimes it is difficult to find the plasma guide before the transmission and I fail to prepare myself and the lesson beforehand.

If you ask me, I'd like to say the following on the former plasma-English lesson one.
- It should have been kept as it was before.
- And also needs to be inclussive (in speed) for the higher, medium & lower achiever ones.
- The so called improved one (the later plasma Based English) is something unmanageable and disorganized especially the programme it has & the approaches it is with.
- Training should be given for teachers on how to manage the plasma teaching mechanism one.

- The transmition has to be at least three days in a week.
- English language ~~plasma~~ teachers have to be offered courses which help them to use the plasma effectively.

- The time allocated for the plasma transmission is not enoughworthy – the number of periods per year & the time for
- It doesn't cover ~~all the~~ every area of the skills to be covered.
- As it doesn't encourage pupils for further discussion & is confined in twenty minuts or less, it is difficult

- I Would recomend the plasm channeled English to be confined to the listening skill ones & other areas to be covered by classroom teacher.

Please. Just try to increase the number of plasmas lesson and Just try to do effectively based on the programme of the [illegible].

Appendix H

Results of Classroom Observations

Part I. Physical Settings

Item No	Results Obtained by the Researcher			Results Obtained by the Co-observer			Total Results		Total
	Yes	No	Total	Yes	No	Total	Yes F (%)	No F (%)	
1	4	11	15	6	9	15	10(33.33)	20(66.67)	30
2	13	2	15	12	3	15	25(83.33)	5(16.67)	30
3	15	—	15	14	1	15	29(96.67)	1(3.33)	30
4	6	9	15	8	7	15	14(46.67)	16(53.33)	30
5	10	5	15	13	2	15	23(76.67)	7(23.33)	30

Part II. Activities Concerned with Plasma Presenter, Classroom Teachers and Students

Details	Item No	Results Obtained by the Researcher(N=15)					Results Obtained by the Co-observer(N=15)					Total Results(N=30)					Total
		Always	Sometimes	Undecided	Rarely	Never	Always	Sometimes	Undecided	Rarely	Never	Always F (%)	Sometimes F (%)	Undecided F (%)	Rarely F (%)	Never F (%)	
A.TV teacher's activities	1	4	9	2	—	—	2	11	2	—	—	6(20)	20(66.67)	4(13.33)	—	—	30
	2	2	12	—	—	1	—	14	—	1	—	2(6.67)	26(86.67)	—	1(3.33)	1(3.33)	30
	3	8	4	—	—	3	—	9	—	5	1	8(26.67)	13(43.33)	—	5(16.67)	4(13.33)	30
	4	6	7	2	—	—	4	11	—	—	—	10(33.33)	18(60)	2(6.67)	—	—	30
	5	—	15	—	—	—	3	12	—	—	—	3(10)	27(90)	—	—	—	30
	6	6	7	—	2	—	3	8	4	—	—	9(30)	15(50)	4(13.33)	2(6.67)	—	30
B. Classroom Teacher's application of TPACK	1	—	—	7	8	—	—	1	8	4	2	—	1(3.33)	15(50)	12(40)	2(6.67)	30
	2	8	6	1	—	—	13	—	1	1	—	21(70)	6(20)	2(6.67)	1(3.33)	—	30
	3	3	6	—	4	2	1	6	8	—	—	4(13.33)	12(40)	8(26.67)	4(13.33)	2(6.67)	30
	4	6	7	2	—	—	—	—	7	6	2	6(20)	7(23.33)	9(30)	6(20)	2(6.67)	30
	5	2	10	—	3	—	1	12	—	2	—	3(10)	22(73.33)	—	5(16.67)	—	30
	6	1	1	4	3	6	1	2	6	5	1	2(6.67)	3(10)	10(33.33)	8(26.67)	7(23.33)	30
	7	—	—	—	11	4	—	—	3	2	10	—	—	3(10)	13(43.33)	14(46.67)	30
	8	—	—	3	9	3	—	—	—	8	7	—	—	3(10)	17(56.67)	10(33.33)	30
	9	—	1	1	13	—	—	2	6	7	—	—	3(10)	7(23.33)	20(66.67)	—	30
	10	—	—	1	14	—	—	1	4	7	3	—	1(3.33)	5(16.67)	21(70)	3(10)	30
C. Students' participation	1	7	6	1	—	1	7	5	3	—	—	14(46.67)	11(36.67)	4(13.33)	—	1(3.33)	30
	2	1	12	—	2	—	—	14	1	—	—	1(3.33)	26(86.67)	1(3.33)	2(6.67)	—	30
	i	—	—	2	4	9	—	—	—	1	14	—	—	2(6.67)	5(16.67)	23(76.67)	30
	ii	1	6	2	6	—	—	3	4	6	2	1(3.33)	9(30)	6(20)	12(40)	2(6.67)	30
	iii	—	1	—	—	14	—	—	—	—	15	—	1(3.33)	—	—	29(96.67)	30
	iv	1	9	—	3	2	—	—	7	6	2	1(3.33)	9(30)	7(23.33)	9(30)	4(13.33)	30

Part III. Assessments on Demonstrative Activities on the Plasma TV

Item No	Results Obtained by the Researcher				Results Obtained by the Co-observer				Total Results			
	Yes, completely	Yes, somewhat	No	Total	Yes, completely	Yes, somewhat	No	Total	Yes, completely	Yes, somewhat	No	Total
									F (%)	F (%)	F (%)	
1	12	3	—	**15**	13	—	2	**15**	25(83.33)	3(10)	2(6.67)	**30**
2	9	6	—	**15**	15	—	—	**15**	24(80)	6(20)	—	**30**
3	5	7	3	**15**	4	6	5	**15**	9(30)	13(43.33)	8(26.67)	**30**
4	—	9	6	**15**	—	12	3	**15**	—	21(70)	9(30)	**30**
5	7	5	3	**15**	10	3	2	**15**	17(56.67)	8(26.67)	5(16.67)	**30**

Part IV. Facilities

Details	Item No	Results Obtained by the Researcher				Results Obtained by the Co-observer				Total Results			
		Yes	No	Unknown	Total	Yes	No	Unknown	Total	Yes	No	Unknown	Total
										F (%)	F (%)	F (%)	
For students	1	15	—	—	**15**	15	—	—	**15**	30(100)	—	—	**30**
	2	—	15	—	**15**	—	15	—	**15**	—	30(100)	—	**30**
	3	—	15	—	**15**	—	15	—	**15**	—	30(100)	—	**30**
	4	3	3	9	**15**	—	2	13	**15**	3(10)	5(16.67)	22(73.33)	**30**
	5	—	15	—	**15**	—	15	—	**15**	—	30(100)	—	**30**
For teachers	1	15	—	—	**15**	15	—	—	**15**	30(100)	—	—	**30**
	2	3	9	3	**15**	3	10	2	**15**	6(20)	19(63.33)	5(16.67)	**30**
	3	—	7	8	**15**	—	7	8	**15**	—	14(46.67)	16(53.33)	**30**
	4	10	4	1	**15**	9	6	—	**15**	19(63.33)	10(33.33)	1(3.33)	**30**
	5	—	15	—	**15**	—	15	—	**15**	—	30(100)	—	**30**

Appendix I

Responses to Interview Items

Appendix II: Students' Responses to Interview Items (Recorded and Transcribed)

Item No	Questions	The Responses of Interviewees			
		Student 1	**Student 2**	**Student 3**	**Student 4**
1	Do you have any information about why the plasma program is preferred to the conventional (traditional) instruction?	It is said that to present lessons clearly using pictures and video instead of the classroom teacher. And to make lesson clear.	The objective is to deliver the same lessons to all Ethiopian students.	It seems to me that to promote students' English language skills, and to present demonstrative activities.	To support our teaching-learning.
2	Have you always been taught English with the plasma TV whenever such programs exist? If not, can you recall the reasons?	We have been learning through plasma if there is transmission, but this year there are very few transmissions.	Yes.	No, for instance, there are plasma transmissions these days. However, teachers are not regularly open it. Even, some of them never use it.	We have learnt sometimes. Especially, this year we have been learning by plasma once or twice a week.
3	Could you comment on the plasma presenter's ways of delivery and the ability and of your classroom teacher using the televised instruction?	Often, they have speed. It was very difficult to take notes. [*Do students follow the plasma lessons attentively?*] Yes. [*Do they prefer it to the classroom teacher?]* Most of them preferred the classroom teacher. This is because the classroom teacher's explanations are clear. [*How do you get the activities?*]. They are interesting.	What I can tell you is about the new plasma lesson. The speed of the presenters is normal, even sometimes very slow. For instance, if she says 'magnesium, she says, 'm-a-g-n-e-s-i-u-m'. But the time given for taking notes is not sufficient. [*How do you find students' participation?*]. Most of them are not interested. They are joking. Even some teachers turned on the plasma and sat at the back. If they are interested they can watch, or they can do other things.	I found the new plasma lesson quite interesting. The speed is improved. Moreover, enough time is given the teachers. [*Does the classroom teacher give you the necessary support?*]. Yes, they sometimes muted the plasma and gave us further clarifications. They also told us to do this and that.	I like the plasma teacher's way of delivery. I personally like her. [*Does your classroom teacher assist you?]* Yes.

4	Do you think that the classroom settings are suitable for the plasma-based ELT?	Yes, they are suitable.	Yes.	They are good, but some students disturbed during the transmission. The other thing is if the plasma is installed at the corner of the class, there are light reflections. It would very nice if the plasma was installed at the center of the class. The movable one is good.	Yes, they are suitable. But same classes have reflection.
5	Do you believe that your English language teachers are interested in and willing to working with the plasma-mode of instruction? Why?	Not all of them; some of them have competence. [*Why you say that some of them?*]. Because most of them do not have confidence to use plasma. They don't like to use it.	I think that most teachers are not interested to work with plasma. They thought that as it hasn't relevance.	You see, some sections are learning with plasma and others are not. In this year, for example, we have been learning only English and Mathematics. [*What do you think the reason is?]* I think that teachers do what they want not what their students want. [*Do you mean that students like to learn through plasma?].* Yes, most of them in this year.	Yes, they are interested because plasma assists them.
6	In your opinion, does learning by the televised instruction contribute to improve your English language skills? If yes, how? If no, why?	It helps me to improve my English skills. It helps me to master clear English language. You see, when the classroom teachers speak English, it is near to Amharic, and it doesn't seem English they also prefer to speak in Amharic.	I think it is relevant. It helps me to learn how I speak English. Even plasma persuades me to refer additional book since I missed some lessons.	It helps me to develop my listening abilities. [*How about other skills?*]. It is better to promote listening skills than other skills.	Yes, because when you learn through plasma, you only learn in English. So, this helps you to improve your English.
7	To what extent are televised activities appropriate for the English language instruction? Are they interesting enough and consistent with the teaching materials?	The activities go with the book. They are relevant to improve our English skills.	I don't think because they are presented on complicated way.	The activities are presented corresponding to the textbook. They also related to what we have taught so far. For example, while the plasma teacher presents about paragraph, she first reminds us what we have discussed about the steps that we have to follow.	They are interesting, but some of them are beyond our language abilities.

8	In your opinion, what were the major strong and weak points of the terminated televised English language instruction?	There were lots of contents that I haven't understood. The language was difficult to understand, we didn't know the meaning of most of the words; therefore, we missed most of the plasma explanations. The strong side was it presents lessons using pictures, motions.	The strong side was for portion coverage. The other thing was it makes the knowledge flow equal throughout the country. You could also watch some experiment which you couldn't access in your school. The weaknesses were the time allocation to do activities, and the language of the presenters.	The weak side was it lacked clarity. We often tried to learn using it; however, it lacks clarity. The image and sound were not clear. It was full of tracks. It often said no signal; bad signal. The strong side is the speed is improved.	I want to tell you only its advantage. To me, it helps to improve my language skills.
9	How do you find the improved (new) plasma-based English language instruction? To what extent is it different from the terminated one?	We have seen the new plasma for one or two times per week. We have learnt sometimes, but when I was in grade 9, we have learnt regularly. [*To what extent the new plasma is different from the old one?].* It's difficult to compare.	It is not properly implemented the new one is fifty-fifty, but it is not presented regularly.	Actually, the new plasma and the new book are good. It is interesting. But is not broadcasted regularly.	I know the new one. It is interesting. The problem is it is broadcasted once or twice a week, and some teacher are not also teach us using it.
10	Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?	No, a fifty, fifty percent. It is not effective. [*Do you think student like to learn with plasma?].* I don't think. [*Why?].* It is difficult to understand plasma lessons.	I don't think it is effective.	To me, according to the cost of the program, it is difficult for me to say it is used effectively. I think that the plasma TV is installed with a lot of cost, but we are not using it compare to the costs of the program. So, I don't think that the practice is effective.	I don't think it is properly used. Because some teachers prefer teaching without it. Some students also have negative attitude towards plasma.

Students' Responses to Interview Items (Recorded and Transcribed)–continued

Item No	Questions	The Responses of Interviewees			
		Student 5	Student 6	Student 7	Student 8
1	Do you have any information about why the plasma program is preferred to the conventional (traditional) instruction?	I haven't heard clear reasons. However, I think that it is preferred to introduce us with a technology, and it improves our language skill. It shows us how to pronounce English words since the presenters are native speaker.	I think that to deliver the same lesson to all students in the country.	I think to cover the lessons timely.	It is believed the plasma gives lovely lessons. As far as my learning experiences are concerned, plasma presents lessons in different ways, using different reference materials timely.
2	Have you always been taught English with the plasma TV whenever such programs exist? If not, can you recall the reasons?	Yes, if we have plasma lesson. For example, I think we have English once a week, on Wednesday this year. Our teacher teaches us using plasma.	Sometimes, even though there were transmissions, our classroom teachers did not open it. There were also sometimes technical problems.	We sometimes learnt through plasma.	No, we were not properly using it. [*Why?*]. Students did not like it, teachers as well.
3	Could you comment on the plasma presenter's ways of delivery and the ability and of your classroom teacher using the televised instruction?	To me, I like their way of presentation. But the time covered by the plasma teacher is less than the precious one. Most students are also not paying attention to plasma lessons. They simply watch it. Even when they are told to do activities, they talked to their friends. [*Do the classroom teachers give the necessary support?*] Yes, but students do not give attention.	The approach is good, but it needs your good English language background. If you have good English background, you like it. If not, you are confused.	Their pronunciation is difficult to understand. [*Do you think that you get the necessary support from your teacher?*] No, most of them opened it and sat on the back.	It is good, but the language is difficult to understand. [*Did students actively participate?*]. No, they were not.
4	Do you think that the classroom settings are suitable for the plasma-based ELT?	The classroom atmosphere is good. But there are some disturbances and noise.	It is good. The number of students is very few.	It's good.	It is good. The classroom condition is good.

5	Do you believe that your English language teachers are interested in and willing to working with the plasma-mode of instruction? Why?	I think they are interested to teach using plasma [*Can you tell me the reasons?*] Because it gives them relief.	I don't think because they often prefer to teach by themselves. You see, they open it for formalities.	Yes, they are interesting. It gives relief them. If plasma works, they don't worry whether or not they prepare themselves for teaching.	Most teachers preferred to teach face-to-face, because their students prefer to learn without plasma.
6	In your opinion, does learning by the televised instruction contribute to improve your English language skills? If yes, how? If no, why?	Ehhhe… Actually, I have learnt by plasma this year. [*Do you think that it helps for your English skills improvements?*] Not that much. But if you follow attentively, it helps to promote your pronunciation skill.	It helps to improve our languages. I learn a lot from plasma.	Yes, it helps to improve my English. You see our classroom teachers teach us English in Amharic. They explain in Amharic. But plasma teachers present English in English, so this helps us to improve our English.	Yes, it promotes our listening and speaking skills.
7	To what extent are televised activities appropriate for the English language instruction? Are they interesting enough and consistent with the teaching materials?	Yes, they are appropriate to promote our skills. They are also coincided with the text book.	They are interesting, but our teachers focus on the textbook, their target is to cover the book. So, instead of getting us to do plasma activities, they make us do exercise from the book. It seems to me that when the plasma lessons were produced, they were produced in hurry.	They are interesting, but they are difficult to understand.	They are good; they are interesting.
8	In your opinion, what were the major strong and weak points of the terminated televised English language instruction?	The first problem is, as I told you, the time that covered by the plasma was very short. It didn't help us to discuss the issues within this short period of time. The other problem was the accent of the presenter was difficult to comprehend to some students. They often said, "What did she say?"	The strongest side is it was helpful to promote our language skills. The problem was some of the activities were not attractive.	The speed of the presenter and the time given to perform the activities were the major problems.	The problem is that students have negative attitude towards plasma.
9	How do you find the improved (new) plasma-based English language instruction?	It's good, but it is infrequent.	I found it interning, but it lacks arrangement.	The new one is not broadcasted always. They are broadcasted once or twice a week. It covers half	As I see it, it is good, but it is broadcasted sometimes.

	To what extent is it different from the terminated one?			of the periods.	
10	Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?	To me, it is excellent. Specially, it helps us to improve our language.	I think it is not effective. I don't think it meets its objective. It causes crises in our country. I think the producers are paid in USD. It is very expensive. I think that the cost of the program and the advantages we obtain from plasma are not equivalent. I think that there is a huge gap between the schools and the producers, too. This should be improved.	I don't think it is effectively used. Because we have negative attitude towards the program.	I think that to make it effective, plasma has to begin in the lower grades. I don't think that it's properly implemented.

Students' Responses to Interview Items (Recorded and Transcribed)–continued

Item No	Questions	The Responses of Interviewees			
		Student 9	Student 10	Student 11	Student 12
1	Do you have any information about why the plasma program is preferred to the conventional (traditional) instruction?	It seems to me that to reduce teacher's burden.	To give equitable education. To give equal lessons to all students.	First it is to deliver lesson by native speakers. The other objective is to deliver lessons to all students.	It helps us to improve our English language skills. It also helps to have standardized lessons.
2	Have you always been taught English with the plasma TV whenever such programs exist? If not, can you recall the reasons?	We sometimes learnt with it.	We have been learning, but sometimes the teachers turned it off and taught us face –to- face.	Yes, sometimes.	Yes, but we have had learning English in this semester for about six times. [*Can you tell me the reason?]*We have been learning unit 1 and 2 from the old book. The new plasma is based on the new book. We have started learning by plasma after we have received the new book.
3	Could you comment on the plasma presenter's ways of delivery and the ability and of your classroom teacher using the televised instruction?	The plasma presenters' way of presentation is good, but their language is difficult to understand. [*Do students actively participate?]* You see, we have learnt through plasma for two year. Most students thought that plasma was not good. The programs are improved in this year, but since students were informed or thought learning through plasma as waste their time. They don't like it. Students are tiered of plasma.	I have two opinions, negative and positive. Their accent is difficult for me to listen. The other is their speed. It does not go with my pace of learning. The advantage is animation and demonstrative activities are presented. [*Do students follow the lessons attentively?]* Yes, they follow it attentively no matter how they understand it or not. They follow it not to miss the lessons. However, students are not interested with plasma since it does not go with their level of understanding.	I personally prefer the face –to-face teacher. The plasma TV instruction does not take in consideration our level. [*How do you find the classroom teacher's roles?]* They have not helped us. They turned on the TV and watched with us.	As far as I'm concerned, only few students have followed plasma, those who have good academic performance. Only 3-5 students can follow it properly per section. This is because of the language of the presenters.
4	Do you think that the classroom settings are suitable for the plasma-based ELT?	They are suitable.	We don't have problem in this respect.	Yes, they are suitable.	It is suitable.

5	Do you believe that your English language teachers are interested in and willing to working with the plasma-mode of instruction? Why?	I don't think that they are interested because the plasma teachers dominated them. Classroom teachers thought that the plasma teachers are better in knowledge than them. Evan some of them don't understand the plasma.	No. they are not interested. You see, plasma over took teachers' part. It makes the teacher learners not teachers. But gives relief to the teachers.	Yes, they are interested. It is a relief for them. If there is plasma, they will not be asked questions.	I have learnt plasma for two years; this year and when I was in grade 9. I was regularly learning English by plasma, but this year I have learnt less frequently. When I was in grade 9 all of our teachers made us learn via plasma. However, this year, only some of them get us to learn by plasma.
6	In your opinion, does learning by the televised instruction contribute to improve your English language skills? If yes, how? If no, why?	It helps to improve our listening and speaking skills.	Yes, to some extent because plasma is presented all in all in English.	Yes, it has relevance. We can learn the real English pronunciation.	To me, it does not help me to improve my English skills.
7	To what extent are televised activities appropriate for the English language instruction? Are they interesting enough and consistent with the teaching materials?	Yes, they are interesting, but they are not go with the students' interest.	They actually motivate us to learn, but sufficient time is given to work through them.	They are very good. They are simple to understand for me. They are participatory.	The activities are interesting, but students do not follow them properly their target is not language improvement, but passing the entrance exam.
8	In your opinion, what were the major strong and weak points of the terminated televised English language instruction?	Its advantages were it promotes our English skills. It also helped us to demonstrate activities. Its weaknesses were it did not consider students' competence. It did not follow the level of Ethiopian students.	The major problem was the accent of the presenters was difficult to understand. The other was time; we were given a very limited time to do activities and to take notes.	I know the new one very well, but it doesn't go with the students' ability. It is difficult to understand.	The advantage was all schools in country received similar lessons. The weakness, specially, the new one confused us. It begins with a certain points, and then jumped to another point.
9	How do you find the improved (new) plasma-based English language instruction?	We have learnt some subjects with it. It doesn't have any major change. The only thing they improved is the time; 20 minutes	It is good, but it is not properly employed by the teachers.	It is very nice. I found it nice, but it is transmitted rarely.	By the way, I preferred the old one. It was convenient to follow, the new one, on the other hand, has been transmitted not

	To what extent is it different from the terminated one?	are covered by plasma. Of course, the speed is improved. But still students are not interested to use it. You see, they are joking at the animation –'the puppet'.			regularly.
10	Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?	In my opinion, it is not effectively practiced.	It would be very nice if we were provided with CDs or DVDs …. I don't think it is implemented properly. It is on and off. I only learnt in plasma properly when I was in grade 9. Now it can be said plasma is not functioning.	I don't think it is effective. It is not employed as it is expected.	I don't think that it is practiced effectively especially the new one.

Students' Responses to Interview Items (Recorded and Transcribed)–continued

Item No	Questions	The Responses of Interviewees		
		Student 13	Student 14	Student 15
1	Do you have any information about why the plasma program is preferred to the conventional (traditional) instruction?	I believe that to support the classroom teachers and to present demonstrative activities clearly. It also presents teaching aids, laboratory experiments.	To teach similar lesson to all students across the country.	Ehhh…I think that to provide uniform education for all nations.
2	Have you always been taught English with the plasma TV whenever such programs exist? If not, can you recall the reasons?	If there are transmissions, we have used the plasma.	We sometimes learn. [*Why not regularly?*] Sorry, I don't know.	Yes, we have been taught with it.
3	Could you comment on the plasma presenter's ways of delivery and the ability and of your classroom teacher using the televised instruction?	The plasma teachers' way of delivery is good for fast learners. This is because the plasma teachers are very fast. Their accent is difficult to understand. The concepts are also difficult to comprehend. [*How do you find your English teacher's ability to teach English using plasma?*] He explains to us the points that we cannot understand from plasma. He also uses plasma correctly.	The plasma teacher's presentation is good, but we don't like it. [*Why?]* Because it is difficult to understand the language.	I think that it is good, but the presenters were a little bit speedy. Most of the students are not interested to learn by plasma because of their poor English background.
4	Do you think that the classroom settings are suitable for the plasma-based ELT?	It is good; all students can follow the plasma.	The classroom has no serious problem.	Yes, it is suitable. But in some sections, the plasma screened has inclined position. This causes some students to watch the TV diagonally. As you see, the plasma in our section is movable. All students can watch it without any difficulty as it is installed at the center.
5	Do you believe that your English language teachers are interested in and willing to working with the plasma-mode of instruction? Why?	Yes, they have interest because plasma assists them.	Yes, they are interested. [*Why?*] Because plasma covers their part. It gives them a relief.	Yes, they are. Because it gives them a relief.

6	In your opinion, does learning by the televised instruction contribute to improve your English language skills? If yes, how? If no, why?	It does not help me that much.	I don't think it is difficult to understand.	Yes, because the presenters are native speakers. The other thing is some of the lessons are lovely.
7	To what extent are televised activities appropriate for the English language instruction? Are they interesting enough and consistent with the teaching materials?	They are interesting.	The activities are good, but the ways they are presented are not good.	Ehhh… most of them are presented in accordance of the textbook.
8	In your opinion, what were the major strong and weak points of the terminated televised English language instruction?	As I told you, the new plasma gives 20 minutes to the classroom teacher and it covers 20 minutes. I don't think the 20 minutes are enough. It seems to me plasma is used for formality. The other thing is the new plasma covers lessons here and there. The strong sides are plasma gives us additional concepts.	Its major problem is old plasma was speedy. The other thing is it was difficult to understand the language of the plasma presenters. Its strong side is plasma presents using pictures and animations.	Ehhh…the weakness are it was very fast and the language of the presenters were difficult to understand.
9	How do you find the improved (new) plasma-based English language instruction? To what extent is it different from the terminated one?	It is good, but the time allocated is very less. I preferred the old one	The new plasma, it is not properly employed. It is fifty –fifty, half of the lesions covered by our teacher and the remaining fifty minutes are covered by plasma. … It's good, but it is not frequently transmitted.	The new plasma is not frequently broadcasted. …I think that it is relevant for most of the students, but the time is short and it is not presented regularly, so we don't know when we have the program and when we have not. The old one was delivered regularly.
10	Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?	I don't think it is employed as it is expected. … If it is possible, I suggested transmitting plasma lesson as it was before.	I don't think it is effectively used. [*Can you tell me the reasons?*] Because it does not go with the interest and ability of the students.	Even though it helps to give equal education to all students throughout the country, I think that it is not effectively practiced…. What I want to add is as a result of the interruption of the plasma TV instruction we haven't covered most of the portions in the last academic year. These portions were covered if plasma was in practiced. Thus, I recommend plasma as it has relevance for portion coverage.

Appendix I2: Teachers' Responses to Interview Items (Recorded and Transcribed)

Item No	Questions	The Responses of Interviewees			
		Teacher 1	Teacher 2	Teacher 3	Teacher 4
1	How do you see the plasma television as a pedagogical tool in a language classroom?	As far as I'm concerned, it makes the lessons more concrete. And it's very helpful to teaching language.	Well, students are benefited to develop their different skills. The presenters are foreigners, so they use native and real language. ..ahhaa.. it's useful totally.	I think it's very much helpful as it is presented in the form of visual.	Yeah…It seems very interesting, but not well organized. It's attractive. The program is disorganized…..One thing is very important. What is that thing? The program gives the teacher…[*He was laughing*] to rest.
2	Do you have any information about how the plasma-channeled English language program is planned and why it is preferred to the conventional instruction?	The planning process? ... I don't have any information. [*Were you involved during the production of the televised instruction?*] I didn't involve during production, but during the process of evaluation I took part. [*Do you know why plasma instruction is preferred to convectional instruction?*] Yes, I know. To make the lessons concrete. And to transfer and convey different language skills through the technology.	No, I don't have. [*Can you tell me why plasma is preferred to conventional instruction?*] May be for the uniformity. To deliver lessons uniformly to both rural and urban students. Specially the language, to deliver native like language.	I don't have….Probably it is preferred to the face-to-face instruction …the face-to-face instruction is boring.	I don't know. …They never give us any workshop. We don't know who we contact. We simply teach.
3	From your experience of English language lessons on plasma TV, what do you say about the plasma presenter's ways of delivery, your roles, and students' participation?	The presenters are very nice as far as I'm concerned. They are native speakers and they present the lessons in a very attractive way. [*May I ask you your role as a classroom teacher?*] First of all, I give students introduction. And I operate, turned on the TV. In the middle while the plasma teacher told students to do activities, I go round and assist the students. And finally, I gave them conclusions on	Well, what I appreciate from the plasma is, the 'nativeness', you can get the real language or native like language. The other is students can catch the subject matter easily. Students can catch the pronunciation. [*May I ask you your role as a classroom teacher?*] …Ok, at the beginning I simply introduce the lesson. When the plasma teacher guides me, I am wandering here and	The presenter is well prepared and delivered the lesson in good way. [*Do you think that the plasma presenter's way of delivery go with students' pace of learning?*] Yes, I think so. [*Could you tell me your roles as a classroom teacher?*] In the first place I facilitated the teaching learning process based on the plasma teacher order me. At the end, I summarize the	Well, really…I appreciate. They are dramatic…they are influential…very, very interesting. [*Let me ask you about students' participations?*] Not the majority. Those who have good background actively participate. Some students did not understand what is spoken. [*May I ask you your roles as a classroom teacher?*] As a classroom teacher, I can help them. I give the answers. I go around and help students when the

		the base of the plasma lesson. [*Do you think that students actively participate during the plasma lessons?*] It depends on the classroom. In some classroom students are actively participated whereas in some classes they find it a big difficult.	there. At the end, I recap the lessons. [*Could you comment students' participation during the plasma lessons?*] Honestly speaking most of the students don't like plasma. Because plasma is one way. So, most of the time students listen passively.	lessons. [*How do you find students' participation while they are learning via plasma?*]They are not actively participating. [*Can you tell me the reason behind?*] Not only because of plasma but also in the face-to-face, today's students are demotivated.	plasma teacher told me to do so. [*During my classroom observations, I observed that you were writing on the blackboard while the plasma teacher was presenting. Why you did that?*] You see, some students, couldn't understand what the presenter explained. I did that for the sake of students. I wrote unfamiliar words, expressions, and so on.
4	Could you please tell me any supportive services you were provided with when you taught English via plasma TV?	Yes, I can. For example, this is the newly published [text] book. The plasma is based on this one. I appreciate the contents. ..I don't think that students are provided with other reference materials.	If I understand your question, they are very important, students' text, the other books and other supportive materials ahead. But we don't have plasma manual and others which support the televised lesson. In the past we had, but now we don't have. We have the book and the program.	They are available in my school.	We don't have that much…
5	Some people say that the televised instruction is relevant to improving the students' English language abilities. How do you see this?	Yes…yes. I also support this idea. Because, as I have told you, it makes the lesson more concrete. It introduces students with quality education. Yes, it helps students to develop students' different language skills.	Yeah, as I said it is relevant to improve students' language skills. But our students prefer to learn grammar and other things for their examination. …As I said, it's good, but it's not as such successful.	Ehhh… in fact, it has relevant. .. yeah… it can help. It supports the students.	Of course, it's relevant. Especially I appreciate the plasma teachers in the previous plasma lessons. They help the students to develop their English language skills.
6	In your opinion, what were the major problems concerning the terminated televised English language instruction?	During the previous plasma instruction, the pace of the presenter was very fast, students couldn't cop up with this. That was the main problem. The time allocated to perform different activities was not sufficient at that time.	The former one didn't give enough time for teachers. It was also very fast. The presenter gave time for the students to do activities, but it was not sufficient. The other thing may be the method. The classroom teacher function was just to open the plasma.	Ehhh…the plasma is good but the problem is with the students. [*Could you comment of the activities presented on the plasma screen?*] They are good. [*How do you find the pace of the presenter?*] It's good for preparatory students.	The old one?...According to my opinion, it was very, very fast. Sometime very limited time was given. Some of the lessons were difficult to comprehend.
7	How do you find the improved (new)	It's very interesting, but it lacks clarity of the image. There might be some	The new one, the new one is good. There is time for teachers.	It's interesting. [*Do you think that the plasma*	The new plasma TV instruction….ehhh.... The

	plasma-based English language instruction? To what extent is it different from the terminated one?	transmission problems. With respect to contents and contents, it is good. …Previously, there was not enough time allocation for activities, now sufficient time is allocated. When come to the pace, previously the presenters were speedy, but now the speed is improved. If you see the grade 11 English plasma lessons, it's very comfortable to the students to listen.	The time given for presentation is relatively good. Ehhh…not only the plasma but also the teacher has part. The problem is it's mixed up; we couldn't go with the program. We don't have regular plasma program.	*instruction convenient teaching English language?*] Yes…	presentation is good, but the transmission is very less. Grade 11 is good. The way they present is nice. But the transmission is very limited.
8	Do you think that you have confidence and competence to use the plasma-channeled instruction in your English language lessons?	I think so. Because I know the lesson and I make preparations… The problem that we face in these days is that we didn't receive the plasma guide. And sometimes there is a mismatch of what you expect and what is broadcasted. For example, today I entered the first lesson, I prepared for a certain lesson and what was transmitted was different from this one. It created certain confusion to me.	Yeah… I'm confident.	Me?...[*Yes*] I think so. [*Ok. Do you think that you have technical skills to use the plasma TV instruction?*] Yes, I have [*Do you think that you have the necessary pedagogical skill to use the plasma as instructional tool?*]. I don't think so.	Of course, I don't have any problem.
9	Are you interested in and willing to working with the plasma-mode of instruction? Why?	Yes, I like it. I'm very, very interested. You can watch my lessons. Because without plasma you talked 40 minutes, but when the plasma is used, it helps you very much and the qualities of the lessons are very good and they are very helpful. I'm always ready to use it.	Not at all. Because the students are not interested with the plasma TV instruction. They are not interested at all. [*Do you think that other English teachers are interested to work with the plasma?*] Here in our school not. Because the program itself is not good.	Yeah... [*Why?*] Because it assist me. [*Let me ask you about other English language teachers. Do you think that they like it?*] Oho… they hate it. Because they prefer teaching by themselves.	Of course, yes. ... [*Why?*] Ehhh…because it gives to my students about new words, new pronunciations and so on.
10	Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?	Yes, I can comment. First of all, it brings, a standardize lesson to all students. Secondly, it fills the gap of some teachers. Thirdly, it helps to improve the students listening skills. It's effective, if it is employed properly by teachers.	Well, as I said, it is good for listening skills and pronunciations. And the teachers should aware of the program. They need awareness creating trainings. They should aware of the programs that are going to be presented. After the presentation, sometimes. … The program must also be arranged, it should not be here and there.	I don't think it's as effective as it is expected.	Well….the problem is with the students and with the program.[*Do you think that its practice is effective?*] Well, to make it effective, we have to make our students how to follow the program.

Teachers' Responses to Interview Items (Recorded and Transcribed)–Continued

Item No	Questions	The Responses of Interviewees		
		Teacher 5	Teacher 6	Teacher 7
1	How do you see the plasma television as a pedagogical tool in a language classroom?	It is relevant for teaching listening skills.	It's helpful, but it has technical problems. It has also problem of time adjustment. It is not transmitted as indicated in the time table.	Let me try…I think that it has a number of irrelevant situations because students are not actively participated. Because they are watching like they watching TV programs. The teachers are not giving attention to the plasma. That's why the students are not following plasma properly. And that's why they take some measures; they break the plasma and they are non-functional. This shows how they hate it.
2	Do you have any information about how the plasma-channeled English language program is planned and why it is preferred to the conventional instruction?	Actually, I don't have information. [*Do you know why the plasma TV instruction is preferred to the conventional instruction?*] Yeah, to introduce the technology like other countries.	They told us how the program was planned. Nowadays, we don't have any information. But nothing is telling us about how to deliver it. So, we need some orientations.	At very early time, in 2003/2004, at the beginning there were teachers guides. Then after, no teachers guide… I don't know how it was planned.[*Do you know how the plasma TV instruction is preferred to conventional?*] It's for political target. They do have a sort of belief, teacher are migrating from teacher profession. They assume that the plasma can replace teachers, but never in history had the plasma replaced the teacher. They don't know this core point.
3	From your experience of English language lessons on plasma TV, what do you say about the plasma presenter's ways of delivery, your roles, and students' participation?	Yeah, sometimes it is difficult to teach some skills using plasma, specially reading skills. The old program was boring. The new one is better; actually it has also some problems. …The students are not actively participated during the transmission. [*May I ask you your roles...?]*Yeah…I tried to manage the students. I tried to get students to do activities.	Definitely, previously there were time problem. Still there is no change at all we tried to observe the new one. The other problem is students don't understand plasma. Sometime they rejected to learn through plasma. [*How do you find students' participation while they are learning by plasma?*] Well … students are almost calm. They were not actively	The teachers do not pay attention they are passive. Not only passive the teachers are negligent. [*You mean that the classroom teachers?*] Yes, even when there was electric power interruption, teachers know the way how they left out the class. ...This shows how the country losing the profession. Teachers are negligent, specially the

			participated. They were dormant. They are not motivated. [*Have you tried to motivate your students?*] Yes, but they prefer the direct way.	new ones. [*How do you find the screen teachers?*] The screen teachers, some of them are really good in their presentation, but they are quick enough. Even the teachers couldn't follow them properly. [*Did students actively participate while they are learning through the medium?*] Never! Never! Even some of them are sleeping.
4	Could you please tell me any supportive services you were provided with when you taught English via plasma TV?	Ok. What I would like to comment is that there is no availability of material in our school. Specially, we don't have plasma guide and different materials.	To tell you frankly, we don't have plasma guide. Not only now but in the previous times we don't have any plasma guide. It creates a great problem. At this moment is not, I don't wanna say anything.	We have nothing! We have nothing! ...
5	Some people say that the televised instruction is relevant to improving the students' English language abilities. How do you see this?	Surely it's correct. It helps students to promote their language skills. Specially listening skills.	Definitely. It specially helps the students to develop their pronunciation skills.	No! This is another false, sorry to say. There was a meeting in our district; I told them. One Politian said it's very much helpful to the students, I told him the reality. …Students are really passive…passive…passive. They [students] assume that they are watching movie.
6	In your opinion, what were the major problems concerning the terminated televised English language instruction?	Yeah… there were many problems. The activities presented were difficult to understand. Plasma is more applicable to teach listening and speaking skills.	In general, students are not well aware of the plasma instruction. The other thing is students couldn't cop up with the speed of the plasma presenters.	The content of the coverage is the major problem. They are simply focusing on the texts, the grammar. The grammar is nothing; it is a means of enhancing your communication…If you go to private schools, they don't have plasma, but they are successful. The students know this…I suggest the government take another action.
7	How do you find the improved (new) plasma-based English language instruction? To what extent is it different from the terminated one?	It's very difficult to comment it as it is presented infrequently. It is not presented regularly. There are many problems to implement it in our school. Students hate plasma fear of its speed. [*It is said that the speed is improved in the new plasma. Is that right?*] Yeah, it is improved, but students don't like it.	Ehhh…[*Could you compare it with the old one?*] Yeah. The transmission is less frequented. It is not regularly broadcasted. It gives room for us; sufficient time is given for teachers. …	Ehhh…We don't have the plasma guide… It's difficult for me to say more things about it…

8	Do you think that you have confidence and competence to use the plasma-channeled instruction in your English language lessons?	Yeah…Plasma creates a great confidence to me. [*How?*] You see, it assists me. It makes me competent.	As the previous, yes. But now I don't wanna say anything [*Why?*] Because it is not much used. If you are not used very much, how would you say I'm confident enough to use it?	According to the instruction of the plasma, I know nothing. But I know what to do as a teacher. We don't have any information why they installed the plasma here. They enforce us to use it here.
9	Are you interested in and willing to working with the plasma-mode of instruction? Why?	Yeah…[*Why?*] Because it helps my students to develop their speaking and listening skills. It also assets me. [*Let's talk about other English teachers. Do you think that they are interested to work with plasma?*] Oh, actually, not all of them are interested because their students preferred the face-to-face instruction.	Definitely….Because plasma has relevance to students and teachers as I told you. To students, it helps since it presents new methods and approach. To teachers, it assists them.	No. [*Can you tell me the reasons?*] … We are passive. We are standing at the corridor of the class… that is not good really. We are rather suffering. And finally the students took measures. They stopped the plasma by breaking the ropes [cables]. Then, we are teaching.
10	Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?	No…definitely. [*What I'm saying is that do you think that the plasma TV instruction is effectively practiced?*] Actually, all in all I can't say it's effective. It's 70% effective.	Oh…It is not properly implemented in our school. I can say. It is not much effective, but it has been used. [*Can you tell me the reasons?*] The problem is technical problem. Teachers also assumed that students cannot understand the plasma lessons, so they preferred the usual method, not plasma.	The plasma… specially the clip area in the conversation has some merits. If the teachers know the clip as a conversation, it has some advantages. It can be considered as additional support material. ..Otherwise I don't think it's effective.

Teachers' Responses to Interview Items (Recorded and Transcribed)–Continued

Item No	Questions	The Responses of Interviewees		
		Teacher 8	Teacher 9	Teacher10
1.	How do you see the plasma television as a pedagogical tool in a language classroom?	Well, it's a good tool. Because it updates our approaches. It presents accurate pronunciation. It fills some gaps that teachers can't do.	It is good, it makes students competitive and makes teachers to use different methods.	I think that plasma teachers are native speakers. Plasma gives students to learn the right pronunciation. So, it has relevance to students in this aspect.
2	Do you have any information about how the plasma-channeled English language program is planned and why it is preferred to the conventional instruction?	Not all… [*Could you tell me the reasons why the government launched plasma TV instruction?]*Ehhh… I don't know.	I don't have.	I'm not sure, but what I know is to give lessons with a variety teacher, to apply the technology. To make the teaching learning interesting. How it was planned?… it's difficult…I have no idea. …
3	From your experience of English language lessons on plasma TV, what do you say about the plasma presenter's ways of delivery, your roles, and students' participation?	Their speed miss matched with students' speed. Very few minutes were given for the teachers. [*How do you find students' participation?*] They were not actively participated. [*May I ask you your role as a classroom teacher?*] Alright, I sit at a back seat and observe what is going on. Of course, I don't mean that I don't do anything I do. I am not giving a chance talking anything.	It was very fast, but it is improved.	When I see the old one, there was a shortage of time. It did not enough time to students and teachers. The way of delivery is interesting, but the time is not enough. [*How do you find students' participation?*] They don't like it. They are passive. They don't understand it. Even they asked me to close the plasma and to teach them without plasma.
4	Could you please tell me any supportive services you were provided with when you taught English via plasma TV?	To your surprise, in this year, plasma has come again, but we have the textbook lately. They arrived very, very late. Even when we begun with the first semester we were confused. We were not given any direction. We were not provided the plasma guide, the time table and others. We were not given any orientation how it is different from the old one. They [the broadcasters] aired the plasma	We haven't provided with any support. Even, no one monitors you whether you use it or not.	The only thing they gave was the guide. Even they didn't gave us any training, how to operate. You see, most of teachers have a problem of that.

		lessons in September. We were teaching using the old books since the newly published books were not arrived. ...so messy. Even in this semester, we haven't properly had the new plasma guide and time table.		
5	Some people say that the televised instruction is relevant to improving the students' English language abilities. How do you see this?	Well…it helps, but things became worse time to time. Now, only English language teachers are talking in English in the class. Every subject teacher is communicating in Amharic. Students are confused if you speak English continuously. This is the national problem. Plasma covers the whole lesson in English, but most students are confused unless you explain them in Amharic.	It's right, but students do not like it.	I agree…because plasma is the starting point. They will have experience of how natives speak the language. They [students] will apply it later on. And the way they [plasma presenters] present is good. For example, today they see something on the screen. They see somebody was working. They were following the lesson attentively. They learn something from plasma.
6	In your opinion, what were the major problems concerning the terminated televised English language instruction?	The first place, we teachers were not consulted as far as I know. We are stakeholders. This is one. The other thing is ...ehhee…the students' level of competency is not taking into consideration. ...ehhee…even the materials are not available.	The first problem was the speed of the presenters. Also the negative attitude of students and teachers.	As I see, the first thing is the way we manage the plasma. And the level problem. Students don't understand what is presented. In case of teachers, teachers thought that, even I thought that I'm not important here; I thought that plasma is a teacher. The other is we don't have a chance to watch it repeatedly.
7	How do you find the improved (new) plasma-based English language instruction? To what extent is it different from the terminated one?	Ehheee. …well….it seems good, but it's not properly implemented. The frequency is very low. This also confused us.	It's good. It helps students to access equal education. The new one is modified. Equal time is given to the classroom teacher and the plasma. Enough time is given.	Yeah, I have some experience of the two… the basic thing that I observer from the new is that the time. We are given enough time. We can also conclude and revise what they have learnt. The pictures are like Ethiopian in the new plasma. When [we] saw the old one, the pictures that were displayed were not

				Ethiopian, they were I think South African. Even today I saw, the film an Ethiopian films that student eager to see. …But I can't say there are much different, the new and the old plasma.
8	Do you think that you have confidence and competence to use the plasma-channeled instruction in your English language lessons?	Ehheee….[*What I'm asking you is that do you think that you have the necessary technical or pedagogical skill to use the technology in your language classes?*]Not at all, we have a problem of that. Ok, even most teachers have not the necessary skill how to operate the plasma. May be 'on' 'off' is the elementary. Apart from that, to select or search whatever programs, they have a problem. Students are better than them.	Yes.	Well, what I realized today is it is nice. It has enough time. It raises interesting issue. And also saves my energy, so nice. So I think that I have competency to use it.
9	Are you interested in and willing to working with the plasma-mode of instruction? Why?	Well. …ehheee… the classroom teachers satisfy the students more than the plasma teacher. …in case of the pronunciation the plasma teacher is preferable. The screen has a lot of teaching aids. [*Do you think that English teachers are interested to work with plasma?*] Yes, but not all.	Yes, of course. But to some extent. The problem is students forced me to teach them face-to-face. The majority of them do not like to learn using the plasma.	Yes, yes. [*Let's talk about other. Do you think that other English language teachers are interested to work with plasma?*] For English, yes. Teachers told me that it's good.
10	Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?	Well….to put it in black and white, as I told you we haven't used this plasma with no interruption. …teachers are not a little bit comfortable with plasma. Because of this, they haven't employed is fully. The other thing is students are exam-centered. They want you to switch off the plasma and prepare them for their entrance examination. …To make it effective, we teacher have to be provided with the necessary input. The other thing is the level of our students has to be in consideration. Otherwise it's a waste of time and money. ...There are also many messy things, as I told you, these must be improved.	Over all, it not effective. The problem is administration. The broadcasters do not also provide us the necessary support. We don't know the lesson they are going to let on air.	My first comment is the schools, not the students, should have the CD. To show what the students missed. …The other thing is training should be given teachers and students about how important is plasma. ..There are problems of attitude. This must be improved. Most teachers, not English teachers, don't believe as plasma is useful. So, trainings on the purpose of plasma and how to use it should be given. If these things are done, the plasma will be effective.

Appendix 13: School Directors' Response to Interviews Items (Recorded and Transcribed)

Item No	Questions	The Responses of Interviewees			
		Director 1	Director 2	Director 3	Director 4
1.	Could you please explain the basic objectives of the plasma TV instruction in Ethiopia?	Ok, the main objective is to give equivalent education to all over the country. At the same time in order to get the same practice. The same English lessons and mathematics lessons.	The objective of plasma TV instruction is to teach all students throughout the country using the same lesson by the same teacher to help the students for the shortage of qualified teachers.	Ok, I think, the basic objective of plasma TV instruction is to give the same content, methodology, and technique to students.	The main objective is to assist teachers and students in their teaching and learning process.
2	Do you have any information about why the plasma program is preferred to the conventional (traditional) instruction?	Ok, face-to-face instruction has problems. Different teachers give different concepts. Plasma assists these teachers to give similar content to the students.	Ehhh…Yes, there was a great shortage of qualified teachers in some regions in country. It was preferred due to this.	Ok, I think the government selected this plasma instruction to meet the Millennium Development Goal as all students should get the same knowledge.	Sorry, I don't have.
3	Can you tell me how and when you communicate the plasma TV relevance to your staff?	Ok, most of our staff members use the plasma TV instruction, we don't have problem. Some of them don't want to use it. We communicate them the relevance of plasma during our meetings.	Ehhh…Yes, we discuss with them. They give information that the plasma TV instruction helps them a lot to teach their lessons. It guides their students.	Yes, we have regular meeting. So, at that time we are talking about the plasma instruction. So, we have shared so many ideas regarding the plasma lessons. We discuss the importance of the instruction and the problems encountered as well.	Yeah, we always discuss. [*Could you tell me the comments your staff community raised regarding the medium?*] They commented that there is a shortage of time to do activities. The other one is sometimes topics that do not go with the students' text was presented.
4	Can you comment, in detail, about the availability of supportive materials for the televised English language	Well, we have supportive material for the English language instruction. We don't have language laboratory. [*Do you have audio visual material, for instance?*] No, we don't have.	Ehhh…Yes, we have teachers' guide and plasma lessons. [*Do students and teachers have self access center to watch plasma lessons?]* No. Additional materials are necessary to make	We have sufficient books, reference books. We have a club which supports us books. But we do not have plasma guide of the new plasma instruction. We have	We have some plasma guide by CD. [*Have teachers and students used that?*] Some of them, yes.

	instruction in your school?	[*How about plasma guide for your teacher?*] In this year, no, but we have the timetable.	plasma lessons effective, but we don't have.	also Internet access center for teachers. So, teachers can develop additional activities which support plasma lessons.	
5	If you were asked to give a summary of the supervisory and inspection services with reference to the televised ELT in your school, what would be the main points you mention?	Well, supervisors came to our school in order to evaluate us, but they didn't have enough knowledge about plasma. [*You mean that your school was not provided with the necessary supportive services from supervisors regarding to plasma?*] Yes, they don't know it. Teachers are better than them.	Ehhh…No. [*Do the supervisors from the sub-city or the region give you the necessary support?*] Not that much. [*How about you as a director?*] We sometimes supervise whether or not the plasma program is going on.	O...k,the supervisors from the sub-city supervise us. But they have no a special role in relation to plasma. They don't have knowledge more than our teachers and technicians. They did not give us any support regarding plasma. We have inbuilt supervision and we supervised the implementation of plasma.	No, supervisors did not give us supportive services with regard to plasma.
6	In your opinion, what are the most important beliefs held by your school community concerning the plasma-based instruction?	Ok most of them have positive attitude towards plasma. Some of them have also negative attitude. Specially, those who have not prepared well don't like plasma.	Ehhh… At the starting time the students hated it because it was difficult for them to understand. Later on they like it. Now another program is set down. This program, according to teachers, is not convenient as it was before. This is because they way how the broadcasters programming is not good. They are complaining about it. [*What are their complaints?]* They complained that the plasma lesson will be given a day or a period of 20 minutes and it will be discontinued for two or three periods and it will be continue after that. And this discontinuity doesn't make them to work with plasma.	Ok, my opinion is that 90% of our school community has positive attitude towards plasma, but in some cases depending on political situations, the curriculum and any reason some people have negative attitude towards plasma, those 10%. [*Do you mean teachers?*] Yes, teachers. [*How about students?*] Students also have positive attitude.	Most of the students like the plasma TV instruction, but some of them not. [*Why some of them hate it?*] They said that it is difficult to understand the plasma lessons. [*Les's talk about English language teachers. Do you think that they like it?*] Yes, they like it. Especially language teachers like it since it is helpful to promote students' English language skills.
7	Do you think that English language teachers have competence to working with the plasma-mode of instruction? Why?	Yes, they have competence. [*You mean that they have competence to use the technology?*] Yes.	According to our school, yeah.	Ok, when we are talking about English language teachers, there are some problems. Especially the new comer teachers. They afraid of the plasma. They don't have confidence. For	Yeah, most of them have confidence and competence. They told us. [*Do you think that they have technological skill to use the plasma TV?*] Yes, of course.

				example, they fear that if they committed mistakes the plasma exposes them. We plan to minimize these frustrations in our teachers' professional development programs.	
8	In your opinion, what were the major problems concerning the terminated televised English language instruction?	Sometimes there are program mistake. They don't go with the text books in the English part. Nowadays, the problem is settled.	Ehhh… The time was the major problem.	Ehhh…[*Can you recall the major problems of the terminated plasma TV program?*] It had some limitations. Some plasma lessons were not proportional the text book lessons.	The major problem was the time distribution.
9	How do you find the improved (new) plasma-based English language instruction? To what extent is it different from the terminated one?	Well, in our school, it is equivalent to students' capacity as it is a preparatory school. But it's difficult for the first cycle secondary school. [*…What I'm saying is new plasma lessons have been delivered in this year. Do you think that improvements were made?*] Ehhh...[*Do you know the old one?*] Yes, I know. [*Could you compare the old one with the new one?*] The old one was not clear. Some of the examples were not clear. The new one is clear. Not only are the plasma lessons but also the new text book is clear.	Ehhh… According to the teachers and the students, the old plasma lesson did not give sufficient time for them. Now the time is improved 20 minutes for a teacher and the plasma. But these 20 minutes are not presented in a regular way.	Ok, the new plasma TV instruction is better. It focuses on the practical teaching-learning process. However, there are some problems to implement it in our school. We have problems like number of transmission, the transmission are not sufficient. And it has some lack of proportionality with the topics.	It's good, but the transmission time and frequency is not sufficient. You see, we have many sections and few teachers. The new plasma is broadcasted with a limited time. For example, they transmit English lessons for grade 12 two times or one time per month. This is also broadcasted with a limited frequency. So, some sections miss the program.
10	Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?	In my opinion, it is better to adjust, the channels. That is, as we have a shortage of numbers, the channels must be increased. The number of the transmission frequency is less, we couldn't implement it effectively. So, we need the broadcasters to improve this.	Ehhh…Ehhh…[*You see, I'm asking you your opinion. Some people say that it is effective others say that it is not effective?*] Ehhh… I think it's effective. Ehhh…It's effective.	Ok, when come to its effectiveness, it's difficult to talk about it. Based on our students they like it. So it can be said it is effective.	Yeah, it's effective. [Do *you think that it's effectively practiced in your school?*] Yeah.

School Directors' Responses to Interview Items (Recorded and Transcribed)–Continued

Item No	Questions	The Responses of Interviewees		
		Director 5	Director 6	Director 7
1.	Could you please explain the basic objectives of the plasma TV instruction in Ethiopia?	It's to assist the capability of teachers, and to get equivalent teachers.	Alright, the objective is not to differentiate the whole Ethiopian students.	It is to expose students and teachers to the modern technology. And it is used to minimize teaching materials problem.
2	Do you have any information about why the plasma program is preferred to the conventional (traditional) instruction?	Because to support the students with the technology.	That is because there are shortage of teachers and materials. In plasma, there are interesting demonstration activities which the face-to-face instruction lacks. Therefore, plasma is preferred to face-to-face instruction.	It is to minimize the limitation of the conventional instruction, in general.
3	Can you tell me how and when you communicate the plasma TV relevance to your staff?	We haven't discussed with the teachers and students since they know it very well. We communicated with department heads about the implementation of the program.	Of course, we have discussed the relevance of it during our meetings. Most teachers preferred to teach in face-to-face. I asked their reasons. They said that plasma lessons broadcasted not frequently in this year. We count two or three plasma lessons in one month for a subject. We have been provided with the timetable, but it is not clear which content is plasma and which is not.	We communicated during the school meeting, with the department heads, and sometimes with students.
4	Can you comment, in detail, about the availability of supportive materials for the televised English language instruction in your school?	We haven't had specific supportive materials for the televised instruction, but we have some reference materials and textbooks.	Ehhh… nothing supporting materials, but only text books.	We have limitation of materials in our school. …We haven't had any materials which support the plasma lessons. Of course, we proved the department with the plasma guide and the program. Students are now provided with the new book.
5	If you were asked to give a summary of the supervisory and inspection services with reference to the televised ELT in your school, what would be the main points you mention?	We haven't had a specific supervision for the plasma TV instruction. Supervisors from sub-cities visited the overall teaching learning process.	Yes, all are coming from Educational Bureau, and from the sub-cities, but they don't know which plasma is and which not plasma is. They were asking as other questions not about plasma.	Frankly speaking, the supervision evaluation form doesn't deal with plasma. In fact, once experts from the transmission area came and asked us about our problems regarding plasma.

6	In your opinion, what are the most important beliefs held by your school community concerning the plasma-based instruction?	There are different attitudes held in the school. Some of the teachers and students like it whereas some of them are not like it. Slow learners and newly employed teachers are not will to learn by plasma.	Community? [*It means your teachers, students and other staff members.*] They have positive attitude. The problem is with the program. Some are asking me how they can adjust the program.	There was resistance to use plasma when it was introduced. Gradually, it was minimized. But now, the resistance came again.
7	Do you think that English language teachers have competence to working with the plasma-mode of instruction? Why?	It's difficult to say all of them have competence to work with plasma. I think that most of them have it.	Alright, some English language teachers don't have confidence, but most of them have competence to use the plasma TV instruction. Even some English teachers explained in Amharic.	I think so.
8	In your opinion, what were the major problems concerning the terminated televised English language instruction?	Our problem is technical problem. Some of the sections are not properly functioning due to connection problem. It is said that the problem is with the cable. We are tried to solve the problem with the Education Bureau.	The problem is English, language problem. The program [timetable] is also the other problem. Teachers have also technical problems.	The major problem was the negative attitude of teachers and students to use the technology. The other was the language of the presenters. In addition, the way the contents were produced has problem.
9	How do you find the improved (new) plasma-based English language instruction? To what extent is it different from the terminated one?	It's problematic. You see, our teachers are suffering from getting the right program. We obliged them to use it, but when they opened it, they couldn't get the right lesson.	Ehhh… most teachers are not will to open the plasma instruction due to the program.	They told us that it is fifty-fifty. It gives 20 minutes for the classroom teacher and 20 minutes for the plasma teacher. [*Does your school community like it?*] They don't hate it, but the way programs broadcasted is not good since they are not regular.
10	Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?	For this year it is not effectively employed because of the problems I told you. The books came late, channels are disorganized. However, we tried to use it.	Of course, it is nice. [*Do you think that it is effectively implemented in your school?*] Y…e…s…, it is effective.	I don't think it is properly implemented. It is because of the infrequency of the programs. And as I told you the negative attitude of teachers and students.

School Directors' Responses to Interview Items (Recorded and Transcribed)–Continued

Item No	Questions	The Responses of Interviewees		
		Director 8	Director 9	Director 10
1.	Could you please explain the basic objectives of the plasma TV instruction in Ethiopia?	It is to assist the teaching learning process. It assists teachers and students.	I think that to deliver similar lessons to all students and to offer equal educational opportunity to all.	One is to have similar knowledge to students all over the country. The other is in order to develop the students' listening skills.
2	Do you have any information about why the plasma program is preferred to the conventional (traditional) instruction?	It's taken as a better means to deliver lessons than face-to-face instructions.	As I told you, to teach similar lessons to all students across the country.	Well…I'm not sure to say this is the reason and that is not the reason. All the policies are designed from the upper officials.
3	Can you tell me how and when you communicate the plasma TV relevance to your staff?	Since its starting time so many discussions were made with teachers and students. There were some resistances when it was started. Now every student and teacher understands the relevance of plasma instruction.	Whenever we have general staff meeting, we discussed how to use the plasma instruction. [*How do you communicate with the students about the relevance of the instruction?*] We haven't communicated with them, but we communicate with their teachers.	Yeah…most of the time we discuss with the teachers. Especially this year we have got the problem. The problem is the program itself is not well organized. They simply downloaded it on the Internet. … So we have a meeting with the students and teachers about these problems. .. The students are also complaining about the language of the plasma presenters. They don't like it. Sometimes they disconnected the network.
4	Can you comment, in detail, about the availability of supportive materials for the televised English language instruction in your school?	Materials? [*Are you provided with the necessary support to implement the program?*]We have the new books.[*Do you think that students and teachers are provided with supportive materials such as plasma guide, reference books, etc?*] I think that there are enough books in our library even though they are not related to the plasma. They give us technical support.	We have been provided with supportive materials like plasma manuals, and schedules. Teachers, however, were not seen properly used them properly. For instance, this year, I photocopied the plasma guide and the timetable and distributed to teachers, even monitors. Teachers, however, are reluctant to use plasma.	We have a plasma technician and this focal person give teachers the necessary support. We hired him with our budget.…

5	If you were asked to give a summary of the supervisory and inspection services with reference to the televised ELT in your school, what would be the main points you mention?	No supervisory activities have been conducted with respect of plasma. However, in this year, once officials from City Government of Education Bureau came and told us about the new program.	We haven't given supervision services particularly related to the plasma lessons. [*Did the supervisors from sub-cities or the region give supervisory services regarding plasma?*] No.	Ehhh... we haven't been provided with any supervisory services in respect to the implementation of televised instruction. ...There is something I want to add: some focal persons from City Government of Addis Ababa Education Bureau came here and gave us some ideas. The only question that they asked us was 'Is there any problem about the transmission?' We don't have problems related to transmission. We need some training and some ideas about the practice of the program. We need manuals and workshops for the teachers.
6	In your opinion, what are the most important beliefs held by your school community concerning the plasma-based instruction?	Ehhh...Ehhh... I think that most teachers are using the plasma TV instruction. Most of them have positive attitude towards plasma.	Teachers and students have negative attitude towards plasma. Student, for example, disconnected signals, stole the connectors, disconnected electric lines. Teachers also preferred teaching in the conventional instruction. They often complained as there were no transmissions and hurry to lock the screen and continued teaching in the usual method.	According to the students, they do not listen the program very correctly. Teachers are also not accustomed this type of teaching. The only thing they know is chalk and talk.
7	Do you think that English language teachers have competence to working with the plasma-mode of instruction? Why?	Yeah, most of them are competent enough to use the plasma TV instruction. [*Don't you think that they have technical problem to use the plasma?*] No, problem. They don't have problem on that. Students also, those who are achieving good like it. Some students are also not interested with the plasma instruction.	I don't think they have competency to use the plasma that is why instead of using plasma they used the traditional way of teaching.	I don't think so. [*May I ask you the reasons?*] Teachers do not have any background about how to teach using plasma. They were not trained the use of the technology in their trainings. They only know talk and chalk.
8	In your opinion, what were the major problems concerning the terminated televised English language instruction?	Yes, then it was fast, but now it is improved. Every time was taken by the plasma, no time for the teacher. The contact to the teacher, with the teacher, was less, but now equal time is given to teachers and plasma.	The first one was students and teachers attitude towards plasma. The other was the plasma way of delivery, it was not interactive.	One is, as I told you, the teachers are not accustomed to teach using the technology. The other thing is not the problem of the teachers. The problem is towards the students. They do not have

				the talent of listening since most of plasma teachers are native speakers.
9	How do you find the improved (new) plasma-based English language instruction? To what extent is it different from the terminated one?	As I have already told you, the time and the speed are improved.	It is good. It gives time to teachers; it is difficult to practice since the transmission is not regular. It is difficult to know the content to be transmitted.	Ok, the only change that they made is they send the program through the Internet. In the second semester they gave us some instructions and some programs, the second semester programs.[*Can you tell me to what extent the new plasma lessons is different from the old one?*] I haven't seen any difference.
10	Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?	If it is used properly, it's very, very, very nice. [*Do you think that it's effectively practiced?*] Ehhh…. I don't think so. Especially the new one is not properly implemented.	I don't think. Teachers and students resisted to use the plasma. Even though we often encouraged and supported them to use it, they haven't interested to work with plasma. We are tired of getting teachers and students to use it. If you can, please tell the higher officials about this.	There are some things that should be done by the higher government officials to make it effective. One teachers must be given some orientation like how to use the program, how to teach using plasma. Awareness creation trainings should also be given to students. They should also be told how to learn from plasma.

Appendix I4: Experts' Responses to Interview Items (Recorded and Transcribed)

Item No	Questions	The Responses of Interviewees		
		Expert 1	**Expert 2**	**Expert 3**
1	Could you please explain the basic objectives and rational of the televised instruction in Ethiopia?	*[First of all, I thank you very much for your willingness to be interviewed. Could you...?]* The plasma TV instruction has many objectives. Let me tell you just few of them. Ehhh…You know, in most of our schools there are problem of textbooks, some untrained teachers, library equipments. To fill these gaps, educational technologies are very relevant. Based on these, the government started to plan and install instructional technologies here as a center in the federal level and receivers in regional level, particularly the plasma satellite television. Wherever there was no light, the federal government at the beginning bought generators for a number of schools. Now the regions have a budget for it.	*[First of all, I thank you very much for your willingness to be interviewed. As I have already told you I am conducting a research on the plasma-channeled English language instruction. I hope you will give me relevant responses to my questions].* Thank you. The main objectives of the satellite television program are first to give quality education. Second to access education to all nations. Third to provide equal education opportunities to both urban and rural area children. For these and other objectives the government launched the technology-based instruction throughout the country.	*[First of all, I thank you very much for your willingness to be interviewed. Could you....]* Ok…Right..Ehhhe…Actually when we design the English satellite television program, to solve students' problems of speaking and listening skills. We gave more emphases these two skills. But when we designed the specification we accommodated the whole language skills. As we have lack of skilled teachers, the Ministry of Education preferred to disseminate satellite television program for all secondary schools throughout the country. The basic objective is to access students' English lessons by native speakers in order to develop their speaking and listening skills.
2	Would you please tell me how the plasma program was planned and why it is preferred to the conventional (traditional) instruction?	Ok, I was a committee member at a federal level when the program was planned and now I'm coordinating [it]. You know, we planned, developed and broadcasted television program-territory television program- here as a center to all secondary schools in Ethiopia. But does not reach whenever there is a mountain the television may not reach there as it is territorial. There was a problem of television broadcast as school level. Then to solve that problem, not only the television but also the radio, the government was looking for another technology. Finally, the Intel Sat approached	As stated in the 1994's education policy, the main aim of the government is to provide nations quality education. To meet this objective, the government sees ICT as a means to give quality education. Therefore, a task force was established in order to plan and develop ICT based education. The task force had two parts: the technique group and the program development group. Then, the Ministry of Education in collaboration the then Ministry of Capacity Building planned the plasma program in 2003/2004. At that time, the technique group took active role in facilitating the purchase of plasma television sets and installation and the	Actually when we planned the program, first, the experts from the ICDR and our Center sat together and study how to produce satellite programs. Then, they came across…ehhhh…what we call it…it's not the students' text…ehhh… based on the syllabus they tried to selected which part of the lessons should be treated in the satellite television program. They selected and prepared as per the specification. There were no

		our government and presented a proposal and then the proposal was accepted and the plasma program is now under use. …We were using the old type of television and then having seen students' problems we try to find a TV from the Internet which looks like a blackboard. Then, we got that from Japan [*you mean the plasma screen?*] The plasma screen. Then we advertised and we bought this television type in the name of 'Plasma' at that time now a flat screen. The plan was to solve the problem at school level and to support the teachers.	program development group took part in the production of satellite TV programs. Then, the program launched in 2004/2005 academic year after programs were produced and plasma TV screens were installed. [*Have you participated teachers, directors, students or other bodies during the planning?*] Actually, the program was planned by Ministry of Education in collaboration with Capacity Building. However, later we involved officers from education bureaus. And before the program was putting into practice, we give training to three persons from each school of the country about its implementation. [*May I ask you where the programs were produced? Were they produced here in Ethiopia?*] Its production has two parts; that is, content specifications were carried out within the country by curriculum specialists and ICT experts, and then bid was advertised for production. And a company from South Africa called 'Memar TV' won the bid and this company wrote the scripts and the scripts were evaluated by experts in the country. After approval, programs were produced and recorded in South Africa. After that recorded programs were evaluated and approved by ICT experts here in the Center. Then, approved lessons were sent to us for transmission. [*How about the new plasma lessons? Were they produced in South Africa, too?*] They were produced in Canada. Though the South African company computed to produce the new ones, a company from Canada known as Sells Communication won the bid from the six companies that were computed.	textbooks and teachers' guides; the experts prepared the specification on the base of syllabus only. And finally, when we tried to produce the program, we could not produce it here in the Center because of lack of technological equipment. So, we were forced to outsource the production to the other company. [*Let me ask you one question, did you involve teachers and/or students while you were producing the program?*] Yes. But not the students, around 130 teachers from all over the country were gathered and we discussed with them the type of the programs that going to be televised. [*May I ask you why the plasma TV is preferred to conventional instruction?*] As I have already told you, to present lessons with native speakers.
3	May I ask you if any pilot testing and/or researches were conducted before the implementation of the plasma-mode of	We were transmitting territorial television instruction; therefore, no need of pilot testing. So, we didn't do that. [*Well, have you ever conducted researches before you launch the program?*] Yes, we have conducted a study.	We conducted pilot test before both the terminated and the new plasma lessons were implemented. Before the commencement of the first plasma instruction, programs were broadcasted to schools. Before the new one	Yes, actually we did pilot testing. Of course, I was not here when the pilot was conducted, but I read as the pilot test was conducted. [*Have you carried out any need*

	instruction?	We found out that we succeeded.	was utilized, sample lessons were transmitted in May 2011 to schools and feedbacks were received from teachers and students. Then, the program started to transmit all over the country on September 26, 2011.	*assessment survey before you produce the program?*] Nothing.
4	Could you elaborate the linkage process between the broadcasting center and the reception ends?	Yes, we are communicating with the curriculum people here at the federal level. We are working together. And then after getting information from the curriculum department, we select contents which are appropriate to the schools with the cooperation of the teachers or from the school community. Then after, we start to advertise for bid. Then, organizations that have the capacity to develop television programs produce the program. To tell you our experience, at the beginning people/organizations from South Africa came and won the bid and develop 1978 programs, next now from Canada[*You mean the improved one has been produced in Canada?*] Yes, based on the evaluation. Now we found it interesting because it has animations, simulations, pictures and demonstrations.	The transmission is broadcasted using 12 channels. We transmit them in collaboration with Ethio- telecom. Each school has receivers. If lessons are not properly broadcasted or if there is channel malfunctions, schools call us for help and we try to solve the problems. We, as broadcasters, Ethio-telecom and schools work together for the implementation of the programs.	Ehee…Ok …actually, when produce the program, before the broadcasting, schedules/time tables are disseminated through satellite television program. Teachers, directors or all educators access this program before hand. On the base of this program, they can access this program anytime. And we will try to check how far these schools attain or follow these programs properly. Experts from our Center move to every schools and evaluate the program how the students and the school follow these programs properly. We checked it.
5	What were the arrangements for using plasma TV program in teaching English language?	What kind of arrangements? [*Arrangements for schools to use the plasma, such as supportive material, trainings, etc.*] Yes, we gave them training. We gave them plasma guide, and after the training we also give them technical support if they have no technicians. Everything… whenever they need our assistant, we give them support.	We give two arrangements or supports. The first one is technical support; we give training for technicians or prepare technical specification when regions purchase plasma screens. And the other one is regarding programs; we give training about the practice of programs.	Ehee…the arrangements… [*What arrangements were made for teachers and students to use the plasma TV instruction? Were students and teachers, for example, provided with supportive materials, such as plasma guide or materials?*] Ahaaa…Yeah. We gave them two consecutive trainings, training for trainers. We gave them training about the English language and other subjects before programs were transmitted. We told them how the program is conducted, how the timetables can be used and others.

6	Can you please tell me about the plasma-based instruction supervision and inspections in schools?	Yes, our experts sometimes went to schools and inspected the practices of the programs.	Normally, we give supportive services. We also inspect to what extent the programs are implemented at school level. In doing so, our experts visit sample schools and inspect how it is utilized.	Actually, I have no idea.[*Have you ever inspected whether or not the programs are practiced as require?*] Yes, I have already told you.
7	Do you think that practitioners are provided with the necessary supports to utilize the program effectively?	Yes, yes… but it's very difficult to train and give support all directors and teachers. We selected representatives from the region and we gave training. We gave a kind of training of trainers. We did that. And sometimes we gave trainings to the regions, zones and *woredas*.	We believed that we contribute our part. As I told you, we tried to give training to trainers. We strived to give any technical supports we are required to do so. We also provided the soft copy of the plasma guide, plasma scripts and students' manual to every school. However, it is difficult for us to judge whether or not practitioners were provided with the necessary assistance from their educational experts at regional, zonal or *woreda* level.	No, I don't think [*Could you tell me the reasons?*] As we have discussed earlier, in terms of teachers, not all of them but some of them, have a problem of English language since English is our second language. They have a problem. They are frustrated to deliver their knowledge to the students using the target language. In addition of this, there are also lots of problems in school environment. There are no enough libraries to refer to books. There is no internet service. There is no perception training. As an expert, the Ministry of Education has a part a problem of reports whether it is effective or not. Therefore, I don't think it is effective.
8	What do you think are the contributions of the telecasted instruction to students' English language learning?	Look, it makes the students knowledgeable as they are supported by television program. You see, when you go to schools, you will get the oldest ones [books]. Now we are broadcasting the recent ones. The latest information reaches to the school.	Yes, we think that it contributes a lot for students' learning. The plasma program gives the students indispensable supports to the students; it gives quality education. It also minimizes the gap between education access to urban and rural areas. It has contribution with regard to portions coverage.	I think, when students are attending the program attentively, they may have a chance to learn more or many things from the plasma.
9	To what extent do you think that it is relevant to improving students' English language abilities?	Yes, it helps to the students to improve their English language skills. You see, even teachers can improve their language if they have the problem since some of our presenters are native speakers.	Yes, plasma motivates students to attend their lessons attentively. Specially, it helps students to promote their language skills. Students and teachers are a wi tness for this.	Because this program was produced including the whole skills, they can write, they can speak, they can listen even they can read so that they have a chance to learn more from this program as I think.

10	Do you think that the plasma-channeled instruction has an effect on teachers' professional competence? If yes, how? If no, why?	We didn't evaluate that one [*Sorry, I'm asking you your opinion?*] Sure it has because we learn everywhere even you learn here. So, from the new thing we get knowledge. The teachers are supported by the technology. It also makes them knowledgeable. Teachers can also update their knowledge from the new source.	Right! It has a contribution for teachers' professional developments. Plasma helps teachers how to deliver lessons using various methods. It also helps them to promote their content knowledge and language skills. It helps teachers to update their knowledge as well.	Ehhh…a positive effect? [*Probably it can be a positive or a negative*]. It has positive effect. Since the presenters are native teachers, teachers' may develop their listening skills like the students. Actually, it has the positive effect.
11	Do you believe that English language teachers have competence to working with the plasma-mode of instruction? Why?	I'm afraid some of them don't have confidence. They have lack of training. They don't have in-depth knowledge of technology based instructions- the plasma television and any electronics media. There is also a kind of frustration to use technology in case of some teachers.	Ehhh…[*Do you personally think that teachers have the necessary skills or knowledge to teach using plasma?*] You see, in ICT based instruction, the classroom is a facilitator. But in our case teachers fear that the technology replaces them. This is an attitudinal problem. There are teachers who interfered the plasma; some teachers are teaching while the plasma lessons are underway.	Ehhh… Of course, I would like to say yes or no. Ehhh….I have no experience to know how they teach using the plasma. [*Do you personally think that English language teachers are competent enough to use the technology?*]Sorry, I don't have idea about it[*Do you think that teachers have technological skill, for example?*] Sorry, I don't have idea.
12	In your opinion, what are the major problems concerning the televised English language instruction?	Yes, one interruption of electric power. Related to problems of receivers. If there are technical problems, there has to be a technician. The other problem is related to teachers [classroom teachers]. They are untrained or they are not well informed so they may not use it properly in the class.	It doesn't mean that plasma is free from disadvantages. It has also some disadvantages. The first one is it is one directional. As a result of this, it is said that plasma is not interactive. The other problem is it was not give sufficient time to the teacher. Plasma may not good for medium learners and slow learners; fast learners are advantageous. But, the advantages exceed its disadvantages.	Yeah, the first thing is lack of supervision and evaluation. There is no monitoring and evaluation. No one is responsible for satellite television program. Even as a center we produce and disseminate programs all over the country and the regional states there are persons who are concerned to follow up plasma, but these people are negligent to follow whether or not the program is used effectively. And again the teachers have a problem of awareness. They considered plasma television

				program came to avoid them from their professional carrier. They though it is deliberately produced by the government to step down the people and to replace by the technology. And then the directors, educators, have no a clear idea why the Ministry of Education produced this big project with a lot of money.
13	The transmission of the plasma-based English language instruction was terminated in 2009/2010 academic year, and new plasma lessons have been transmitted in this year. Could you tell me the reasons of the interruption?	Why it was interrupted? It was because of the curriculum. Because of that we stopped it. The other is because of the time allocation; 30 minutes were covered by the plasma [the terminated one].	We believe that the transmission has not been interrupted since it was launched. Of course, the transmission of some of the subjects was terminated, but we continued broadcasting the programs of other subjects… [*Sorry for my interruption. I know that you have been broadcasting plasma lesson for preparatory classes in three subjects. However, the transmission of English language and Civics and Ethical Education was interrupted in 2009/2010 academic year and other subjects in 2010/11. Could you tell me the reasons?*] Ok, it's clear. It was done due to curriculum change. In 2006, we also made overall implementation evaluation and found out that the old plasma was speedy and most of the time was covered by the plasma.	Actually, I have no any idea about the programs that were interrupted. Regarding the new program, we tried to incorporate more activities than the old one.
14	Do you think that there are differences in the terminated and improved plasma-based English language lessons? If so, how different are they?	Yes, they are different as I already told you. We need to revise it from 30 to 20 minutes. The old one lacks animations. In the revised one, lessons are based on selected contents and topics.	Yes, based on, our evaluation, we gave sufficient room for classroom teachers in the new plasma program (the 20 minutes is covered by the plasma and the remaining 20 minutes for classroom teachers). The speed was also improved, we were received a positive feedback from students during	Ehhh…the number of activities, in the previous program, there might be one or two activities in one program [lesson], but in this new program 8 -10 minutes are covered by activities. The other difference is we tried to produce teacher's guide

			piloting. The other thing is we tried to make activities interactive; we give 8-10 minutes for activities. Furthermore, we included animations, simulations and demonstration in the new one.	and student's guide independently. The other one is the new plasma covers 20 minutes; the old one covers 30 minutes. These are some of the differences. [*May I ask you the reasons that you reduced 10 minutes in the new lessons?*]Yes, it is based on the feedback of students and teachers. When it was 30 minutes, there was no a chance to a teacher to communicate with the students. The other thing is that most of the previous plasma lessons were about 75% or 80% teacher-centered. There were enough activities in the program. Therefore, we tried to change this into interactive. In the middle of the programs, there are activities and students discuss and perform these activities with the teacher. And finally the presenter comes and gives the answer.
15	Could you comment on the overall effectiveness of the practices of the plasma-channeled ELT and its development?	Yes, I have the authority to follow up the practices of the program. We communicated the teachers and regional bureau heads, the *woreda* and the zone officals. There are problems. These problems are technical problems, lack of electric power, shortage of technicians and others. So, because of this, I'm afraid that the television program is not fully implemented. But most of the schools have used the television. We are going to conduct a research on the implementation of the program to fill these gaps. Ehhh…Not only the plasma	I personally think that the program is implemented effectively. Schools have been using the plasma. We have also realized that there are some problems; some gaps. For instance, if schools miss programs, they will not get it. To fill this gap, we plan to digitize plasma lesson in the coming year. The digitization project is finalized and ready to use in the 2012/13 academic year. That is, we will install plasma lessons here in our server, and schools will access them in their computer labs. The project will	Ehhh…Of course, it is not encouraging at this time. There are problems as I told you earlier. When you go to different regions, the people who are assigned to follow this program are negligent. They are irresponsible. They never pay attention to the program. Some schools have lack of technicians, some schools have a shortage of skilled teachers, some schools even do not have the dish, the receiver,

		television we are coming to the Internet. We installed server here and we are planning to install 120 severs in secondary schools in 2005 [E.C.] These telvison programs would be accessed by teachers, the teachers use that one. Lessons will also be provided with CDs and DVDs....Do you know that how much we cost for one episode?[*I'm afraid, I don't know.*] It costs 2572US dollar.[*Is that?*] Yes. Just we are producing one thousand nine hundred something episodes. You can multiply it. It's more than 5 million USD. We cost this for the students, for the teachers. It's really very important particularly countries like ours where there are a shortage of laboratory equipments. The other is those who need reference the plasma will support them, so technology is very important. So, in the future these technologies are, by hook or crook, going to the class and will be effective. [*Ok! Thank you very much, indeed. I have finished my interview.*] Ok!	begin in 120 schools next year and then step-by-step to all schools. The other thing is we plan to provide schools the plasma lesson with CDs and DVDs. Overall, we believed that the practice is underway effectively. [*Do you think that the plasma TV instruction will be effective?*] Yes, the world is moving to e-Learning. So, we need also to move e-Learning. For this reason, we designed a digitization project here our Center which costs about 18 million Birr. Huge servers have been bought and installed. Computers have also been bought. Using these computers and the servers, compressed programs will be installed and ready for use. This would be in use starting from the coming academic year. [*Ok! Thank you very much, indeed. Thank you for giving me your valuable time.*] I thank you, too!	these and other problems cause the program not to be successful. So, I don't think that the program is implemented successfully throughout the country.[*Please let me ask you your future plan to overcome these and other problems as an expert?*] Yeah, we plan to give continues trainings throughout the country. And again we will try to evaluate and monitor the implementation of the program...Finally, what I want to comment is that there should be a cooperative work among different directorate or different sections of Ministry of Education. You see, Ministry of Education has about 23 directorates. All these 23 directorates have only one output. They have same objective. If they have the same objective, they should struggle to achieve this goal. But they never discuss the problem by sitting together. For example, CEICT produce these programs; ICDR produced students' and teachers' books, and the syllabus, but they never discuss with this Center [CEICT]. [*Thank you very much I have finished my interview.*] You are welcome!

Appendix J

Sample Time Table of Plasma Lessons (the Improved Plasma-channeled Instruction)

Week-14(02-06 January 2012)

January 02, 2012

Programme Production Transmission Time Table, Monday														
Per. No.	School Period Time	TV Broadcast Time	Channel											
			1	2	3	4	5	6	7	8	9	10	11	12
1	2:00-2:42	2:02-2:22	Ma9 NP	En10 NP	—	Che11 3-9	Eng9 NP	Phy 10 NP	Civ10 NP	Che12 NP	Phy 12 NP	Ma11*NP	Ma12 NP	Phy 11 NP
2	2:.42-3.24	2:44-3:04	Eng9NP	Ma10 NP	Phy9 NP	—	Bio9 NP	Eng11 4-65	Civ9 NP	—	Bio11 2-23	Ma11 NP	Ma12 *NP	Phy 11 4-7
3	3:24-4.06	3:26-3:46	Ma9 NP	En10 NP	Phy9 NP	Che11 3-9	Boi9 NP	Phy 10 NP	Civ10 NP	Che12 NP	Bio11 2-23	Ma11* NP	Ma12 NP	En12 NP
	4:06-4.21	4:06-4:21			R	E	C	E	S	S				
4	4:21-5.03	4:23-4:43	Eng9NP	Ma10 NP	—	Che11 3-9	Eng10 NP	Eng11 4-65	Civ9 NP	—	Bio11 2-23	Ma11 NP	Ma12* NP	En12 NP
5	5:03-5.45	5:05-5:25	Eng9NP	En10 NP	—	—	Boi9 NP	Phy 10 NP	Civ10 NP	—	Phy 12 NP	Ma11* NP	Ma12 NP	Phy 11 4-7
6	5:45-6.27	5:47-6:07	Ma9 NP	Ma10 NP	Phy9 NP	—	—	Eng11 4-65	Civ9 NP	—	Phy 12 NP	Ma11 NP	Ma12 * NP	En12 NP
	6:27-6.42	6:27-6:42			L	U	N	C	II					
1	6:42-7.24	6:44-7:04	Ma9 NP	En10 NP		Che11 3-9	Eng9 NP	Phy 10 NP	Civ10 NP	Che12 NP	Phy 12 NP	Ma11 NP	Ma12 * NP	Phy 11 4-7
2	7:24-8.06	7:26-7:46	Eng9NP	Ma10 NP	Phy9 NP	—	Boi9 NP	Eng11 4-65	Civ9 NP	—	Bio11 2-23	Ma11* NP	Ma12 NP	Phy 11 4-7
3	8:06-8.48	8:08-8:48	Ma9 NP	En10 NP	Phy9 NP	Che11 3-9	Boi9 NP	Phy 10 NP	Civ10 NP	Che12 NP	Bio11 2-23	Ma11 NP	Ma12 * NP	En12 NP
	8:48-9.03	8:48-9:03			R	E	C	E	S	S				
4	9:03-9.45	9:05-9:25	Eng9NP	Ma10 NP	—	Che11 3-9	Eng10 NP	Eng11 4-65	Civ9 NP	—	Bio11 2-23	Ma11 * NP	Ma12 NP	En12 NP
5	9:45-10.27	9:47-10:07	Eng9NP	En10 NP	—	—	Boi9 NP	Phy 10 NP	Civ10 NP	—	Phy 12 NP	Ma11 NP	Ma12 * NP	Phy 11 4-7
6	10:27-11.09	10:29-10:49	Ma9 NP	Ma10 NP	Phy9 NP	—	—	Eng11 4-65	Civ9 NP	Che12 NP	Phy 12 NP	Ma11 * NP	Ma12 NP	En12 NP

Source: *Center for Educational Information Communication Technologies (2011).*

**Mathematics for Social Science Students; NP =Non-plasma*

Note that only the shaded boxes represent the broadcast lessons (only 4 subjects were broadcasted in 4 channels that day)