TEACHING - LEARNING THROUGH PLASMA TELEVISION AND ITS CHALLENGES IN SELECTED SECONDARY SCHOOLS OF ADDIS ABABA

Wakshum Fekadu

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This is to certify that the thesis prepared by Wakshum Fekadu Entitled: Teaching Learning through Plasma Television and its Challenges in selected secondary schools of Addis Ababa and submitted in partial fulfillment of the Requirements for the Degree of Master in Educational Research and Evaluation complies with the regulation of the University and meets the accepted standards with respect to originality and quality

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Declaration

I declare that this thesis is my original work. It has not been presented for a degree in any university and that all sources of materials used for this thesis have been duly acknowledged.

Name: Wakshum Fekadu

Signature: _____

Date: _____

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

Advisor: _____

Signature: _____

Date: _____

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Acronyms

CD-Compact Disc

ICT-Information Communication Technology

MoE-Ministry of Education

TV-Television

Abstract

The main purpose of this study was to understand the nature of teaching- learning through plasma TV in government secondary schools. The study further examined the functions and roles of plasma TV instruction in classrooms and its influences. Besides, the roles of classroom teachers and the students learning situation through plasma TV were issues addressed in the study. To achieve these objectives, data were collected from the four purposely selected government secondary schools of Addis Ababa through questionnaires, interviews, document analysis and observation. The respondents were randomly selected by using lottery method to fill the questionnaires, whereas the participants were purposely selected on the basis of cooperativeness and experience to be interviewed. As the study was more of qualitative approach, the data were presented and analyzed in narrative form and those data gathered through questionnaires were analyzed quantitatively by using percentage as statistical method in addition to my own reflective analysis. The finding revealed that, almost all teachers and students didn't take training on how to use plasma TV. Most teachers and students didn't have positive attitude towards plasma TV. The needs of individual learner couldn't be addressed through plasma teaching method and it couldn't foster students' critical thinking and reasoning abilities. Besides, it erodes the human relation between teachers and students. Therefore, the ministry of education, plasma TV developers and other concerned bodies should make some sorts of modification on the speed of transmission and on the medium of instruction. Teachers and students need to get sufficient know-how and skills to go hand in hand with plasma TV.

CHAPTER ONE

Introduction

1. Background of the Study

Now days, the world has become a small village through globalization; therefore, thinking about the world without information communication technology is not possible for any society Leon 1999 in Mathewos (2006). Globalization and global situation forced us to use ICT in our daily life and it has become something that we couldn't avoid using though serious problems are associated with it. There are fast and considerable advancement in the area of information and communication technology. Recently, Ethiopian government has given a great attention to the use of information and communication technology in secondary schools in the view of improving quality of education by using plasma television. This is expected to make secondary School education quality the same throughout the country. This means, students acquire the same quality of education with the same teacher to bridge the gap between urban and rural, poor and rich, privileged and unprivileged (Behera, 1995; 34).

In the history of Ethiopian education, the first television lesson was started in October, 1965 E.C. in Addis Ababa and its surrounding government schools. Then after, this limited coverage television lesson was extended in 1968 E.C to other private and government schools (Garetel 1974; 36).

However, at present, the Ethiopian education policy has given due attention to the utilization of this instructional technology. Accordingly, the educational media agency launched a new educational television program for secondary schools across the country since September 2004. It has been transmitting English, Maths, Physics, Chemistry, Biology and Civic Education for grades 9 to 12. The total transmission of this satellite TV instruction lasts for about

40 minutes; out of which 30 minutes is used for lesson transmission, whereas five minutes is used for the introduction of the day lesson while the rest five minutes is sued for the summary by the classroom teacher.

1.1. Statements of the Problem

So far, various researches have been conducted on the areas of plasma television. However, the challenges of plasma television are still widely seen in Ethiopian secondary schools.

Though the Ethiopian education policy gives priority for student-centered teaching - learning process and the teacher as facilitator, the plasma television forces them to be passive participants and merely observant, which contradicts with the designed and formulated policy.

Due to this, some researches strongly opposed the use of plasma television in secondary schools. Lemlem (2009) stated that it would have been better if the plasma television had not been introduced in Ethiopian education at all. She argued that there were no significant changes in Ethiopian secondary schools ever since plasma television has been introduced. Similarly, kedir (2006) suggested that plasma television is introduced in Ethiopian secondary schools primarily to control the hearts and minds of teachers and students rather than ensuring the equality and uniformity of secondary education throughout the country.

Amare (1998), also argued that the use of plasma television leads to a serious educational and social problems because it hinders the learners' mental development such as critical thinking and reasoning abilities.

On the other hand, some researchers greatly encourage the use of plasma television. Akalewold et al (2012) mainly suggested the importance of plasma

television. Similarly, Mathewos (2006) mainly forwarded the significances of plasma television.

However, this research was intended to make plasma television appropriate teaching aid in Addis Ababa secondary schools by creating awareness among students, teachers, directors and education bureaus to work together for the effective utilization of plasma television so as to narrow the wide gap between great appreciation and great opposing towards plasma TV.

Therefore, the study was mainly focused on the following major questions:

Do the teachers have necessary skills to use satellite TV to teach effectively?

Do teachers and students have positive attitude towards satellite TV?

What are the challenges that teachers and students face in using plasma TV?

Does the plasma teaching method really encourage active learning?

What are the possible solutions to minimize as well as to tackle the identified problems in secondary schools in teaching-learning through satellite TV?

1.2 Objectives of the Study

General Objective

The aim of this study was to assess the current teaching and learning process through plasma TV and its challenges in selected secondary schools of Addis Ababa. Accordingly, the researcher's intention was to investigate the difficult situations of using satellite TV, how teaching and learning through plasma TV goes on, and to the interest of teachers and students

Specific objectives of the study are to:

assess the functions, roles and effects of plasma TV in teaching and learning process.

identify teachers' and students' attitudes towards plasma TV.

investigate whether TV teaching method is appropriate or not in secondary schools of Addis Ababa

identify the major factors that influence teaching and learning through plasma TV.

forward possible solution for the stated problems.

1.3 Significance of the Study

The researcher believed that the study was very significant since it assesses the role of satellite TV teaching-learning process and those factors that affect this process. Accordingly, if there is no appropriate utilization of plasma TV, it is impossible to expect fruitful result and effective teaching-learning process. Therefore, the researcher hoped that this study would:

help curricular specialists, media experts and other concerned bodies to deal with how to improve teaching-learning process through satellite TV in secondary schools.

serve as a spring board for other researchers to conduct further researches on the challenges and strength of satellite TV teaching-learning process.

improve teaching and learning through satellite TV by minimizing those factors affects the proper utilization of TV teaching.

1.4 Delimitation of the Study

This study is very important if it is conducted in all secondary schools of Addis Ababa. However, the study was confined to four selected government secondary schools of Addis Ababa.

1.5 Limitation of the Study

It would have been better if the study had included many samples. However, the study's sample size may not be large enough due to financial and time constraints and it could be difficult to generalize the findings of the study at all Addis Ababa secondary schools level. Moreover, sufficient recorded materials may not available in secondary schools since plasma television is a recent phenomenon.

CHAPTER TWO

2. Review of Related Literature

This section deals with the views and findings of different scholars about educational technology which are gathered from various sources for evidence so as to strengthen and make worth the study.

2.1. Definition and Foundation of Educational Technology So far, there is no universally agreed definition of educational (instructional) technology. Different scholars define instructional technology differently. For instance, Heinik (1996), defines instructional technology as the use of technology to improve education and it is a systematic interactive process for designing instruction or training used to improve performance. Meierhenrye et al (1984) in Mthewos (2006) stated educational technology as electrical and non-electrical materials such as film projectors, tape recorders, television sets, photographs, charts and so on.

The greatest impact to education in the history of instructional technology came from 2nd world war where the efforts were made to teach the military various skills, McGraw (1965). Accordingly, this method was used to train soldiers with various skills within a short period of time so as to make them ready for action.

Then after, the invention of computer and programmed instructions were applied to education later developed into distance education that we have today. Meanwhile, they started to use educational television in education for the same purpose because there were great demands of using television in USA schools. According to McGraw (1965), the increasing use of this new medium calls for changes like new designs for school buildings, changes in the organization and scheduling of classes. However, soon after the implementation of television teaching method in classroom, many teachers and school administrators started

to raise some challenging questions against the designers because these drastic changes in instructional producers seem to strike at the very heart of the teacher-student relationship. As a result, such questions were raised: Will this instructional technology displace or degrade the teacher? Will the new technology destroy the privacy of the classroom and rob the teachers' autonomy? Will it place too much emphasis up on economy and efficiency, too little up on quality? After all, the questions are real and are not answered yet.

From this, one can understand that the uneasy forebodings aroused by modern technology are not limited to education; they represent one of the most pervasive emotional syndromes of our time. Therefore, the answer to technology's threat is not denying it or running away from it or refusing its benefits rather using it wisely.

As mentioned earlier, Plasma TV is one element of educational technology which is widely used for distance education in our country. However, when and how plasma teaching and learning method started in Ethiopian education? To answer this question it is better to high light the beginning or emergence of satellite TV teaching in Ethiopia.

2.2. The Fact About Educational Technology

In this competitive world, using educational technology is not the matter of choice; rather it is a matter of necessity to go hand in hand with global situation. No matter how poor we are, it is inevitable to be affected by the globalization either positively or negatively. In Ethiopia the use of educational technology like TV was started in 1965 E.C as Gartel (1974) pointed out though it had some limitations. By considering the significance of information communication technology particularly in education sector, the government gives great attention to educational technology especially in high schools.

Laundon (1994;12) said that ICT is a key instrument in modern problem solving ,to understand problem better, to design solution and ultimately create the kind of society we want. From this, one can understand that with the absence of ICT, it is impossible to bring remarkable changes in education by cultivating citizens who have world views and problem solving skills. Therefore, ICT has a profound impact on our lives and educational system because of its potential for changing our vision by creating foundation for understanding. With understanding, we control our vision, create solution, and provide new services and products to change the country at large.

However, this does not mean that ICT can be applied in all country without any problems so as to bring the intended objectives due to different factors such as society's perception and attitudes as well as luck of awareness about a given technology. For instance, Emerey (1977:200) showed that when instructional TV project was started in 1950 in USA, there were great resistances in the fear of that TV instruction destroys value of face-to-face instructions, being displaced of teachers (loses job) and its costs. Similarly, in Ethiopia there was a great resistance against technology products like millstone, car, air plane and etc in the past.

There was a time when people refused to grind grain in millstone since they considered it as devil's work. Even today, this attitude is not eliminated though the resisting style varies. For instance, some people argue that plasma teaching system forced students and teachers to be merely passive observant. Lemlem(2010) stated that it would have been better if plasma had not been introduced at all in Ethiopian secondary schools because it eliminates teacher's roles and discourages students' active involvement .Therefore, the resistance against one technology is not ignored since any technology has its own weakness and strength. Loundon (1994) suggested that it would be a serious mistake to assume that all resistance to a new media comes from conservativeness or anti-

progressiveness particularly in education. Undoubtedly, there must be reasons beyond resistance. Many teachers feel threatened because they believe that recent technological development particularly TV teaching method tend to put greater distance between the teacher and the student though the developers of TV teaching method denied. However, meaningful learning occurs in collaborative and cooperative task. Khine [2006) argued that humans naturally work in learning and knowledge building communities, exploiting each others' skills and sharing each others' knowledge

They naturally seek out others to help them to solve certain problems and perform tasks. But TV teaching designers believe that learning is an independent process when learners seldom have opportunity to do anything that counts in collaborative with teacher or other student. However, relying solely on single method of instruction medium, cheats learners out of more natural and productive modes of thinking and learning. Therefore, collaborative-working encourages interactive, interdependent and interrelated skills which promote meaningful learning.

Kedir (2006) suggested that education is a collaborative and collective tasks rather than transferring knowledge form pre-designed sources to recipients (students). Similarly, Lamish(1989:152) pointed out four different ways in which TV-teaching method affects students' school performances. They are displacement, information processing, and gratification and stimulates interest.

Displacement: TV may displace other activities, including reading, doing class work and completing other intellectual assignments which lead to the elimination of the required skills for achieving satisfactory performance level. As a result, satisfactory performance levels are left unpracticed and neglected due to the TV dominance.

Information processing: if the students give much attention to viewing TV their cognitive abilities which require different forms of information

processing deemed irrelevant for school-based performance. Here, constructivists argue that learning should not be limited to one single aspect rather the students construct their own world through their own exploration abilities; for this reason, conducive atmospheres should be created which allows them to assess their own world effectively.

Gratification: TV teaching may give immediate satisfaction for students. However, when they are faced to do challenging tasks which requires critical thinking and reasoning ability they get bored. Consequent, they demonstrate negative attitude towards schooling and school performance.

Stimulate interest: This factor is unique from the rest because it affects the students' performance positively. As its name indicates TV-teaching encourages learning curiosity, widens the student interest and reinforces a desire for learning.

From the above points, one can understand that unless necessary steps are taken while implementing TV-teaching and learning process at secondary school, the consequences may be dangerous. Because TV teaching method promotes surface learning by providing concrete objects which do not require much mental efforts such as critical thinking and reasoning abilities.

Kedir (2006), pointed that TV-teaching method doesn't consider learning and literacy as creative activities through which learners analysis and interpret their own lived experiences, make connections between these experiences and those of others so as to extend both conscious and understanding actions with reflection. Similarly, Khine (2006) suggested that student should be engaged in solving complex and challenging problems .Otherwise, they develop oversimplified views of the world.

World is a full of problems; therefore, the students should expose themselves to challenging tasks to give appropriate responses to the appeared problems and a

given teaching leaning process ought to promote students to develop problem solving skills. Khine (2006) strongly opposed TV teaching-leaning process. Accordingly, meaningful learning focuses on what phenomena mean to the Learners that requires active manipulation of idea and artifacts rather than rehearsing what something means to the TV-teacher and curriculum developers. This means meaningful learning occurs when learners are active, constructive, intentional, cooperative and working on authentic task. Amare (1998) suggested that meaningful teaching-learning process promotes students to play active roles in determining lesson relevance and media effectiveness.

He pointed that the intended educational objective is best achieved when planning is comprehensive and open to wide student participation as a decision maker rather than receiving order. Otherwise, the overall students' school performances might be faced great challenges. If it is used wisely, information communication technology is a key instrument in modern problem solving, to understand problems better and to design solutions.

2.3. Educational Television in the Views of Learning Theories

This section indicates the position and status of education TV each learning theory

2.3.1. Cognitivist Perspective

This theory deals with individual mental development. Cognitvists believe that the students learn best through real-life experiences rather than artificial and imposed world like that of teaching-learning via education TV. Cognitivists argue that teaching–learning should foster students to assimilate new concept to the existing experiences. But educational TV doesn't consider learners' individual differences; rather it forces learners to swallow the same tablet. They also give a

great position for teachers and for effective teaching learning process. According to Heinic, Robert (1989), teachers should responsible for providing learning experiences that will result in the creation of new knowledge as well as in the modification of existing knowledge. This to mean that, the teachers should cause experience to happen by using of media effectively rather than waiting experiences to happen naturally. Though cognitivists mainly focused on teacher‘s role, they considered educational TV as a passive experience

2.3.2. Constructivist Perspective

Constructivist Consider the engagement of learners in meaningful experience as the essence of learning. This shift is from passive transfer of information to active problem solving. Constructivist suggests that learners should create their own interpretations of the world of information. They also argue that the goal of instructional media is not to teach information but to create situations so that the students can interpret information for their own understanding (Heinic Robert, 1989).

But in context of Ethiopian secondary schools, educational TV is a major character in teaching information rather than enhancing students to interpret their own world. Heinic noticed that educational TV should not dispense facts but it should provide students with ways to assemble knowledge. This to mean that, learning occurs most effectively when the students are engaged in authentic tasks that related to meaningful context. He also suggested that any instructional media cannot replace the teacher rather it can help teachers to be creative managers of the learning experience instead of merely dispenser of information.

2.4 Brief History of Educational Technology in Ethiopia

With rapid expansion of modern education in Ethiopia especially after the Second World War, the necessity of supplement teaching with instructional materials has been recognized. The Ethiopia schools at that time were dependent on text prepared by foreigners. These texts were not adapted to Ethiopian conditions. This condition forced the MoE to find alternative. This alternative was realized when the American program known as point four was launched in cooperation with MoE towards papering material. They agreed to establish audio-visual center of assist in the supply of text book and other teaching aids, to the Ethiopian schools.

Then MoE succeeded in producing local text books, manuals, wall posters, charts, pamphlets, films, sound production and others. Accordingly, the increasing demand of audio-visual aid forced the MoE to adopt the use of educational TV (Semegn, 2006). Teaching and learning through satellite TV (plasma) is a recent phenomenon in the history of Ethiopian education.

According to pan African ICT (2009) report, teaching and learning through satellite TV in Ethiopian secondary and preparatory schools for grades 9 to 12 was started in 2004. According to AkaleWold et al (2012) the government spent high expenditure on this project with the assumption that education system must be changed to active learning by using plasma technology that brings individuals to advanced world by brining every corner of Ethiopian high schools with equivalent educational standard.

As Pan-Africa Research Agenda on Pedagogical Integration on ICTs (2009) to realize this, the government turned to the two South African companies for help, Kagiso and Sasani. This project had two parts: The first part was producing the educational TV program for grades 9 to 12 and the second part included creating

supporting materials for both teachers and students. The initiative was supported by 80 USA million dollar World Bank loan.

When the project began in 2004 Ethiopian ministry of education was requesting 2978 individual programs to be produced in 12 months. In response, Kagiso and Sasani created "Memar TV" or "to learn" in Amharic, Ethiopian official language for this purpose,60 researchers, script writers and subject experts, and 80 full–time technical staff were participated. The programs also included graphics, studio presentation and visual taped in both South Africa and Ethiopia. The project was aimed at alleviating the lack of enough skilled teachers and overcrowded classrooms in Ethiopian education system. Eventually, 450 schools were equipped with 8000 plasma screen. However, the developers forwarded their fears on the issues such as the possible marginalization of teachers; lack of understanding English since teaching is in a local language until high schools, and the passive nature of learning from TV screen. In the same way, some scholars argue that TV should be used as teaching aids and where the classroom teacher has a complete control and uses TV for demonstration, observation and magnification as a tool which he/she manipulated with his/her hands as she/he wants, Khine (2006.)

2.5 The Situation of Satellite TV Teaching and Learning Process in Ethiopia.

Satellite has the power to one-way transmission of data, voice, motion, video and other messages. Due to this, it enables the learners to see and hear what is transmitted for them at the times including the TV-teacher. Sometimes when mistakes are made by TV-teacher and when classroom teacher tries to correct that, the students get confused to accept the correct one.

Also the TV-teacher neither sees students nor their responses to questions (Sharma et al.; 1994). Accordingly, where there is no informative feedback, there

may not be effective control. The TV-teacher suffers from the disadvantage of not knowing the reaction of his/her audience. Sharma (1994) explains that satellite TV can provide wide spread educational services to rural areas much more quickly than could be done by expanding a terrestrial microwave system.

Besides, satellite technology is capable of reaching a large number of students over an extensive geographical area Laundon (1994) suggested that using combination of media for teaching and learning is most effective but the variation in learning depends on how a medium is used.

This is to mean that the selection of one medium is the matter for effectiveness of broadcasting on designed lesson and the students' interaction with it because merely passive listening or viewing does not lead to learning. Besides, there is a relationship between the children's interest in TV learning and the classroom teachers. Some scholars suggested that there was a close relationship among a particular curriculum, the classroom teacher and the children's interest in the TV-program, Schuller (1995).

The Negative attitudes and inability to use TV by classroom teacher arises from various factors such as uncritical acceptance of many academic attitudes toward the television medium and lack awareness about the opportunities which TV offers educational contribution in classroom (Steinberg, 1968). Through effective utilization of the available programs, the teacher can make the lesson more meaningful which may easily understandable for all students. Research findings showed that teachers' acceptance is necessary for the effective use of instructional technology (Barnes 1965).

Accordingly, the significance using TV in classroom depends on the effectiveness of the teacher who uses it. If the teacher has no relevant skill to use that TV and has no awareness about the importance of using TV; he/she does not implement this medium in classroom effectively. Besides, (Waniewick, 1972)

pointed that while carrying out the teaching and learning process, whatever instructional tool is used, the amount of information observed, assimilated or accepted by the learner depends up on the credibility of the content, the clarity of its presentation, the students' interest and abilities to master the subject.

Since TV is a means of communication than other, the students' preparation as important as teachers' preparation for the meaningful classroom interaction. Plasma teaching method highly affects the classroom teacher's autonomy as that of students, because most of the time the classroom teachers are forced to do what they are told by the plasma teacher rather than using their own various teaching methods so as to address the needs of individual learner. However, scholars argue that students learn best when the teacher uses different teaching methods that benefit all learners. To support this idea, Geoff (2004:13) indicates different teaching methods or learning activities and their contributions to cognitive

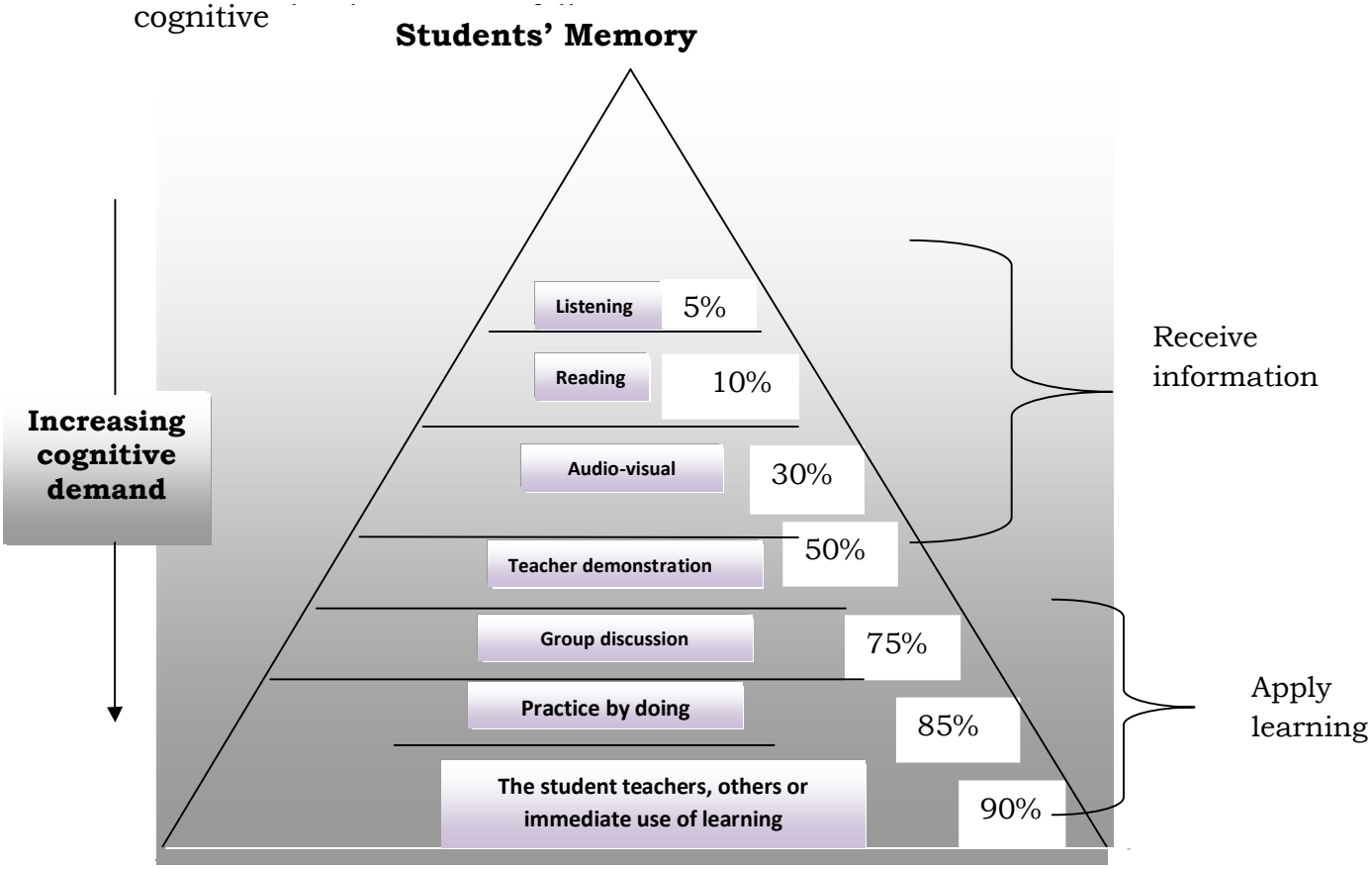

Figure 1, the students' recall rate of different learning activities

According to this diagram; undoubtedly, TV-teaching is considered as a passive way of receiving information. However, those very important methods seem to be left behind while teaching and learning through TV. Some students prefer ideas to be presented through the visual channel like TV, video, demonstrations and so on while others prefer the auditory channel like teacher explanations, discussions, etc. Also some students are benefited from learning by doing.

Broadly speaking, using instructional media in classroom requires critical thinking and great care so as to achieve the desired educational objectives. As mentioned earlier, in classroom there are different students which may need different treatment and special instructional media. For instance, students with mental retardation need highly structured learning situations because their field of experience and ability to incorporate messages into mental constructs is limited (Heinic et al 1993:21).

They also suggested that students who are hearing impaired, blind, or visually impaired require different learning materials that enable them to catch specific purposes. But now days, in Ethiopian secondary schools there is a single teaching method, plasma teaching method, throughout the country except, non-governmental secondary schools, without taking into consideration the needs of different individual learners particularly, the needs of students with disabilities.

Also, plasma teaching method doesn't give much room for cooperative and collaborative teaching-learning process. Lemlem (2010) argued that plasma teaching method has no remarkable contribution in Ethiopian education as evidences five years after education by plasma was introduced in 2007; student who passed national exam was 7.6% and 2008 only 3% at national level. From this, one can understand that the student academic achievement seems to decrease from time to time, may be due irrelevance of plasma teaching method. She also suggested that plasma discourages student active roles and eliminates

teachers' role since the lectures are poorly organized and the students' language proficiency is very low to learn in English form plasma screen.

Heinich et al (1993) opposes this single method of teaching. He suggested that using various instructional media leads to effective teaching and learning. For example, students with standard reading skills can be reached more effectively with printed media like news paper, magazine, books, etc rather than watching and touching concrete objects.

Geoff (2004) also pointed different teaching methods that develop different skills in the learners. Worksheets enable the students to develop the skills of reading and of attending to detail. Design work develops students' creative ability and group discussion develops their persuasion skills and the ability of working with others. Similarly, a variety of teaching methods makes a teacher's job more attractive and enjoyable. But if the teacher uses the same teaching method repeatedly, the students get frustrated.

But, now what are happening in Ethiopian secondary schools is far from this because about 30 minutes is covered by plasma teacher almost there is no time for practice or group discussion and the classroom teacher chases hurriedly the instruction of plasma teacher rather than addressing the needs of individual learners. However, Steinberg (1968) stressed that if TV is effectively used as teaching aid in classroom, it has the power to create a picture of the world in students' minds. Accordingly, the classroom teachers have to use TV properly in classroom and initiate the students to observe the lesson wisely. Moreover, using plasma teaching methods has many advantages.

One role that plasma definitely plays is to provide concrete referent for ideas because words may not represent the thing they stand for and it motivates learners by attracting their attention, holding their attention, and generating emotional response. But, the reality in Ethiopia secondary schools is opposite to

this because the teachers have only few minutes to do this. Regarding this Sharma (1994:63) said that there is no opportunity for both classroom teacher and students for discussion and reflection on the lesson with televised teacher, and the classroom teacher has no way to make vary the presentation so as to meet the needs of individual learners.

Kedir(2006) forwarded that plasma dehumanizes, deskills teachers and erodes the human relationship between teacher and students. This to mean that, the teachers cannot develop various lessons that meet the needs of individual learners rather they are simply executioners of what others planned or wanted to happen in classroom. Besides, it puts great distance between students and teachers. Human life holds meaning through communication and dialogical relation. However, plasma positions the students in the role of passive listening-obedience and taking orders rather than negotiating meaning.

Kedir also suggested that the implicit ideology behind plasma teaching method is promoting a culture of silence, a condition in which people are unable to distance themselves from their lives activities, making it impossible for them to rise to the level of reflection so as to guide one's own destiny. McGraw (1965) also argued that any learning depends on the need and amount of invested mental effort of the learner. The more mental efforts the students invest, the more they learn from the given medium. It is true that in Ethiopian secondary schools most students tend to invest less mental effort while learning from satellite TV; as a result, their academic achievement seem to get worse from time to time.

2.6 Educational Television versus Grade Level, Sex and Age

Grade level, sex and age are demographic variables that can affect the proper utilization of educational TV.

> To meet the intended objection, educational media will depend on factors. Such as subject matter under study and the learners' characteristics like ages, levels of intelligence and their specific knowledge, (Heinic, Robert 1989)

Form this, one can understand that to achieve the wanted target through educational media taking into consideration the ages, levels of intelligence and experiences of the students are very important.

With respect to age, in context of Addis Ababa secondary schools, most of the grade nine and the grade ten students are between 15-17 age groups. This medicates that they are not young enough to determine why they learn and their responsibilities of learning. Heinic Robert (1989) suggested that very young children learn to distinguish between cats and dogs and later become aware of varieties of dogs based on their ages. This to mean that, as the ages of students increase, their level of understanding also increases. Salmon and Leign 1984, in Amare 1998(a), pointed that in a study conducted in USA, student do not take TV as a serious educational medium of learning rather they view it as a fun medium.

On the other hand, grade level can influence the effective implementation of educational TV. As their grade level increase, the students' adaptation to educational TV may also increases. At elementary level, the students accustomed to face-to-face learning in local languages but when they come to high school, the medium of instruction is English and learning method is changed to plasma TV from face-to-face learning method. Particularly, grade

nine students are highly affected compared to grade ten students because most of them couldn't understand the language of TV teachers.

As a result, they lost hope of success and became worried which led to low academic achievement. To support this idea, Heinic. Robert (1989:22) stated that students with anxiety are prone to make mistakes and learn less efficiently under media pressure. On the other hand, the researcher thought that, the difference in sex could affect the proper utilization of plasma TV. It is obvious that women are disadvantaged group due to our traditional evil attitudes towards them.

Men superiority and women inferiority are things that's deep rooted in our society for many years and still not totally abolished. According to UNFPA (2008) research report, among the 25 countries, Ethiopia was the second from the last regarding to women's access to TV and only 4.4% of women aged 15-49 watching TV at most once a week. This indicates that Ethiopian women have low accessibilities to TV. This may affect their academic performance while learning through plasma TV since they have low accessibilities.

2.7 Teachers and Plasma Guide

The amount of learning is understood from what is going on in the classroom before, during and after the program is broadcasted. To carryout effective teaching-learning in classroom through instructional television both the classroom teachers and television teachers need to work together in collaboration. Their collaboration can only be realized by using teacher's guide which serves as a vital bridge between a television teacher and classroom teacher as educational media agency (2004).

The main objective of Plasma guide is to give basic ideas to the classroom teachers on how to use television lesson, what to do and how to do. The

Ethiopian newly incorporated satellite television program lessons are today framed under six subsequent stages on the teachers guide and during transmission EMA, 2004 .These are: Topic of the television program which indicates the topic of the lesson, objective of the television program which shows the objectives of the television program are specific to each period of transmission, content of the television program are specific to each period of the transmission that provides the teachers with the daily content.

Before television program: the classroom teacher is given different instructions and what she/he has to do before the binning of transmission

During the transmission (broadcast): the classroom teacher is expected to facilitate teaching and learning atmosphere

After broadcast (transmission): the classroom teacher is expected to sum up to the daily lesson by discussing the main points of the daily lesson

Generally, in secondary school the daily teaching-learning process through satellite is divided into three phases which lasts about 40 minutes per-period. These are: **Before broadcast;** during this period classroom teacher is expected to use 5 minutes to do the following activities: introduces the day's lesson, encourage students by asking some brainstorm questions, revises the previous lesson if necessary, writes some important formulas and definitions on the blackboard.

During the broad cast; During this time the teacher performs the following: guides and supervises students' performance, help students while doing different exercises given by plasma teacher, explains some words or instructions that students failed to understand. **After broadcasting;** at this time the classroom teacher is allowed to use about 5 minutes to do the following activities: discusses the main points of the daily lesson, answers questions raised by students and gives correct feed for exercises and give home-wok (if any)

2.8 Strength and Weakness of TV-Teaching

Whatever medium it is, it has its own merits and demerits. As I tried to mention earlier, different scholars suggested different ideas on the merits and demerits of TV teaching method. For instance, cable R (1965) indicates the strength and weakness of TV-teaching method as follow:

Strength of TV-teaching Method; television magnifies in a clear, accurate and tell the way and encourage sustained attention, careful observation and attentive listening, it brings a living feature from distant places without leaving the actual classroom, it has quality immediacy (current events can be brought to the classroom as they happen, avoids application of expensive laboratory equipment and special and expensive set ups can be shown and demonstrated to students, it provides opportunity to train students in listening and note taking and it can present lesson in all forms of spoken patterns: narration, dialogue, lecture, discussion, interview, commentary or in any other form.

Weakness of TV-teaching Method; the classroom teacher has no control over the pace of development of a television lesson**,** lesson times are inflexible

and consequently, sometimes inconvenient, it difficult to take into account the variation in attainment and ability within an age group, it doesn't give ample room for classroom discussion or student centered learning, its pace is constant; it cannot be slowed for slow learners or cannot be accelerated for fast learners, provides little opportunity for verbal interaction between classroom teacher and learner, it is too hard to capture the viewers' reaction about the program.

As a result, the producer doesn't have a chance to control if the program is not watched by the viewers. Similarly, broadcast television isn't interactive, so the participation of the viewers is getting low. Producers may not understand these important points while producing education TV program.

CHAPTER THREE

3. Methods

3.1. Research Method

As mentioned in the previous chapter, the purpose of this study was to assess teaching-learning through satellite TV and its challenges in selected secondary schools of Addis Ababa.

For this purpose, descriptive survey method was employed with the assumption that it helps to gather sufficient data related to the subject under study. Regarding this Sharma (2000) stated that descriptive survey method is appropriate to gather data from relatively large number of population. The researcher used both qualitative and quantitative approaches but more of qualitative approach because the qualitative approach enabled the researcher to get depth human behavior and attitude which can affect the implementation of teaching-learning via satellite TV. On the other hand, quantitative approach was used as supportive tool to gather information which could not be assessed qualitatively. Generally, this mixed approach increases the validity and reliability of the given data.

3.2. Sources of Data

For this study, both primary and secondary sources of data were used. Primary sources of data were obtained from teachers including directors and students. Whereas, secondary sources of data were obtained through document analysis.

3.3. Sampling Population and Sampling Techniques

For this study, four government secondary schools of Addis Ababa were purposely selected on the basis of accessibility, the researcher's familiarity with these schools communities, and sufficient data (the researcher observed different

problems while he was conducting practical teaching during his first degree). These are higher 12 secondary school, Mieraf secondary school, Dilachin secondary school and Shimalis Habte Secondary School. These Schools are accessible for transportation and proximate to the researcher.

Besides, the researcher has been teaching in higher 12 secondary school since 2000 E.C. Therefore, he believed that he would come up with sufficient data with the cooperation of his colleagues and the researcher can confidently reflect those problems appeared in the school during utilization of teaching-learning process via plasma TV from his experiences. Similarly, the researcher used to conduct various researches and practical teaching in the rest of schools when he was studying his first degree at Addis Ababa University. In addition to this, some of his friends teach in these schools. So, the researcher hoped to get relevant and rich information related to the subject under study.

To achieve the intended objectives, the researcher used simple random sampling technique for both teachers and students by using lottery method to avoid bias in the population. Accordingly, from higher 12 secondary school fifty-two teachers and three- hundred and ten students, from Mieraf secondary school, sixty-three teachers and three hundred and thirteen students, from shimalis Habte secondary school, seventy-three teachers and three hundred and nineteen students and sixty- five teachers and three- hundred and seventeen students from Dilachin secondary school. This sampling can be seen as follow:

Table1: Sampling Population and Sampling Techniques

Sub–city	School	Teachers		Students	
		N	S	N	S
Yeka	Higher 12 secondary school	60	52	1672	310
Gulalle	Mieraf secondary school	63	56	1703	313
Kirkos	Shimalis Habte secondary school	73	63	1820	319
Arade	Dilachin secondary school	65	56	1755	317
Total	Four (4)	**261**	**227**	**6950**	**1259**

N= Total population S= Sampled population

3.4 Instruments of Data Collection

As the study was qualitative and quantitative, the researcher used observation, interview, and questionnaire and document analysis.

3.4.1. Questionnaire

The questionnaires were prepared for teachers and students. The researcher prepared the questionnaires with close-ended and open-ended categories after collecting data from various literatures. Then the questionnaires were given to the advisor for comment. Putting the advisor's constructive comment into practice, the questionnaires were duplicated and distributed to teachers and students.

Out of 227 and 1259 distributed questionnaire papers for teachers and students respectively, two hundred and twenty three (98.2%) teachers and one thousand two hundred and fifty (99.28%) students filled and returned the questionnaires successfully. The questionnaire prepared for teachers had four parts. The first part dealt with the teacher's personal information, the 2nd part consisted seven

items of close-ended questions related to the implementation of plasma TV and the 3rd part consisted seven items with close-ended and open-ended questions, whereas the 4th part dealt with problems encountered during the utilization of satellite TV in classroom. Similarly, the students' questionnaire had four parts. The 1st part dealt with the students' personal information, the 2nd part explained teacher's contributions in facilitating teaching- learning process, the 3rd parts dealt with students' attitude towards plasma and the 4th part dealt with teaching learning through plasma and its difficulties.

3.4.2. Interview

The purpose of this interview was to gather relevant information about teachers' and students' feelings and attitudes towards plasma TV which could not be assessed properly by other instruments. To this end, the researcher purposely selected three teachers and three students from each school based on their willingness and experiences. Then, the researcher and participants arranged the interview time and place together. Accordingly, the researcher conducted in-depth interview with teachers and students inside and outside the classroom in the school compound by taking note. The interview items were both structured and semi-structured. Totally, the interview session for both teachers and students lasted six hours.

3.4.3. Observation

The researcher observed the actual classroom environment while teaching-learning was taking place for about a month to collect factual information. Then, after getting permission from the director of each school, the researcher observed attentively for those subjects transmitted through satellite TV. This observation was conducted both in grade nine and grade ten by using observation check-list that consisted items with a "yes" or "no" categories.

3.4.4 . Document Analysis

Since plasma teaching-learning method is a recent phenomenon in Ethiopian education, there were no such much available records in secondary schools. However, the researcher collected some data from school records such as paper works by teachers and lesson plans to substantiate the data.

CHAPTER FOUR

4. Data Presentation, Analysis and Interpretation

In this section, the data obtained from the questionnaires of teachers and students were analyzed quantitatively by using percentage as a statistical method, whereas those data obtained through interviews, observation, document analysis and open-ended questions found in questionnaire part were analyzed and described qualitatively in narrative form in addition to my own reflective analysis.

4.1. Analysis of teachers questionnaire

4.1.1. Background characteristics of Teacher Respondents

The responses obtained from teachers based on their characteristics in terms of sex, age, qualification and service years were indicated below:

Table 2: Characteristics of Respondents by Sex, Age, Qualification and Service Years

No	**SEX**	**Male**			**Female**			**TOTAL**
1	No	125			98			**223**
	%	56.05			43.95			**100**
2	**Age**	20-25	26-30	31-35	36-40	41-45	46-50	
	No	25	86	39	34	20	19	**223**
	%	11.21	38.57	17.49	15.25	8.96	8.52	**100**
3	**Level of Education**	**Diploma**		**Degree**	**MA**	**Others**		
	No	0		121	12	0		**223**
	%	0		94.62	5.38	0		**100**
4	**Service year**	0-10	11-20	21-30	31-40	41-50		
	No	97	61	44	21	0		**223**
	%	43.50	27.35	19.73	9.42	0		**100**

As shown on the above table, one hundred and twenty five (56.05%) of the teachers are males, whereas ninety- eight (43.95%) are females. This indicates that the numbers of female teachers are less than that of male teachers.

Regarding age, twenty-five (11.21%) teacher respondents are between the age group of 31-35, thirty –four (15.25%) teacher respondents are between the age group of 36-40 while twenty (8.96%) teacher respondents are between the age

group of 41-45, whereas nineteen (8.52%) teacher respondents are between the age group of 46-50. This implies that most of the teachers teaching in secondary schools are young and they can reflect the existing reality concerning the subject under study.

But, it doesn't mean that being a young by itself guarantees for effectiveness of teachers in implementing an educational program. Concerning the respondents' qualification, two hundred and eleven (94.62%) teacher respondents are first degree holders, whereas twelve (5.38) teacher respondents are master's degree holders. There were no diploma and other qualification holders in selected secondary schools. The knowledge that the teachers have is one of the major factors that affects the implementation of educational media as Geoff (2006). In the same way, teacher's knowledge and understanding of the subject matter is a major factor that affects the implementation of education TV.

As it can be seen from above table, all teachers involved in the study to fill the questionnaires had the required qualification for secondary education. On the other hand, some scholars pointed out that experience plays a vital role for the effective implementation of educational program in general and educational media in particular as McGraw (1965). Accordingly, ninety seven (43.50%) of teacher respondents had between 0-10 service years; sixty one (27.35%) of the teacher respondents had between 11-20 service years; four (19.73) teacher respondents had between 21-30 service years; twenty-one (9.42%) of teacher respondents had between 31-40 service years. But, none of teacher respondents have between 40-50 service years. From this, one can understand that most of the teacher respondents had between 0-10 service years.

4.1.2. Issues Related To The Implementation of Plasma

Table 3: teachers' responses to issues related to the implementation of plasma television.

No	Items	Teacher respondents				Total
1	How often do you receive training related to the utilization of instructional television?		Sometimes	Rarely	Never	**223**
		No	19	32	172	
		%	8.52	14.35	77.13	**100**
2	Have you taken orientation before you started teaching in classroom through plasma television?		Yes	No		
		No	41	182		**233**
		%	18.39	81.61		**100**
3	How often do you participate in panel discussion or seminar on plasma teaching issues?		Sometimes	Rarely	Never	
		No	0	51	172	**223**
		%	0	22.87	77.13	**100**
4	Plasma TV teaching method promotes effective teaching and active learning		Agree	Disagree	I don't know	
		No	59	146	18	**223**
		%	26.46	65.47	8.07	**100**
5	To what extent is the student's text book, teacher's guide and plasma transmission related?		Related	Less related	Unrelated	
		No	63	146	14	**223**
		%	28.25	65.47	6.28	**100**
6	How do you rate the time given for introduction and revision of the day's lesson?		More Sufficient	Sufficient	Insufficient	**223**
		No	0	32	191	**100**
		%	0	14.35	85.65	
7	If you were given a chance to select the following teaching, learning methods, which would you prefer?					
	7.1.Collaborative and cooperative			131	58.74	**223**
	7.2.Televised teaching			6	2.7	
	7.3.Face-to-face teaching more time for television			21	9.41	**100**

Basically, the use of educational TV may not be considered as a passive experience but the way the classroom-teacher uses the material leads to passive experience as Emery (1977). This is to mean that the way educational TV was utilized in classroom determines the overall teaching-learning process whether as active or passive. It is better to build the teachers with necessary skills which enable them to use educational TV properly and effectively in classroom.

Regarding this, Heinich (1993) suggested that teachers must have necessary skills as well as they must have sufficient knowledge of the subject matter they are going to teach and sufficient techniques of teaching. However, as can be seen from table 2, the majority of teacher respondents (77.13%) responded that they didn't get any training concerning the utilization of instruction TV, while 8.52% teacher respondents took training sometimes and 14.35% teacher respondents were seldom got training. During the interview, one teacher forwarded his idea concerning training as follow:

> *Before plasma TV-teaching started in classroom, some selective teachers got training to train other teachers but it was not effective even the training seemed not well organized …. Eventually the training was totally ceased; as to result, most teachers particularly those teachers deployed after us didn't get training. 14/8/04*

Similarly, most of the teacher respondents (81.61%) didn't take orientation on how to use plasma TV in classroom, whereas only 18.39% teacher respondents were oriented. This indicates, one of the great obstacles that contribute the ineffective utilization of plasma TV in classroom because this instructional material is not "a magic bullet" which may generate golden result without manipulation or operation, rather it requires teachers' maximum efforts and advanced orientation. As mentioned earlier, plasma TV is a recent phenomena in Ethiopian education; therefore, teachers and students are required to get advanced orientation.

However, the majority of teacher respondents confirmed that they utilized plasma TV in classroom without having skills to operate, but by their own efforts. To support this idea one of the teacher participant said;

> *You know, if you come across with new a thing, you will get confused to manage.... The first day I entered the classroom to teach biology, the students asked me to increase the volume of plasma TV but I worried since I was fresh teacher and I was not familiar with the device. Confidently, I pressed one of the buttons on the device and the program was disappeared from the screen and I pressed the other buttons turn by turn the whole period but I couldn't get. Then the students began to shout and I became nervous... Therefore, training and orientation is very important particularly for fresh teachers. 15/8/04*

On the other hand, only 22.8% of the teacher respondents got seldom chance to participate in panel discussion on plasma TV operation, whereas 77.13% of the teacher respondents didn't get chance to participates in any panel discussion concerning plasma TV. This indicated that there were no substantial efforts done by concerned bodies to empower teachers by preparing different panel discussion.

Regarding to the role of plasma TV in promoting effective teaching and active learning, 65.47% teacher respondents showed their disagreement on the idea that plasma TV- teaching method promotes effective teaching and active learning. But, 8.07% of the teacher respondents didn't know whether plasma TV teaching method promotes active learning and effective teaching or not. From this, one can state that plasma TV-teaching method has less significance in promoting active learning and effective teaching. According to (Mander 1978 in Amare, 1998), television is a communication medium that effortlessly transmits huge quantities of information without considering the time of exposure; television information is not available for conscious analysis, and understanding

learning. This is to mean that, teaching- learning through satellite TV doesn't give room for students' active involvement and their maximum mental efforts. Similarly, Kedir (2006) strongly opposed those who said TV- teaching promotes active learning and effective teaching in context of our country. On the other hand, the intended educational objectives are better achieved if and only if the students' text, the teacher's guide and the plasma transmission are related. But as it can be seen from table 3, most of the teacher respondents (71.75%) said that student's textbook, teacher's guide and plasma transmission are unrelated, whereas 28.25% suggested that student's textbook, teacher's guide and plasma transmission are related.

Concerning the time given for the day's lesson, 85.65% teacher respondents suggested that the time given for introduction and revision of the day's lesson is insufficient but only 14.35% teachers respondents agreed that the time given is sufficient. To back up this idea one teacher participant said.

> *For me time shortage is a great challenge for teachers as well as for students to use plasma TV properly … time allocation for each activity seems something carelessly done by the program developers because it is difficult to do a given activity within a given time due to the fast appearance and disappearance of the program. 16/8/04*

From this, one can conclude that the time given for each activity is not sufficient and it requires due consideration by program developers and all concerned bodies. If time shortage hinders the proper implementation of a given lesson, using plasma TV is for the sake of formality rather than for education quality.

Tewoderos (2008) pointed that it is dangerous to assume that educational TV is remedy for today's educational challenges. Therefore, careful planning must be curriculum driven. Technology should not be adopted for the sake of technological adoption but to improve or enhance current methods of teaching and learning.

To select the important teaching method, the researcher provided various teaching methods for teacher respondents. Accordingly, 58.74% of the teacher respondents chose collaborative and cooperative teaching method; 2.7% teacher respondents favored televised teaching; 9.4% teacher respondents liked face-to-face teaching but more time for television; whereas 29.15% teacher respondents chose face-to-face teaching and more time for classroom teacher. This indicates that collaborative and cooperative teaching is the most appropriate method of all. However, in Ethiopia secondary schools televised teaching dominates collaborative and cooperative teaching method

4.1.3. Student Learning.

Table 4: Teachers' responses to student learning

No	Items	Teacher respondents						Total
1	Do you think that the TV programs are helpful for enhancing classroom instructions?		Yes		No			
		No	71		152			**223**
		%	31.84		68.16			**100**
2	To what extent students learn from plasma compared to face to-face teaching?		Learn More		Learn less		Learn the same	
		No	22		201		0	**223**
		%	9.87		90.3		0	**100**
3	How do you rate the students' responsibilities to learn from plasma TV?		Responsible		Less Responsible		Not responsible	
		No	29		194		0	**223**
		%	13		87		0	**100**
4	How to you rate the interest of your students to learn by plasma TV		More Interested		Less Interested		Not interested	
		No	13		172		38	**223**
		%	5.83		77.3		17.4	**100**
5	Do you think that plasma teaching method promotes students' active participation in class activities?		Yes				No	
		No	27				196	**223**
		%	12.1				87.9	**100**
6	Do you believe that the TV transmission catches students' attention?		Yes				No	
		No	42				181	**223**
		%	18.3				81.7	**100**
7	How do you rate the language competency of your students to understand message from the TV-teacher?		Excellent	Very good	Good	Fair	Unsatisfactory	
		No	0	0	13	36	174	**223**
		%	0	0	5.83	16.4	78.3	**100**

As it can be seen from the table 4, 68.16% of teacher respondents stated that TV-program doesn't enhance classroom instruction, whereas 31.84% of the teacher respondents showed that TV-program enhances classroom instruction.

According to the views of most teacher respondents, plasma TV-is not helpful to enhance classroom instruction. On the other hand, most teacher respondents (80.13%) of them preferred face-to-face teaching to plasma TV- teaching for student learning, whereas 9.87% of them preferred plasma TV- teaching to face-to-face teaching for students effective learning but none of them said students learn the same from face-to-face and plasma teaching. From this, one infers that majority of the teachers responded that students learn more from face–to–face teaching than televised teaching. Kedir (2006) pointed that televised teaching method erodes the human relationship between teachers and students. Besides, there is no effective communication between TV- teachers and students; as a result, students are demotivated to learn from it.

Regarding to the students' responsibilities, 87% of the teacher respondents stated that students are less responsible to learn from plasma TV, whereas 13% of teacher respondents suggested that students are responsible to learn from plasma TV. Any learning from educational media depends on the students' needs, responsibilities and interests *McGrawc 1965.*

From this, one can understand that students are required to be responsible for what they learn and how to learn by making different efforts. However, most students failed to understand this issue. Similarly, 17.13% of teacher respondents showed that the students are less interested to learn by plasma and 17.04% of teacher respondents stated that the students had no interest to learn by TV, whereas 5.83% of the teacher respondents suggested that the students are interested to learn by plasma TV.

Accordingly, majority of teacher respondents stated that students are less interested to learn by plasma TV though interest is one of the indispensable tools for effective learning. Because if interest dies no more success. Therefore, this is an issue that requires great attention to indentify the reason why students lost interest.

Concerning students' participation, 87.89% of the teacher respondents commented that plasma TV doesn't open room for students' active participation; whereas 12.11% of them said that plasma-teaching method encourages students' active involvement in classroom activities. From this, one can conclude that plasma TV-teaching method forced the students to be passive participants. According to Lemlem (2010), it would have been better if plasma had not been introduced at all in Ethiopian secondary schools since it eliminated teacher's role and discouraged students' active involvement. Similarly, 81.17% of teacher respondents suggested that TV transmission doesn't catch students' attention, whereas 18.83% of them showed that plasma transmission catches students' attention which 18.83% of them showed that plasma transmission catches students' attention. From this, most of the teacher respondents revealed that plasma transmission doesn't catch students' attention may be due to improper lesson organization and ineffective presentation. It is obvious that plasma uses massive lecture method for all students without taking into consideration students' performance level, needs, sex and disabilities. Therefore, it is difficult to expect the students' meaningful participation as well as to say plasma catches students' attention.

Regarding to the students language competency, 78.03% of the teacher respondents stated that the students' language competency is unsatisfactory, 16.14% of them suggested that the students language competency is fair; that means moderately good, whereas 5. 83 % of them confirmed that the students' language competency is good but none of them suggested that the students'

language competency is excellent and very good. This indicates that the writing and listening skills of secondary school students is below the required level (poor). Because at elementary levels students learn in local language except few private schools. However, at secondary school English is a medium of instruction and learning through plasma TV is another challenge. As a result, when they came to high school most students failed to attend the plasma TV. Basically, learning is understanding, without understanding no learning at all.

4.1.4. Problems Encountered During the Utilization of Satellite TV In Classroom

Table 5: The response of teachers regarding to the problems encountered during the utilization of satellite TV in classroom

No	Items	Teacher Respondents				Total
1	Have you encountered problems of transmission pace in which there were difficult to understand the concepts of days' lesson?		Yes		No	**223** **100**
		No	177		46	
		%	79.37		20.63	
2	How frequent you encountered problems?		More Frequent	Frequent	Less frequent	**223** **100**
		No	28	122	27	
		%	15.82	68.93	15.25	
3	How often students do class activities in group during transmission?		Always	Sometimes	Never	**223** **100**
		No	0	147	76	
		%	0	65.92	34.08	
4	How do you rate the difficulty that the students face to take notes from the TV screen?		Difficult	Less difficult	Not difficult	**223** **100**
		No	202	21	0	
		%	90.58	9.42	0	

It is clear that there are different factors that affect the proper utilization of plasma TV. As it can be seen from the above table, 79.37% of the teachers responded that they encountered the problems of transmission pace in which they couldn't understand the concepts of the day's lesson. During the interview, one teacher participant forwarded her idea regarding the speed of transmission as follow:

> *Frankly speaking, the speed of transmission is a great challenge for most teachers including me. Most of the TV-teachers are native speakers, so it is difficult to understand their accent. Besides, they speak faster than the classroom teachers' levels of understanding … even sometimes I couldn't grasp what the TV-teacher said. Unexpectedly, the students asked me to explain the concept of the day's lessons. 20/8/04*

From this, one can understand that they failed to understand the accents of TV-teachers and failed to attend the program due to fast speed became the challenge of our time for teachers to implement plasma TV in secondary schools. On the other hand, 20.63% of teachers responded that, they didn't fail to understand the concepts of days' lesson due to transmission speed. One of the teacher participants forwarded her idea as follow:

> *Personally, I don't consider the speakers' accents as difficulty, rather teachers' readiness and willingness for change seemed very poor. Today, where there is ample availability of various English media, to talk about language constraint is unbelievable, particularly for those teachers who live in Addis Ababa. 23/8/04*

According to the view of this participant, most teachers didn't give due consideration to improve their language abilities. In fact the researcher attended various subjects which transmitted via TV and confirmed that the speed of transmission was out of control. Full of notes appeared on the TV-screen but as I began to write down it disappeared before I completed. Similarly, the pronunciations of some TV- teachers were difficult to understand. Almost all students neither taking note nor listening to the broadcast. In the classroom

situation where the teachers did not have time to deal with students' expressiveness skill, presentation skill, reasoning skills and others, it is impossible to say students learn properly, unless we solve these problems, the result would be wastage of time and materials rather than teaching-learning.

Regarding the group work, most teachers responded that the students didn't do class activities in group during the transmissions. Accordingly, 65.92% of teacher respondents pointed that students sometimes do class activities in group; where as 34.08% of them stated that the students never do class activities in group. Khine (2006). Suggested that humans naturally work in groups; they seek out others to help them to solve certain problem, to share ideas and to perform certain tasks but plasma- TV ignores this marvelous learning method. In the same way, Kedir (2006) pointed that education is a collaborative and collective tasks rather than transferring knowledge from pre-designed sources to recipients (students). From this, one can understand that group work is a pre- existing human performance that plays a vital role in teaching. However, almost all teachers confirmed the value of group work was very low in class due to the plasma pressure.

On the other hand, 90.58% of the teacher respondents said that taking note from plasma screen is difficult, whereas 9.42% of the teacher respondents suggested that taking note from plasma screen is less difficult but none of them said taking note from plasma screen isn't difficult. However, if the students couldn't take note properly it is impossible to expect good end result because taking note enabled the students to revise, reshape as well as to get deep understanding of a given lesson. Concerning this, one teacher participant said.

> *The notes of most students couldn't be read easily because they wrote down tattered note from the screen and their exercise books were full of blank space because when the program disappeared the students jumped the spaces due to the speed of transmission. 21/8/04*

From this, it is possible to say that the speed of transmission highly affecting the students learning abilities and their academic achievement since they couldn't take coherent notes.

The teachers' questionnaire generated so many ideas, comments, views and suggestions regarding to the teaching-learning through satellite TV and its challenges. Accordingly, the main challenges or factors that hindered the proper utilization of plasma TV were summarized as follow: most teaches didn't take short term training, orientation and didn't get chance to participate in any panel discussion concerning the use of plasma TV. To the worst, most teachers said that they entered the classroom not to teach but to keep the rule of the schools. They entered the classroom only to turn on and turn off the plasma TV or to take attendance. Similarly, most teachers stated that plasma has no influential power in developing students' performing abilities, responsibilities and their learning curiosities rather it is a means of cultivating passive generation.

Plasma TV focuses on the transmission of chunks of concepts hurriedly by ignoring learners' individual difference and teachers' autonomies of employing various teaching methods. Some TV teachers were foreigners; their accent is ambiguous and difficult to understand. In addition to this, the speed of transmission was out of control, it was rigid throughout the year. This excessive rigidity of transmission leads students and teachers to inattention of promoting meaningful and constructive teaching-learning process.

According to Amare (1988), excessive rigidity could lead to a waste of time. Initially, the aim of using plasma TV was to have uniform teaching-learning process by narrowing the gap between poor and rich, nearest and remotest and urban and rural. Of course, there is a uniform transmission throughout the country from the center but no uniform benefits from it, let alone throughout the country even in the classroom due to individual difference. Sometimes, teacher's guide, student's text book and the transmission mismatched.

Moreover, plasma did not allow cooperative and collaborative teaching-learning method and diminished teachers' creative abilities as that of students. In the same way, the students couldn't take note properly, they wrote down tattered and illegible notes.

4.2. Analysis of students' questionnaire

4.2.1. Students Background Characteristics

Both grade nine and grade ten Students were target population. Out of 1250 students from both grades, 692(55.36%) of them were female and 558(44.64%) of them were male student. Accordingly, the number of female students is more than the number of male students. All students were categorized between 15-19 age groups.

4.2.2. Teachers' Contributions in Facilitating Teaching-Learning Process

This section dealt with the students' responses concerning teachers' contributions to learning.

Table 6: student's response regarding teachers' contribution in facilitating Teaching –learning processes

No	Activities	Students' responses										Total	
		SA		AG		UN		SD		D			
		No	%	No	%	No	%	No	%	No	%		
1	Teachers write some important formulas and definitions on the black board	37	2.96	152	12.16	7	0.56	133	10.64	921	73.65	**1250**	**100%**
2	Teachers encourage the students to follow attentively and interestingly	96	7.68	281	22.48	11	0.88	97	7.76	765	61.2	**1250**	**100%**
3	The teachers use different teaching methods to address the needs of individual learners	28	2.24	85	6.8	0	0	515	41.2	622	49.76	**1250**	**100%**
4	Teachers help the students by explain un clear ideas during the transmission	96	7.68	127	10.16	0	O	196	15.68	831	66.48	**1250**	**001%**

As it can be seen table 6, 73.68% of the students responded that the teachers didn't write some important formulas and definitions on the blackboard and 10.64% of the students also showed their strong disagreements, whereas 15.12%

of them showed their agreements plus strong agreements while 0.56% of them said undecided. Accordingly, most teachers didn't write some important formulas and definition which were very important and half ways to teaching. Teachers are the main actors to implement the plasma TV-effectively but most of them imposed all responsibilities on the plasma itself by forgetting their own roles. Concerning this, of one the student said,

> *As to me, most teachers came to class without reading or preparing what they teach because they entered class with bare hands without holding notes or a piece of paper..they did not write something on the blackboard till the transmission starts and they took their roles in teaching to zero level though they were required to perform certain tasks*. 13/8/04

This indicates that the teachers didn't use properly the time given to them before broadcast rather they simply wait the start of transmission. If teachers didn't write some important points of the days' lesson, they only presented in the class to be formal not to change the form of education

Similarly, 61.2% and 7.76% of the student respondents indicated their disagreement plus strong disagreement to the statement which says teachers encourage the students to follow the lesson attentively, whereas 22.48% and 7.68% of them showed their agreement and strong agreement respectively. From this, one can say that most teachers didn't motivate and encourage their students to follow the lesson attentively though motivation is an engine tool to draw the students' attention towards the lesson. The researcher himself realized that as the teachers didn't motivate the learners when he was observing classrooms. Some students were talking with each other and some of them were laid down on the table while few of them taking note. Some teachers simply watched the program with frown faces and there were no social interaction among students, TV-teachers and classroom teachers.

On the other hand, 49.76% of the students disagreed the idea which says teachers use different teaching methods to address the needs of individual learners while 41.2% of them showed their strong disagreement. Contrary, 6.8% of the student respondents agreed that teachers use different teaching methods to address the needs of individual learners while 2.24% of them strongly agreed. Based on this data, majority of secondary school teachers didn't conduct various teaching methods to address the needs of individual learners while few of them did.

However, Geoff (2004) argued that the students learnt better when the teachers use different teaching methods that benefit all learners with different backgrounds. In fact, it is difficult to criticize teachers not to use different teaching methods due to plasma pressure. This means, the classroom teachers were forced to do what they were told to do by plasma teachers.

Regarding to explaining unclear ideas, 66.48% of the student respondents disagreed the statement which says teachers help the students by explaining unclear ideas and 15.68% of them showed their strong disagreement, whereas 10.16% and 7.68% of the student respondents explained their agreement and strong agreement respectively. It is clear that, the students come to school to know what they don't know previously as well as to enrich their previous knowledge. However, the data collected from the majority of student respondents contradict with this idea because unclear ideas were not explained by classroom teachers. According to Steinberg (1968) through effective utilization of the available programs, the teacher can make the lesson more meaningful by explaining unclear ideas for the students. This is to mean that the teachers are expected to use their maximum efforts to make the lesson more meaningfu**l.**

4.2.3. Students' attitudes and inters towards plasma TV.

This section deals with the students responses concerning the raised issues**.**

Table 7: Students' attitudes and interests towards plasma TV.

No	Activities	Students' responses										Total	
		SA		AG		UN		SD		D			
		No	%	No	%	No	%	No	%	No	%		
1	Plasma teaching method meets the needs of individual learner	38	3.04	98	7.84	12	0.96	225	20.4	847	67.76	**1250**	**001%**
2	TV teaching method draws students'and motivates them to follow the lesson	120	9.6	342	27.36	0	0	129	10.32	659	52.72		
3	Student learn more from TV-teacher than from classroom teacher	108	8.64	136	10.88	0	0	417	33.36	589	47.12	**1250**	**001%**
4	For me TV-teaching method is very interesting to learn from it.	68	5.44	211	16.88	0	O	352	28.16	619	49.52		

Basically, the above statements were formulated to assess the students' fundamental concepts and perception concerning the plasma TV. This part is very important since interest and attitude play great roles for the success or failure of a given teaching-learning process.

As it can be seen form table 6, 7.84% and 3.04 % of the student respondents showed their agreement and strong agreement that the plasma-teaching method meets the needs of individual learners while 67.76% and 20.4% of them revealed their disagreement and strong disagreement respectively. From this, one can understand that only few outstanding students got benefits while the majorities were victimized because of its rigidity and inflexibility of transmission. Though there are various methods of teaching, the plasma always follow the solo teaching method (lecture) which oppresses the needs of individual learners.

Regarding to this, Heinich et al (1993) pointed that TV-teaching is a single teaching method though there are different learners who require different treatments. Accordingly, students with mental retardation require high structured learning situations while visually impaired learners need different teaching methods that enabled them to catch specific purposes. On the other hand, students with standard reading kills need printed media like books, news papers, magazine etc. "variety is a spice of life." Hence, by no means plasma TV couldn't meet the needs of individual learners since there different learners with different backgrounds in classroom. Similarly, a student participant said;

> *Classroom teachers never use different teaching methods; they totally left everything for plasma TV. We couldn't get any meaningful and attractive learning either from TV-teachers or classroom teachers and we are in between.... there are no searching and doing, rather simply watching and listening like that of church ceremony. 13/8/04*

On the other hand, 52.72% and 10.32% of the teachers showed their disagreement and strong disagreement respectively to the statement which says TV -teaching method draws students' attention and motivates them to follow the lesson attentively while 27.36% and 9.6% showed their agreement plus strong agreement. Form this; it is possible to say that TV-teaching method demotivates the students to follow the lesson interestingly as the majority of the student respondents. The students are highly motivated when the program or teaching method appeals to individual learner and when the students are able to communicate with the teachers. However, plasma TV-use one way communication in which students can't interact with teachers. Sharma (1994) suggested that there is no way for both students and teachers for discussion and reflection on the lesson with television teachers.

In the preference of better teachers, 47.12% of the students showed their disagreement on the statement which says students learn more from TV-teachers than classroom teachers while 33.36% of them showed their strong disagreement, where as 10.88% and 8.64% of the student respondents revealed their agreement and strong agreement respectively that, the students learn more from TV- teacher than classroom teacher. Accordingly, majority of the student respondents agreed that they learn more from classroom teacher than TV-teacher. As mentioned earlier, TV- teachers have no opportunity to interact with students while classroom teachers can interact with the students and can assess their needs. Besides, the accents of local teachers are easily understandable for the students, may be due to this most students preferred classroom teachers.

Regarding to the students-interest, 49.52% and 28.16% of the student respondents pointed their disagreement and strong disagreement respectively to the idea that says TV- teaching is very interesting method, while 16.88% and 5.44% of them showed their agreement plus strong agreement respectively.

According to this data, most students lost the appetite of learning through plasma TV. During the classroom observation, the researcher himself ensured that most students carelessly attend the program by demonstrating downcast faces towards plasma TV. In fact, interest is a precursor thing in teaching-learning process because people say, “If there is a will, there is a way.”

4.2.4. Teaching-Learning Through Plasma And Its Difficulties.

Table 8: student's response to the teaching –learning through plasma and its difficulties

No	Activities	Students' responses										Total	
		SA		AG		UN		SD		D			
		No	%	No	%	No	%	No	%	No	%		
1	I can understand the language of TV teacher with difficulty	413	33.04	525	42	0	0	89	7.12	223	17.84	**1250**	
2	I take note from TV screen easily.	99	7.92	183	14.64	0	0	295	23.6	673	53.84	**100%**	
3	Time given for each activity (presentation, practice and summarization) is sufficient.	102	8.16	219	17.52	0	0	352	28.16	577	46.16	**1250**	
4	Plasma teaching method initiates students' critical thinking and reasoning abilities.	28	2.24	142	11.36	0	O	453	36.24	627	50.16	**001%**	

As it is shown in table 7, 42% of the student respondents agreed that they understand the language of TV- teacher with difficulty while 33.04% of them showed their strong agreements. On the other hand, 17.54% of the student respondents agreed that they can understand the language of TV- teachers with no difficulty while 7.12% of them showed their strong agreements. This indicates that most students couldn't understand the language of TV- teachers, while few of them can understand the language of TV-teachers. Therefore, it is impossible to talk the presence of meaningful teaching-learning process where there is no effective communication among TV- teacher, classroom teacher and students.

In the same way, one of the great temptation encountered students while learning though plasma TV is taking note. This is not to mean that the TV-note is illegible rather taking note is difficult due to its fast speed. To ensure this, 53.84% and 23.6% of the student respondents showed their disagreement plus strong disagreement respectively to the statement which says I take note from TV-screen easily, whereas 14.64% and 7.92% indicated their agreement and strong agreement respectively. Accordingly, majority of the students suggested that taking note from TV- screen is difficult. On the Contrary, few of them said that taking note from TV screen is easy.

On the other hand, 46.16% and 28.16% of the student respondents revealed their disagreement and strong disagreement to the statement says, time given for each activity is sufficient while 17.52% and 8.16% of them showed their agreement and strong agreement respectively. From this, one can understand that the time given for each activity is not sufficient. It is obvious that most students accustomed to "learning by doing" rather than listening and watching TV which is a new experience for them. Therefore, they are required to get sufficient time to practice effectively.

Finally, the students are requested to suggest whether plasma TV initiates the students' critical thinking and reasoning abilities. Accordingly, 50.10% of the

student respondents disagreed that plasma teaching-learning method not initiates students' critical thinking and reasoning abilities, while 36.24% of them showed their strong disagreement, whereas 11.36% and 2.24% of the student respondents showed their agreement and strong agreement respectively. From this, one can say that, plasma teaching-learning method doesn't initiate students' critical thinking and reasoning abilities. Kedir (2006), TV- teaching does not require much mental efforts such as critical thinking and reasoning abilities. The students' questionnaires dig out those factors that affect the effective implementation of plasma TV. Therefore, the main factors or problems obtained from the students were summarized as follow: According to the responses of most students, teachers did not write some important formulas and definitions on the blackboard. Also they did not motivate the students to follow the lesson attentively. However, important formulas and definition of words are the core-concepts of the given lesson, and the teachers are expected to motivate the students. The teachers failed to use different teaching methods; they simply attended the plasma program passively like that of students and some unclear ideas were not explained for the students by the teachers.

Besides, most students confirmed that plasma-teaching method doesn't meet the needs of individual learner, draws students' attention and they are not interesting to learn from it. As a result, they preferred classroom teachers to TV-teachers. Most students couldn't understand the languages of TV-teachers and they faced difficulty of taking note due to uncontrolled speed of plasma TV. On the other hand, the time given for each activity (presentation, practice and summarization) is not sufficient and, also they suggested that plasma TV teaching doesn't initiate students' critical thinking and reasoning abilities. As a result, most students developed negative attitudes towards plasma TV.

4.3. Lack of Clarity

Clarity is a central point for learning. Human brain comprehends, reshapes and reflects only what is clearly penetrated to it. Without clarity, the brain either coins wrong message or completely avoids it. However, the plasma TV developers failed to understand the normal brain functions because the roles and functions of plasma TV confined to only information transmission rather than its digestion for students. Regarding clarity, a student fictitiously named Obang forwarded his ideas as follow:

> *If we wanted to stay at home, our parents and home room teachers would follow us attentively and if we came to school, we couldn't get any clear and meaningful ideas from TV-teachers because their pronunciations could not be grasped not only for students but also for teachers. As a result, I preferred to read my books intensively since there was no option to ask TV-teachers for clarification. 20/8/04*

From this, one can conclude that teaching-learning process in secondary schools seemed very difficult since there was no effective communication or understating between televised teacher and students. It is difficult to expect fruitful result from students since numerous ambiguous points are thrown to them from TV teachers. This is why Tewodros (2008) suggested that using plasma TV is technologically and theoretically very important but practically difficult. We can't feed a bread of dream though we have great ambitions. Therefore, having plasma TV in classroom is not enough because it is not a magic work which is believed to realize all desires without human efforts, rather it is a device intended to bring active learning through effective utilization.

4.4. Weakness in Promoting Active Learning

As it is mentioned earlier, active learning occurs when the students construct their own world meaningfully and involve in the learning process actively. However, as I observed the actual class room environment, most students followed the program passively and carelessly. Some students laid down on the table and some of them talking to each other and few of them struggling with plasma. Talking note was quite difficult for students and they had no chance of exploring and constructing their own world.

> *Plasma TV is very important to promote active learning if it is used as teaching aid and if the teacher can manipulate and develop its program as she/he likes but now, the reality is paradox since it pressurizes the teachers not to use various teaching methods. Teacher 17/8/04*

From this, one can suggest that, the teachers are in controlled condition under plasma pressure which doesn't allow them to use various teaching methods so as to promote active learning in class room. The researcher confirmed that classroom teachers had hardly any time for preparation, asking questions, discussing with students and encouraging students to practice or think individually or in group.

4.5. Lack of Awareness

Almost all teachers didn't get short term training or orientation regarding plasma TV. They simply joined teaching through plasma TV without taking training. To support this idea, Tewodros (2008) suggested that there were no sufficient awareness and assessment done before plasma introduced to our country. Some teachers told me that they couldn't operate and search program. In the same way, the students were not trained or oriented how to go hand in hand with plasma TV. Particularly, grade nine students faced great challenges from double

angles. First, learning all subjects in English with absence of local languages and the transition from face to face teaching to plasma teaching which was not familiar to them previously.

On the other hand, as the finding results revealed there was no sustained research work to solve the existing problems in the selected schools. This could be concluded that plasma might load some degree of carelessness in the mind of teachers not to conduct various researches to solve those problems required researches to be solved. Also, on the side of students there were no effective revivals for learning because the learners came to educational setting with many different experiences, ideas and approaches were forced to learn only through plasma TV.

CHAPTER FIVE

5. Summary, Conclusion and Recommendation

5.1. Summary

The main purpose of this study was to assess teaching-learning through satellite TV and its challenges in selected secondary schools of Addis Ababa. Taking this as a base, the study attempted to find answer for the following basic questions:

Do the teachers have necessary skills to use satellite TV to teach effectively?

Do teachers and students have positive attitudes towards satellite TV?

What are the major factors that influence the implementation of teaching-learning through satellite TV?

Does the plasma teaching method really encourage active learning?

What are the possible solutions to minimize as well as to tackle the identified problems in secondary schools while teaching and learning through satellite TV?

In order to address these basic questions, data were collected from four selected secondary schools of Addis Ababa from grade nine and grade ten teachers and students through questionnaires, in-depth interviews, observation and document analysis. The respondents were randomly selected by using lottery method while the participants were purposely selected on the basis of cooperativeness, experiences and competency. Accordingly, one thousand two hundred fifty-nine students and two hundred twenty-seven teachers were involved but only 1250 students and 223 teachers correctly filled and returned the questionnaires. Due to the absence of plasma TV in private schools, only government schools got the chance to participate. In-depth interview was

conducted with selected teachers and students. The researcher also observed the actual classroom environment by preparing observation checklist.

The data collected from teachers and students through questionnaires were analyzed quantitatively using percentage as statistical method, where as the data collected through, interviews, open-ended questions, observation and document analysis were analyzed qualitatively in a narrative form. According to teachers' responses, 77.13% of them didn't take training on how to implement plasma TV, 65.47% the teaches disagree that plasma TV teaching method didn't promote effective teaching and active learning, 65.47% of them responded that student's text, teacher's guide and plasma transmission less related, while 6.28% of them said unrelated.

On the other hand, 85.65% of the teachers suggested that the time given for each activity was insufficient and 58.74% of teachers preferred to use cooperative and collaborative teaching method if they were given a chance to use. Similarly, 68.16% of the teachers responded that, plasma TV was not helpful to enhance classroom instruction and 87.89% of them revealed that plasma teaching method didn't promote students' active participation in classroom activities and the students had low interest to learn by plasma TV. To the worst, 79.37% of the teachers couldn't understand clearly the concepts of the days' lesson, due to the speed of transmission and 90.58% of them confirmed that taking note from the screen is difficult.

73.65% of the students revealed that the teachers didn't write some important formulas and definition of words. The students also confirmed that the teachers didn't encourage them to follow the lesson attentively. 66.48% of the students agreed that the teachers didn't explain unclear ideas and 67.76% of them suggested that plasma TV teaching method couldn't meet the needs of individual learner. Similarly, 86% of the students agreed that the accents of TV teachers couldn't be grasped for them and 77% of the students showed their agreement

and strong agreement that taking note from the screen was difficult and they also suggested that plasma TV didn't foster students' critical thinking and reasoning abilities.

5.2. Conclusion

The study disclosed many issues related to plasma TV and many factors that hindered the proper utilization of plasma TV. Accordingly, except few outstanding students and few teachers, the rest had negative attitudes towards plasma TV. Comparatively, grade ten students less victimized and had positive perception of plasma TV. TV teachers didn't consider individual difference in classroom. As a result, most students lost interest of learning through plasma TV and the speed of transmission was another factor which aggravated students' hatred. Most students and some teachers couldn't understand the accents of TV-teachers. Taking-note from TV screen was another headache for students. Most teachers didn't take training or orientation on how to use plasma TV even they couldn't search if the program disappeared from the screen.

As stated by many scholars and as intended by plasma TV developers, the plasma couldn't catch the students' attention towards the lesson and it couldn't generate their interests of learning as the study showed. Due to this, many researchers strongly oppose plasma teaching method while few of them support it. However, the researcher claimed that unless plasma TV properly utilized, it cannot assure active learning and effective teaching.

The plasma TV couldn't promote active learning and effective teaching and it didn't give room for students' participation and group works. The students' language skills were very low due to this they couldn't understand the concepts of plasma TV lesson. On the other hand, plasma teaching method didn't foster students' critical thinking and reasoning abilities rather it encouraged students to develop over simplified world by providing concrete objects. The allocated time

for each activity was not sufficient. Even though the plasma TV has many advantages in teaching- learning process, its impacts seen to outweigh its benefits, may be due to the way in which the instructional TV is integrated into the classroom.

5.3. Recommendation

The researcher suggested the following major points of recommendations to overcome or to solve the disclosed problems in the study. The plasma TV developer and other concerned bodies should make some sorts of modification on the speed of transmission so as to make the transmission appropriate for students and teachers. The ministry of education should replace native TV teachers by local teachers or should select understandable accents for transmission medium which benefit all students and teachers. The teachers should take practical training on plasma TV in teachers' training institution before they start teaching.

Addis Ababa educational bureau should create short term training and give advance orientation for teachers and students every year though expensive to ensure the quality of education. All Addis Ababa secondary schools should establish English clubs to improve students' language skills and Addis Ababa education bureau should give materials and technical supports for each club. Classroom teachers should create conducive learning atmosphere by using different mechanisms and they should use time allocated effectively rather than leaving everything for plasma. The teachers should write and explain some important formulas and definitions for students and they should give hand outs for students. The students should prepare themselves and responsible to learn from plasma TV.

Teachers should conduct frequent researches to solve the existed problems in their schools. The TV teachers should check the transmission to be in line with

student's text and teacher's guide before broadcast. Similarly, the students should get the opportunity to re-attend the transmitted program or they should be provided with plasma guide the schools should reserve the program transmitted through CD, video cassette or printed materials. No matter how difficult it is, great awareness should be made for teachers, students and the community at large concerning plasma TV.

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Appendix A

Addis Ababa University

Institute of Education Research

Graduate program

Questionnaire to be filled by teacher

Dear teacher!

The purpose of this questionnaire is to collect relevant information on **Teaching-Learning through Satellite Television (plasma) and Its Challenges in Selected Secondary Schools of Addis Ababa**. Therefore, it is to get your opinion and experience on the issue. This information is purely used for research purpose. To this end, your honest and straight forward response is very important and would contribute highly to the success of the study

Writing your name is not necessary

Thank you in Advance!

I. Back ground information

1.1 Name of the school _____

1.2 Sex :Male ☐ Female ☐

1.3 Age :

20- 25☐ 26 – 30 ☐

41 – 45 ☐ 46 - 50☐

1.4 Level of Education: Diploma ☐ Degree ☐ Masters Degree ☐

Others ☐

1.5 Service years_____

0 - 10☐ 11-20 ☐ 21-30☐ 31-40 ☐ 41-50 ☐

II. Implementation of plasma television put (√) mark on the statement /word that you choose most for each of the following questions?

2.1 How often do you receive training related to the utilization of instructional television?

Sometimes ☐ Rarely ☐ Never ☐

2.2 How often do you participate in panel discussion or seminar on plasma TV-teaching issues?

Yes ☐ No ☐

2.3 How often do you participate in panel discussion or seminar on plasma TV-teaching issues?

Sometimes ☐ Rarely ☐ Never ☐

2.4 Plasma TV-teaching methods promotes effective teaching and active learning

Agree ☐ Disagree ☐ I don't know ☐

2.5. To what extent is the student textbook, teacher's guide and the plasma transmission related?

Related ☐ Less related ☐ Unrelated ☐

2.6 How do you rate the time given for introduction and revision of the day's lesson?

More sufficient ☐ Sufficient ☐ Insufficient ☐

2.7 If you were given a chance to select the way of teaching learning process, which would you prefer?

Collaborative and cooperative ☐

Televised teaching ☐

Face-to-face teaching, more time for television ☐

Face-to-face teaching, more time for classroom teacher ☐

III. Student learning

3.1 Do you think the TV programs are helpful for enhancing classroom instruction?

Yes ☐ No ☐

If your answer for question 3.1 is 'No', from your experience what could you say the reasons? _____

_____

3.2 Do you believe that students learn from plasma as face-to-face teaching method?

Learn more ☐ learn less ☐ Learn the same ☐

3.3 How do you rate the students' responsibilities to learn from plasma TV?

Responsible ☐ less responsible ☐ not responsible ☐

3.4 How do you rate the interest of students to learn by plasma?

More interested ☐ less interested ☐ not interested ☐

3.5 Do you think that plasma-teaching method improves students' achievement?

Yes ☐ No ☐

3.6 Do you believe that the TV transmission catches the attention of Yes

Yes ☐ No ☐

3.7 How do you rate the language competency of your students to understand message from the television teacher?

Excellent ☐ Very good ☐ Good ☐ Fair ☐ unsatisfactory ☐

IV. Problems encountered during the utilization of plasma TV

4.1 Have you encountered problems of transmission pace in which there were difficult to understand the concepts of the days' lesson?

Yes ☐ No ☐

4.2 If your answer to question 4.2 is "yes", how frequent is that?

More frequent ☐ frequent ☐ Less frequent ☐

4.3 How often students do class activities in group during the transmission?

Always ☐ sometimes ☐ Never ☐

4.4 How do you rate the difficulty that students face to take notes from the TV screen?

Difficult ☐ less difficult ☐ not difficult ☐

Please add comments on plasma TV teaching -learning process and its problems

_____

_____

_____

Appendix B

Addis Ababa University

Institute of Education Research

Graduate program

Questionnaire to be filled by student

The purpose of this questionnaire is to collect relevant information on educational satellite Television program (plasma) and its challenges in selected secondary schools of Addis Ababa. Therefore, it is to gent your opinion and experience on the issue. This information is purely used for research purpose. To this end, your honest and straight forward response is very important and would contribute highly to the success of the study

Writing your name is not necessary

Thank you in Advance

Part I: Personal Data

1.1 Grade level _____

1.2 Sex _____

1.3 Name of the school _____

Part II Indicate the extent to which your teachers carry out these activities while using satellite Television program by putting a tick (√) against each item

SA = strongly agree UD = undecided SD = strongly disagree

A = agree D = Disagree

No	Activities	D	SD	UD	A	SA
Ii Teachers' contribution in facilitating teaching –learning process						
2.1	The teachers write some important formulas and definitions on the black board					
2.2	The teachers encourage the students to follow the lesson attentively and interestingly					
2.3	The teachers use different teaching methods to address the needs of individual learners					
2.4	The teachers help the students by expanding unclear ideas during the transmission					
Iii Students' attitude and interest towards plasma						
3.1	Plasma teaching method meets the needs of individual learner					
3.2	TV-teaching method draws students' attention and motivation them to follow the lesson attentively					
3.3	students learn more from TV-teacher than classroom teacher					
3.4	For me TV-teaching methods is very interesting to learn from it					
Iv Teaching- learning through plasma and its difficulties						
4.1	I can understand the language if TV-teacher with difficulty					
4.2	In take note from TV –screen easily					
4.3	Time given for each activity (presentation, practice and summarization) is sufficient					
4.4	Plasma teaching-learning method initiates students' critical thinking and reasoning abilities					

Please comment if you have any other ideas about plasma teaching-learning problems in your school

_____

Appendix C

Interview with teachers; questions posed during the interview

1. How do you explain the contribution of plasma TV in improving students' academic achievement?
2. Do you think that plasma teaching method encourages active learning method?
3. What are the problems you encountered during transmission? Why?
4. Some scholars agree that necessary training should be given to the teachers on how to use /operate/ plasma. How do you see this in context of your school?
5. How do you describe the participation of the students and yours during transmission?
6. What do you do when the transmission is failed? What do students feel?
7. How could you explain your interest towards teaching through plasma TV? And what about the students' interests?
8. Is there any research conducted on plasma TV in your school? If "yes" what the improvement did you see then?
9. How do you illustrate the pace and the language of transmission?

Appendix D

Interview with student; questions posed during the interview

1. Are you interested to learn from plasma TV? Why?
2. Do you think that note taking is difficult during transmission?
3. How do you get the correct clarification for unclear ideas or questions?
4. What are the most difficult problems you face during transmission?
5. Which do you prefer; learning from classroom teacher or televised teacher? Why?
6. Some scholars argue that television teaching and learning method promote active learning method by drawing students' attention towards the lesson. What is your opinion on this idea?
7. How could you explain yours and the other students' attitudes towards plasma TV?
8. Do the teachers properly operate the plasma TV if any failure happens during transmission?
9. How do you reflect the speed and the language of transmission?

Appendix E

Observation check List

Date _____

Grade and section _____

Subject observed _____

Total № of students' _____

Teacher's qualification _____ service year _____

The teachers use plasma guide and lesson plan
Yes ☐ No ☐
The teachers use the time allowed before and after transmission properly
Yes ☐ No ☐
The teachers and students have smile face during transmission of the lessons

Yes ☐ No ☐
The students discuss with each other and the classroom teachers facilitate conditions for discussion

Yes No ☐
The students actively participate in classroom activities

Yes ☐ No ☐
The students take note from plasma TV with less difficult

Yes ☐ No ☐
The classroom atmosphere/ discipline/ is suitable for teaching learning activities

Yes ☐ No ☐
The teachers use interactive group and pair works

Yes ☐ No
The classroom teachers explain the ideas that are not clear for students in different ways

Yes ☐ No ☐
There are different attempts that teachers use to solve classroom problems

Yes ☐ No ☐