

**THE STATUS OF EDUCATIONAL RESEARCH IN EAST
GOJJAM SECONDARY SCHOOLS**

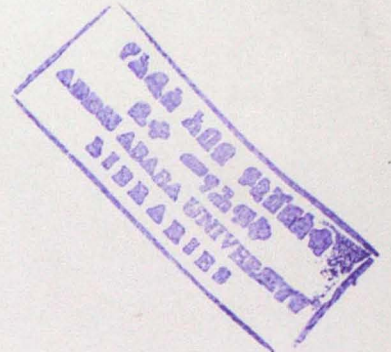
BY

DESALEGN TIBEBU MEKONNEN

**A Thesis Submitted to the School of Graduate Studies of Addis Ababa
University in Partial Fulfillment of the Requirements for the Degree of MA in
Educational Research and Development in Institute of Educational Research**

ADDIS ABABA UNIVERSITY

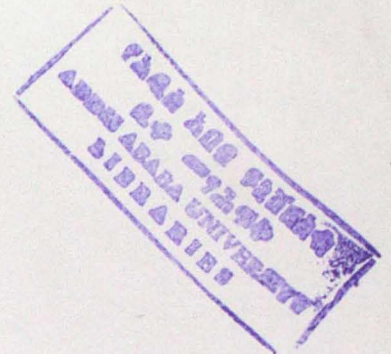
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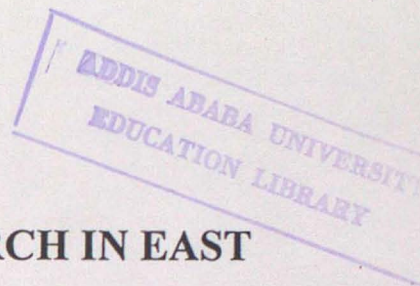
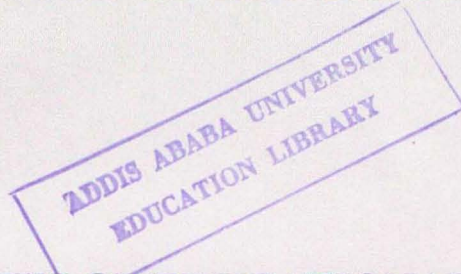
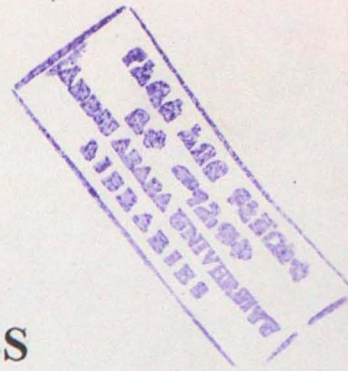


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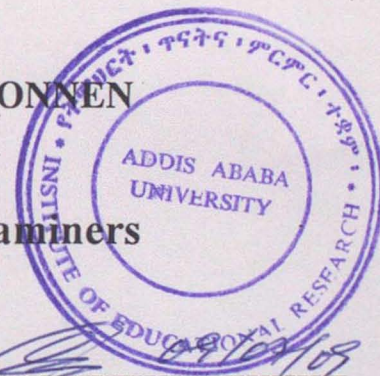
ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
INSTITUTE OF EDUCATIONAL RESEARCH



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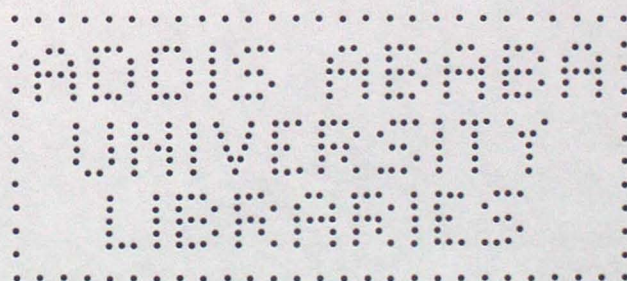
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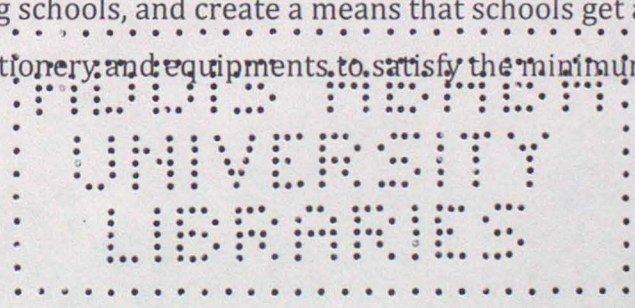
List of Acronyms

AED	Academy for Educational Development
CPD	Continuous Professional Development.
<i>Df</i>	Degree of Freedom
EGSS	East Gojjam Secondary Schools
ETP	Ethiopian Education and Training Policy
HPE	Health and Physical Education
MOE	Ministry of Education
SIP	School Improvement Program



Abstract

This study was aimed to describe and analyze teachers' involvement in educational research in Eastern Gojjam Secondary Schools and to investigate factors that affect their involvement in educational research. To achieve these purposes, a descriptive survey research method was employed. The participants were 334 teachers from 7 secondary schools, 20 directors, woreda and zone educational officers. The data were analyzed using percentages, means, χ^2 -test, t-test and/or one-way ANOVA. The data secured through interview were analyzed qualitatively. The study found out that most of the teachers have attended research courses at universities/colleges. The trend of training teachers in seminars, workshops, or in-service training programs in educational research was very low and the involvement teachers in educational research were also low. There were no convenient channels of communicating research outputs. The majority of teachers had medium personal educational research competency and favorable attitude toward educational research. Teachers were not rendered appropriate support and recognition. There were no functional research coordinating unit/structure in the zone, there were lack of budget allocation, relevant educational literatures in the libraries, equipments and other facilities which help doing educational research. It is suggested that functional research coordinating unit should be organized from schools to regional level that train teachers and develop experience-sharing habits among schools, and create a means that schools get at least relevant educational literatures, stationery, and equipments, to satisfy the minimum research facilities.



CHAPTER 1: INTRODUCTION

This chapter consists of background of the study, statement of the problem, objectives of the study, basic research questions, significance of the study, delimitation of the study, limitation of the study and operational definitions.

1.1. Background of the Study

Research is a systematic attempt to obtain answer to meaningful questions about phenomena or event through the application of scientific procedures (Koul, 2006). It is one of the ways which helps human beings to pin point solutions for problems that they are facing in their life. People engage in research activities when they face problems and lack knowledge about certain things. Thus, to find solutions for the problems, they need to identify the cause of the problems by critically observing their environment, asking and discussing about the problem. In this process they formulate hypothesis, collect evidence, analyze and interpret the evidence so as to reach on certain conclusions (Yalew, 2006).

According to Yalew (2006) research is undertaken to develop new ideas, solve problems and evaluate programs. Payne and Pyne (2004) noted that two main reasons why people do research: intellectual challenge: - the need to fill the gap in knowledge or to test currently accepted theories against new evidences and alleviate problems or to improve productivity.

Research helps to evaluate the contemporary truth for any natural and social aspects in the world. Therefore, it seems apparent that research activity and its result serve as a source of new knowledge, change and improvement through examining the existing truth. Any truth is open for challenge through various investigations for further verification (Mosson & Bromble, 1997).

Cohen and Mannion (1994), and Koul (2006) noted that educational research is the process of arriving at dependable solution to educational problems through the application of scientific method by systematic collection, analysis and interpretation of data in planned ways. Research plays a great role in the improvement of educational activities by introducing effective and efficient ways of doing things. So research is considered as a key to improve educational problems and develop new techniques (Courtney, 1965). The teaching-learning processes become effective, up to date and successful if and only if it is supported by educational research. In relation to this Hopkins (1993) wrote:

The purpose of educational research is to focus on continuous search for enrichment and improvement of educational process (policy making, implementation, teaching and learning), the overall socio- economic development effort, as well as the improvement of skill, insight, knowledge and value of the individual researcher, teachers and policy-maker (p.7).

Furthermore, educational research is one type of social research which contributes to the quality of education; policy decision-making and improvement of educational practices by identifying and evaluating the weak and strong points of the teaching-learning process, educational organizations, structure and administrations against the objectives.

Educational research describes, explains, analyzes and interprets educational phenomena. It also helps teachers and educators to assess and reflect their teaching-learning process, explore and test new ideas, theories, educational material and methods of teaching. It also contributes toward the cognitive, skill and emotional development of the individual as well as the development of responsible, achievement-oriented, and problem-solving capabilities (Habtamu, 2000 & Gemechu, 2006).

In this regard, one of the proposed strategies to meet the challenges on Ethiopian education by Ethiopian Education and Training Policy (ETP) in 1994 was nexus between education, training, research and development (TGE, 1994). With reference to research and

development, the ETP states that “research of practical societal impact will be given priority and the necessary steps will also be taken to facilitate the coordinated efforts of all those concerned” (p.27). School teachers, apart from their responsibility of teaching, are expected to conduct educational research in order to solve the day-to-day practical problems of education (AED, 2006). Therefore, teachers should be inquisitive in identifying problems and suggesting solutions through continuous educational research efforts in areas that have direct or indirect impact on education. Supporting this idea Teshome (2004) states that, “it is essential that research be compulsory and counted in the assessment of each academic staff” (p.17). This shows that research is an integral component of teaching where teachers shall consider it as one of their regular duties and responsibilities.

However, to conduct educational research, teachers need different institutional and personal inputs; like research skill, financial support, interest, reasonable teaching load, library and laboratory facilities, cultural context and favorable attitude of decision-makers to ward research and researchers (Derebssa, 2000; & Adane, 2000).

1.2. Statement of the Problem

In the education and training policy (TGE, 1994) educational research is given special emphasis. It is clear that the focus of the ETP in meeting the challenges of the teaching-learning process and tackle the problem of quality in education is not only by producing teachers who are qualified to teach, but also by facilitating conditions to conduct research in classroom situations. Despite this fact the participation of teachers in research activity is to meet the criteria of evaluation as well as career structure (MoE, 2004). In this regard, it is expected that secondary school teachers conduct research for improving the teaching learning process, the curriculum as well as their professional competence. However, some studies that have been undertaken at

different times on secondary schools reveal that teachers' involvement in educational research was not as expected (Hussen, 2000; Yalew, 2000; Yeshimebrat, 2000; Abraham, 2004; Yibeltal, 2006; & Ashenafi, 2007).

The aforementioned studies so far cover only some secondary schools of Amhara, Afar and Oromia regional states of the country. The analyses of the studies, except Hussen's in some cases, undertaken by considering teachers as a whole failed to consider relationship of teachers characteristics (sex, level of qualification and experience) and teachers involvement in educational research. In Hussen's finding, experience was inversely correlated with teacher's research involvement. But this idea contradicts with other investigators report (Galton, 2003). In addition, past findings had some differences regarding factors affecting teacher's involvement in educational research. For instance a study (Abraham, 2004) in Afar region shows that secondary school teachers had not the problem of over work-load to engage in educational research activities. In contrary, studies at Ambo (Yibeltal, 2006), Gelemso (Ashenafi, 2007), Bahir Dar (Yalew, 2006) and Dessie (Hussen, 2000) secondary schools reported that teachers' involvement in educational research was affected by high work-load.

Moreover, although the past studies had high inputs to enhance knowledge of the status of educational research and factors affecting teachers' involvement in research, they were limited in providing complete information about the involvement of secondary school teachers in research activities at national level. So, this shows that the problem yet needs extra studies on different geographical settings.

Experiences showed that teachers of East Gojjam Secondary Schools (EGSS) were heard saying that, they were undertaking research for the purpose of step-up on the ladder of the career structure as well as to fulfill the requirement of their summer and/or distance program courses. However, there was no any evidence that indicates the extent of the problem in the Zone. This

study answers, "To what extent do teachers of secondary school in Eastern Gojjam involve in educational research and what are the factors affecting their involvement?"

1.3. Objectives of the Study

The general objective of this study was to assess the extent of teachers' involvement in educational research and to explore factors that affected conducting educational research in EGSS.

The specific objectives of the research are to:

- a. Describe relationships of teacher characteristics (sex, level of qualification and experience) and their involvement in educational research.
- b. Explore educational issues that were addressed in research outputs and the extent of its dissemination.
- c. Explore relationships of teacher characteristics (sex, level of qualification and experience) and major factors that affect their involvement in educational research.
- d. Provide suggestions for actions that would help promote educational research in secondary schools of Eastern Gojjam Zone.

1.4. Basic Research Questions

The study was attempted to address the following five basic questions:

1. What was the status of Eastern Gojjam Secondary School teachers' involvement in conducting educational research?
2. Was there a significant difference among teacher's characteristics (sex, level of qualification and experience) in conducting research?
3. What types of educational issues were addressed in research papers?

4. To what extent teachers' research works were disseminated?
5. What were the factors that affect teachers' involvement in educational research?
 - To what extent these factors are related to teacher characteristics (sex, level of qualification and experience)?
 - Which factors were more responsible to affect teachers' involvement in research activities?

1.5. Significance of the Study

Research on the status of educational research in secondary schools provides valuable information to decision makers at secondary schools including school administrators, supervisors, secondary school teachers, promotion committees and education officers at Woreda, Zonal and Regional level.

Secondary school teachers' benefit from this study since factors that affect their research involvement becomes popularized. By identifying factors that affect their involvement in educational research, the result of the current study would enable them to improve their participation in educational research through reducing such problems with corroboration of concerned bodies.

Schools, Woreda education offices, Zone education department and Regional education bureau can also benefit from the findings of the current research since they obtain information for improving teachers' participation in research activities.

Besides, to breadth the perspectives of concerned bodies and educators about the prior understanding of the involvement of secondary school teachers in educational research.

1.6. Delimitation of the Study

The study was delimited on the investigation of the status of secondary school teachers' involvement in educational research and on the assessment of effects of various factors on their involvement. The study was extended to analysis whether there was a significant relationship among teachers' characteristics and their involvement as well as factors affecting their involvement in educational research. To make so, the researcher was obligated to be delimited in Eastern Gojjam Zone to make the study manageable. This Zone was deliberately chosen for the study because of the fact that, the researcher was working in the Zone and his stay has helped him to see the seriousness of the problem.

1.7. Limitation of the Study

During the study the researcher were faced a problem of getting respective informant while collecting the data, especially from educational officers of Woreda and Zone, because there was a re-arrangement of personnel regarding to business process re-engineering (BPR). So, the researcher tried to get information from both the current and the previous officers when it was accessible. Sometime it is common to observe that the new representative officers have lack of enough information and experience about the status of the issue/problem in their organization. Hence, this might have its own effect on the results of the study.

1.8. Operational Definitions

The phrases which used in this study were defined as follow.

Competence in Educational research: - A teachers' ranges of skill or knowledge in educational research as measured by five point scale from very low to very high.

Attitude towards educational research: - teachers' opinions about educational research as measured by five point scale from strongly disagree to strongly agree.

Involvement in educational research: - the acts of undertaking educational research either individually or within group as measured by yes or no options.

CHAPTER 2: REVIEW OF RELATED LITRATURES

In this chapter, literatures that go with educational research in general and school based teachers' research in particular were discussed. The chapter has been further subdivided into subtopics of educational research and teachers as researchers, issues/ areas of school based research, the importance and ways of disseminating teachers' research works, and necessary conditions that used for conducting educational research.

2.1. Educational Research and Teachers as Researchers

According to Derebssa (2000), "Educational research refers to a systematic attempt to gain a better understanding of educational process, generally with the view to improving its efficiency" (p.179). Therefore, an educational research may help to promote and adjust the educational activities to surrounding fast changing environment, because education should serve as an instrument to survive in the environment smoothly and appropriately. This implies that the teaching-learning process should be assisted with research findings. Thus, the integration of research and teaching as well the needs of teachers as researchers are presented as follows.

The Integration of Research and Teaching

At the beginning of twentieth century, as Hattie and Marsh (1996, cited in Desalegn, 2006) noted, teaching and research were considered to be unrelated entities. The aim of the school was assumed to be teaching knowledge, skills and attitudes to students, where as research was considered as independent and separate activity.

However, for the last few decades, the integration of teaching and research becomes more recognized (Seyoum, 1998; & Galtan, 2003). Research plays a great role to enhancing the teaching-learning process in one hand, and the teaching-learning activities create an opportunity

for undertaking research activities on the other hand (Adane, 2000). For example, some research results can be practiced in actual classroom teaching-learning activities to improve the quality of education. Research processes help identify the weak and strong sides of the practiced teaching-learning activities. Since, suggesting possible solution for teaching-learning problems in schools require scientific method of study. This cyclic situation shows the integration of teaching and research.

The ultimate purpose of educational research is examining the existing schooling.

Mitchell (1985, cited in Adane, 2000) noted that;

If teaching is not informed by research, it ultimately tends to be more routine than involving creativity and reflection of the teacher or may possibly limit its scope to merely presenting theoretical ideas developed abroad which, perhaps, are not relevant to local situations and needs. Research in this respect, is one of the ways by which teachers reflect on their work with their studies (p.144).

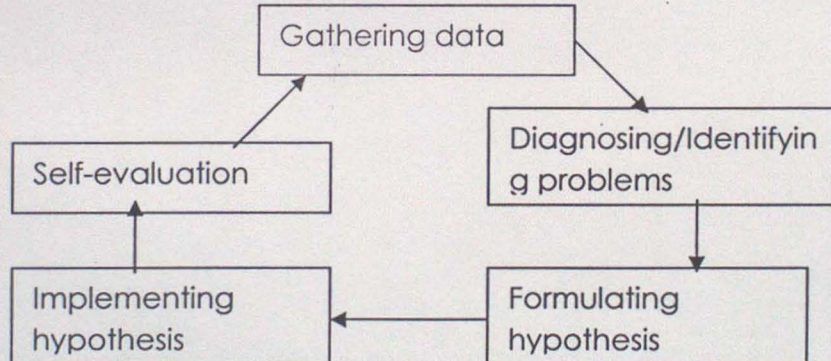
Hemsley-Brown and Sharp (2003), on their side remarked the needs for research in education by comparing teaching with medicine profession. In medicine, professional decisions, such as which treatment to prescribe for a particular condition, are based on the best available research evidence. This ensures that patients receive the most appropriate treatment, with the greatest likelihood of success. In contrast, teachers rarely utilise research in their decisions about what is best for their pupils. Though, teaching could become an evidence-based profession.

As Galton (2003) stated, in the past few years a great deal of discussion has taken place about the importance of educational research, particularly its value to policy makers and its usefulness to teachers. Analogous to this suggestion, the current Education and Training policy of Ethiopia (TGE, 1994) emphasis the nexus between education, training and research.

Teachers as Researchers

The concept of teacher-as-researcher is included in literature on educational reform starting from the middle of twentieth century. According to Yulew (2000) in Britain teachers were encouraged to do educational research to facilitate student's learning and to pin point the problems that emanate from the implementation of a new curriculum, since 1967. In the mid 1950's teachers of USA began conducting action researches to improve their curricula. Hence, teachers start to observe their classroom as well as their school critically experiment different situations in their search for the solutions of the problem they encounter, formulate alternative solutions, discuss with others and share experience regarding the problem, seek advice from others, and at the last they came to some conclusion about the issue.

In connection to this, Craft (2000, p.28) discussed the following flow of activities that a teacher aims to identify as part of his or her work for investigation in order to develop, implement and evaluate new approaches.



Such on going personal reflections are important trends of teachers, which encourage them to be collaborators in revising curriculum, improving their work environment, professionalizing teaching, and developing policy (Johnson, 1993).

Based on such assumptions it seems that, critical social researchers call for individuals to take the solution of their problems into their hands (Kincheloe, 2003). This is because of research

has its own impact on individual life. Research is a way for development and improvement of living. Undertaking it for such purpose has its own effect on schooling. So, it is advisable that teachers participate in research activities in education.

Steinberg and Kincheloe (1998) indicated that, teachers are responsible for healthy learning of students. Critical teachers must admit that they are a position of authority in their action in support of students within their classroom. To do so, teacher's action should be supported with research results of local classroom context. Hence, teachers must involve in research activities while teaching (Schratz, 1993).

Johnson (1993) noted the importance of giving high concern about everyday practical problems experienced by teachers, rather than the theoretical problems defined by pure researchers within a discipline of knowledge. Researches designed, conducted, and implemented by teachers themselves become instrumental to improve teaching in their own classrooms, sometimes becoming a staff development project in which teachers establish expertise in curriculum development and reflective teaching. The prevailing focus of teacher in research is to expand the teacher's role as inquirer about teaching and learning through systematic classroom research.

Therefore, teachers should undertake research while teaching for various purposes; as a professional development strategy, and as way of school improvement to enhancing students' achievement.

A. Improving Professions Through Research

Improve teaching technique through teachers' professional development help to facilitating the teaching-learning process (Sugrue & Day, 2002). However, teachers' professional development is not a short-cut task. As in the document of MoE (2004) stated, professional

development of teachers is understood as a continuous extension of competencies through team as well as self study. Teachers carry out experiences from the study collaborative to their classrooms while representing their research creatively, using portfolios or stories. Thus, teachers' professional development comes through continuously systematic method. Accordingly Burnafard and et al (2001) has pointed out that undertaking teachers' research in their working place/school context is used as one of this method. "Teacher research involves a continuing process of self-education, and that as teachers become researchers-in-practice, the practice itself is a source of renewal" (p.225). Adane (2000) on his side explained that, conducting research activity has a benefit to teachers in renewing their intellectual challenges and prevent them from becoming stagnant. Supporting this idea, Johnston (1997, cited in Yeshimberat, 2000) noted that;

Research is a mirror for the teacher because it helps him/her to see retroactive what was done effectively and what should be improved. It provides information that helps the teacher to be critical of his/her past experiences in the instructional process or about new contexts in the teaching learning process (p.260).

Conducting research in education has dual benefits. The first one is the practitioner themselves acquired knowledge and skills within the course of their work about the issue. Secondly, practitioners benefit from the research as a means to improve their practice. This implies that, the participation of teachers in educational research should get special emphasis. Therefore teachers are taken as the first person that undertaken the research activities and utilizes its results to improve their teaching skills and experience for enriching the teaching-learning process (Yeshimebrat, 2000). In support of this idea Hopkins (2002) noted;

Good teachers are necessarily autonomous in professional judgment. They do not need to be told what to do. They are not professionally the dependent of researchers, or superintendents, of innovators, and supervisors. (p.31)

It seems that recognizing this fact that, continuous professional development (CPD) provides for all level school teachers of Ethiopia. CPD has been found to be the most effective process and system of learning, experiencing and sharing through teachers' career (MoE, 2004). It is also essential that in order to make effective educational improvements. Since, teachers' participation in staff development activities results in change and in measurable improvement in schools. CPD courses offering to create development opportunities in methodology, classroom planning and management. At the end of each module/course, student teachers conducting an action research on an issue identified within the classroom, school or local community.

B. School Improvement Through Research

Ethiopia is implementing school improvement program (AED, 2006). School improvement is about how the school learning and teaching environment are organized, how teachers, pupils and parents are united in pursuit of quality education. Schools improve their performance when programs are organized around the interest, needs and aspirations of teachers, pupils and parents and the country at large.

The current school reform/improvement has sat based on decision-making at its core (Burnaford and et al, 2001 and Johnson, 1993). This newly reform comes with new responsibility. Teachers are agents of change and as such are in the front line of educational reform (MoE, 2004). In short, teachers are the key to school improvement. So, it is not enough for teachers merely to teach the knowledge on the existing text books, they will be called upon to make informed decisions. This is because of, as Corey (1953) explained, the lives individuals follow is dynamic. Life of today never repeats what was before. Education also passes over such changes. The only chance is becoming up-to-dated through research. Teacher research is one means to that end (Johnson, 1993). In line with this Burnaford and et al (2001) suggested that,

having teachers take responsibility and ownership of the educational research process from the beginning is crucial to any effort at school reform.

According to Craft (2000) the ultimate goal of school improvement research is to gather knowledge about what makes schools operate successfully. Goynor (1998) on his side noted that, in the effective schooling project ones' thought of relationships among such variables as academic performance, which is the central variable of the study, and other factors such as student learning, student motivation, teacher expectations of student achievement and the appropriateness and intensity of instruction.

Moreover, Johnson (1993) explained, educational research assists practitioners/teachers and other stakeholders in identifying the needs, assessing the development processes, and evaluating the outcomes of the changes they define, design and implemented. This is because of, conducting research activities help the schooling, by making learning more objective and realistic to students and by assisting teachers to improve classroom teaching to further learning (Hummudi, 1989 cited in Adane 2000).

Furthermore, Burnaford and et al (2001) have summarized the benefit of teachers' participation in research for school improvement as:

1. Teachers' research can play an important role in identifying relevant school improvement goals and in ascertaining the effectiveness of reform programs.
2. To maximize school reform efforts, teachers need freedom and support in choosing questions and pursuing ideas for improving learning and teaching.
3. There is an affinity between developing good teaching practices and engaging in action research, and both are vital for successful school reform and renewal programs (p.364).

Therefore, teachers engaged in research have a great impact on what happens in classrooms as well as the whole school program in the future. The future direction of school

improvement initiatives will be impacted by the things teachers' critical inquiry and rigorous examination of their own practice and their school programs.

Studies on Teachers Involvement in Research

Some studies have been conducted about the participation of teachers in educational research (Hussen, 2000; Yalew, 2000; Yeshimebrat, 2000; Abraham, 2004; Ashenafi, 2007; & Yibeltal, 2006). These studies reported that the extent to which teachers' involvement in educational research was very low. The findings depicted that insignificant number of teachers had been engaged in educational research. Even some of the teachers had started doing research studies at least once in their service years, but could not complete their studies because of different reasons (Yalew, 2000). The studies of Seyoum (1998), Yeshimebrat (2000) and Samson (2002) revealed that female teachers' participation in research activities was very low compared to males'. On the other hand Galton (2003) reported that there was no significant difference between male and female teachers in research involvement. Female teachers are also more supportive of personal involvement in research.

Teaching experience and qualification equip teachers with the necessary knowledge base for practicing educational research in their subject areas. Galton (2003) reported those teachers with advanced qualifications and more years of teaching experience claimed to have given serious consideration to research, while inexperienced teachers appeared to involve in research was inadequately. However, Hussen (2000) revealed that teaching experience was inversely correlated with teachers' research involvement; though there was moderate positive correlation between teachers' qualification and their research involvement.

Researches are accomplished individually or in group. For example, Samson (2002) made an evaluation study on research papers carried out in Awe Zone. He assessed 25 research papers.

His results showed that, 32% of the papers were done by teams of teachers and 68% of the papers done by individual teachers.

There was disparity among geographical area that selected by the researcher as a setting area of their research. As Befekadu (2000) and USAID (2007) document indicated, the majority of the researches conducted by graduate program of the education faculty of AAU students as well as the local school teachers were delimited to the capital cities and the central areas of the country, while the country-sides and peripheries are in most cases marginalized.

Teachers carry out research for different purposes. For example, Yalew (2000) in Bahir-Dar town teachers conduct research to seek solutions for the problems they encounter in their daily routines, for promotion, and for updating their knowledge and enrich their research skills and for partial fulfillment of their first degrees. Similarly Ashenafi (2007) found that teachers of Gelemso preparatory secondary school carried out their research mainly as partial fulfillment of their first degree, and for promotional purpose.

Involvement in research has its own effect on teachers' professional development as well as in school improvement program. Galton (2003) reported in his study, classroom teacher's participation in educational research helped them to achieve their aim. In line with this, Hussen (2000) in his study also found that teachers' research involvement has a positive effect on their understanding of the nature of the teaching-learning process.

However, there is indication in teachers' future intentions to undertake research (Yalew, 2000; & Abraham, 2004). From their result the majority of teachers under the study had planned to carry out research. In line with this, Hussen (2000) also reported that, teachers were favorably disposed in educational research. But Yalew (2000) have had a threat in two things. The first one, some teachers become disappointed when their papers are not accepted rather than learning from

their weakness. Secondly, the compulsory to conduct research lead to teachers emphasis merely research for promotion from one rank to the next, may excluding research for improvement.

2.2. Areas of Educational Research at the School Levels

In recent years there was a range of research activities in the field of education (Riches, 1986; and Koul, 2006). The large part of educational research is directed towards investigating problems related to method of teaching, the curricula, examination/educational measurement and test development, instructional materials and facilities, the student, the teacher, the school administration and parent-school relationship (PMU,2005; & Habtamu 2000).

Research on Curriculum, Text Books, Methods of Teaching and Testing

In a developing country like Ethiopia the school curriculum should change with changes in the society. If it remains static, it will have little relevant for the actual needs of the youth and society (Koul, 2006). To alleviate such problems there is a need for systematic curriculum research. Thus the revision of the curriculum may be worked out on the basis of the research findings (Altrichter and et al, 1993).

As Koul (2006) expressed, some of the important aspects of curriculum research are analysis of curriculum and development, its evaluation, adoption of curriculum to local need as well as learners abilities and physical development, concept development in various subjects, effectiveness of various teaching methods, human relation in curriculum development, study habits and duration of school work. In addition to this, the preparation of suitable text books and other teaching materials is also basic to the success of any attempt at curriculum improvement (Habtamu 2000). Thus, not only does the suitability of the existing textbooks need to be verified, but there also seems to be a need for investigation into the best types of textbooks. The research

would also help us in solving the problems that relate to the vocabulary, content, printing and illustrations of textbooks.

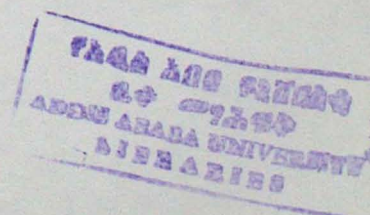
The area of educational measurement and testing has rich potentialities for research (Koul, 2006). It concerned with the critical evaluation of the existing forms of tests, the construction of valid and reliable tests for measuring the educational outcomes of teaching specific subjects and of various educational activities.

Educational Research in and around the School

Important areas of research related to students are school admissions, academic achievement in schools, social determinants, needs of children, influence of peer group, characteristics of learners, and children with special need (Koul, 2006; and Habtamu, 2000).

Among others, teachers' personality, enthusiasm, appraisal, incentive, needs are the important factors in the teaching situation. Research will help us in identifying the personality characteristics that influence teaching. It helps also in finding solutions to problems related to the administration of education so as to make it efficient and effective. To realize these aims, it would be worth-while to undertake research in the areas of staff personnel administration, educational planning, school plant planning, school organization, business administration, education of institutions, management theory, administration and supervision (Burnaford and et al, 2001; and Habtamu, 2000).

The role and function of the school should be determined in light of the needs of the specific community background. In the problem of delinquency and choice of the students, the study of social factors, joint family and cultural background of the community are also important problems relating to cultures, rural community, community development, industrialization, urbanization crime and family need to be investigated thoroughly (Koul, 2006).



Research Attempts and Related Issues

Koul (2006) has pointed out that research priorities areas in India, some of the most important include pertaining to basic process underlying learning and instruction, designing of instruction in terms of feasible strategies, and dimensions of instructional systems underlying varieties of learning outcomes, class room climate, leadership styles, student activism and unrest and stress, teachers' role and teachers' morale, the impact of societal factor on students academic achievement in schools, learners need, educational administration and supervision.

As Habtamu (2000) reported; Ministry of Education teams have listed dozens of problems. Some of the most important areas are; the quality of teacher in terms of training and motivation, the curricula at various levels, text books, teaching materials and various school facilities, the quality of education, the participation of parents, teachers and community in educational program, the examinations, and decision making power of educational administrators and organizations.

In the past three decades, educational researchers (such as Higher Institution Instructors, students of school of graduate, other education officials), have been attempting to study several problems related to the educational system in Ethiopia (Habtamu, 2000; Amare, 2000; & Befekad, 2000). The results show that, tertiary and secondary levels educations have been studied better respectively. Primary and pre-primary educations appear to be neglected by educational researchers (Amare, 2000).

In line with this, Ashenafi (2007) and Samson (2002) pointed out specific researched areas carried out by teachers of secondary and elementary schools. Most of the issues that the teachers tried to investigate were related to discipline problems among students, cause of students drop out and repeaters, teacher career structure, conflicts among teachers, students' achievement,

examination, extracurricular activities, preparation and utilization of teaching aid, teaching method or techniques, and curricular issues.

2.3. Disseminating Research Works

Once teachers/researchers produce their research work, their task becomes dissemination. This is because of, no matter professionally sound it is, a research work which remains in the hands of the researcher themselves is not contributing to knowledge. According to Marczyk and et al (2005), any one likely agree that it would certainly do little good if a researcher who discovered something important decided to keep those results quiet. "Imagine how different the world would be if Thomas Edison had invented the light bulb, but then decided not to tell any one about his inventions? What if, Bill Gates had decided to keep his computer technology all to himself? "(Marczyk and et al, 2005; p. 264). Clearly, then, sharing the results of research studies is important. Why it is so important and various ways of dissemination were presented as follows.

Benefits of Disseminating Research Results

Marczyk and et al (2005) described, there are several benefits to sharing the results of research studies. First, it adds to the knowledge base in education. As it is we known, science is essentially an accumulation of knowledge, and sharing research results adds an incremental amount of knowledge to what is already known about a particular topic. Thus, the dissemination of research results helps to advance the progress of science. Secondly, sharing the results of research ultimately improves the overall quality of his research being conducted. If researchers have an eye forward eventually publishing the results of their studies, those researchers will need to ensure that their studies are well designed and well conducted. Third, sharing the results of research allows other researchers to evaluate the study's results in the context of other research studies. Meaning that, the original study's results are being evaluated by other researchers in

other contexts. This tends to function as a quality check on the original research. Finally, for the results of a research study to have an effect on the way of individuals' life, those results need to be shared with others. In other words, research findings used to improve the way of life of individuals. For that improvement to take place, a study's results need to be shared with other peoples.

Furthermore, Derebssa (2000) suggested that, the dissemination and utilization of research findings are seen as an important part of the educational research and as a basic means of expanding the positive impact of research on educational practice.

Ways of Dissemination

Marczyz and et al (2005) indicated there are numerous options available for those researchers who desire to share the results of their studies with others. From books to journals to Internet, today's society offers many effective and efficient outlets for the dissemination of research study results. In line with this, Degarge (1999) and Derebssa (2000) explained that, research findings are disseminated on international, national and local based conferences/seminars and publication of proceedings and journals. The format for presentations differs from conference to conferences, most conference offer some combinations of the following presentation formats: poster presentations, oral presentations, and symposiums. A poster presentation as the names indicates, involves presenting the results of a research study in a poster format. For beginning researchers mainly conference is a preferred presentation format. An oral presentation involves speaking about the research results for a specified amount of time. A symposium is a collection of related oral presentations that are presented as a group.

Trends of Disseminating Teachers Research Findings in Ethiopian Schools

The findings of the studies indicated that the result of educational researches almost did not reach to the users (Befekadu, 2000; Yeshimberat, 2000; & USAID, 2007). Habtamu (2000) pointed out that, one of the major complaints of Ethiopian researchers is, the reports/findings are not disseminated to users (or/and stakeholders). The stakeholders of research are policy and decision makers, teachers, administrators, parents, politicians, the students and the community at large. From this, any one can recognize, distribution of the information of educational research via seminars, conferences and publications were one of the neglected areas of the educational sectors. To improve this problem, Befekadu (2000) recommended that, a system to produce and distribute research abstracts to concerned bodies regarding to the problem is an important.

2.4. Necessary Conditions to Carryout Educational Research

To accomplishing educational research; like any activity to be done effectively, researchers need certain things to be fulfilled. Sawyerr (2004) suggested that, there are two key components in general that facilitate or hinder research activities. These are an active component, mostly it include human (individual/or team) capacity of research and an environmental component, which constituted by the social, institutional and material factors. In line with this; Seyoum (1985, cited in Mekonnen, 2001) described that, there are two major conditions/dimensions that need to be considered to undertaking any research. These are personal and institutional dimensions. Under personal dimension he mentioned variables like mastery of knowledge and skills of research, interest, an inquisitive and fertile mind and discipline. Similarly variables mentioned under institutional dimension were research facilities, time, research fund, incentive, availability of data and culture.

Knowledge and Skill in Research Methodology

Any given task, whether it is simple or complex, requires certain skill and knowledge of how to accomplish it. Knowledge and skill in research methods are very essential and used as pre-requisite for research works. This is because of educational research is one of the social researches, which deals with the complex nature of human subjects, who have diversified personal characters. To understand the complex nature of human subjects they have to deal with a number of variables, acting independently and in interaction (Firdisa, 2000). So, those who are entitled to carryout educational research need to possess high quality of expertise and experience (Derebssa, 2000). Further more, Wirsma (1986, cited in Seyoum, 1998) elaborated on the need of research skills;

Although is intrigued educational research is demanding task, it is not an impossible. With organized concentrated study the aspiring educational researchers should be to master necessary research methods. Basically the only way to acquire competence in research is by doing it, but before research can be put into practice, some skills must be acquired (p.8).

This indicates that, researcher is expected to be an expert in planning and conducting research works. Educational research outputs depend on the researchers competence of accurate observation, description, definition of terms and problems, recognizing limiting factors, describing procedures, collecting and analyzing data, and careful documentation of references, recording of results and presenting conclusions. All these require the researcher's skill and competence. So, it would be impossible to think of undertaking effective research activity without the individual being equipped with basic research skill (Seyoum, 1998). Having skill in educational research skill not only to do research but also to read reports as well as utilize it by understanding their practice in better way (Gal and et al, 1996). The need for competency in research methods becomes indispensable to the individual/ teacher.

Training of teachers in research methodology is an important condition for improving their skills and knowledge. Mwaria and Wamahiu (1995) have posited that, training of beginner educational researchers in research methodology, especially focusing on new development in the area, is key element of the improvement process. Bellon and et al (1992) underlining the role of training in educational research, noted that the acquisition of research knowledge base should continue through teachers career by supporting appropriate professional development opportunities.

Therefore, to accomplish successful research work, training in research methodology is very essential even for those teachers who took research courses. Unless polished and sharpened by practice, by short term training programs, and by personal readings, this research skill what has been learnt can vanish in time. The training may be provided as in-service training, seminars, workshops and short-term programs (Yalew, 2000).

The aforementioned scholars' notations indicate that having the skills and knowledge of research, which can be mastered through training and enriched by experience, are essential prerequisite in research work. This being; the case lack of training, workshop, seminars or meetings on research issues makes the problem of research work more complex and sever. So, training of teachers is important to enhance their research involvement and quality. Thus, arming school teachers in up-to-date research method is unquestionable activity.

Interest and Attitudes toward Research

Any effective research would grow of the expressed interest and needs of the person who involved in it (Burnaford and et al, 2001). Any process of inquiry my not be competence, if it was done imposed by the external body. Seyoum (1998) interest is the major driving force, with out interest it would be very hard to imagine that one could engage in productive research work.

Successful research will be achieved when the intention comes from the individual researcher himself. The researcher himself must suggest doing it depending on the area of interest, to explore intrinsically with some passion.

Teachers' attitude towards educational research has also its own influence (either positively or negatively) in their involvement. Cohen and Mannion (1994) have posited that for teachers to develop positive attitude towards research and ultimately involve in educational research, they need to understand the nature of research and appreciate its attributes. Otherwise, research activities may be influenced by attitudes of teacher researchers. So, it is essential for teacher researchers to become familiar with and develop an appreciation of the nature of research process.

Financial and Material Resource and other Facilities to Research

To undertaking any educational activities the need of proper finance for that program is not questionable. Without money looking for achievement of objectives to which organizations aim is difficult. Educational institutions need to get research fund to operate an issue of research.

Insufficient financial resource has prevented even the simplest investigation activities from being carried out. According to Wiersmu (1995, cited in Yalew, 2000), the majority of elementary and high school teachers do not do research because of limited financial resources. So, lack of finance is one of the greatest problems of many teachers to undertake educational research. Tsegaye (2000) suggested that, to undertake research, there must have expenditure for frequent travel expense, supplies and charges of secretarial service unless individual researchers can not afford these huge costs. In addition to this, finance has psychological benefits to motivate researchers as incentive form. Incentives can create enthusiastic interest to act or perform a task. To consolidate this idea Lethnin (1987, cited in Seyoum, 1998) noted that:

The general and positive attitude and interest one has in research practice does not by itself take one any where unless the essential conditions for research are facilitated. Among the basic essential that are needed to carry out research activity are obviously financial resources (P.8).

In developing countries like Ethiopia, the funds for research work came from the government budget and sometimes donors (Habtamu, 2000). Many schools in eastern and southern African regions have not adequate budget to conduct research (Mwaria and Wamahiu, 1995; and Camp 1966). Some schools, which have small budget also, forgot or ignored to allocate for research activities as they readily do for administrative activities. Even in institutions who had allocated research funds are, many individuals are complain the long process undergo to get the funds they require. Supporting this idea Seyoum (1985, cited in Mekonnen, 2001) noted that "have the problem is not only a matter of getting the approved research fund, but it is also getting is exactly on time without too much red tap" (p.28).

In addition to fund, research requires available resources such as reference materials like books and journals; equipments like type writing or computer, laboratories, pedagogical centers, archives and other documentation centers (Sawyer, 2004). Since, researchers no matter how skilled will likely remain isolated and ineffective unless brought together to relevant literature, good data base, equipment and facilities (Hussen, 2000).

Therefore research work needs supply of budget, resource and facilities. The problems in getting such research inputs, and its delay due to administrative problem discourages researchers at least by erode the interest of those who want to conduct research.

Sufficient Time

How mach the researcher skilled and have an adequate finance are allocated, he/she can't undertake research, if he/she is loaded by other duties. To conduct an effective research, time is an important input. Researchers need time to design, carryout, analyze, conclude and reporting

the result of the research. According to Best and Kahn (1994) a researcher should ask: "will I have enough time to complete the project? Will there be time to devise the procedures? Select the data gathering devise, gather and analyze the data and complete the research report?" (p. 38).

This implies that, to undertake research, the researcher should have time to read different literatures, design the project, gathering the information, analyzing the data and reporting the research. Having this into consideration, teachers need to be provided with adequate time in order to be able engage in research. As Seyoum (1998), research is a time consuming activity. The time consuming nature of researches differ from one research paradigm to other. For instance, some qualitative researchers have suggested that one should plan twice as much time to write a report as it took to gather data (Bogadan & Biklen, 1998).

Support from Educational Organization Officials, Staff and Other Communities

Teachers need support from teachers and other school communities to conduct educational research. Support for teacher who does educational research could be in different forms: technical support, material support and participating or facilitating in different activities of the research (AED, 2006).

Tsegaye (2000) discussed, creating an elaborate administrative structure used to promote research activities. Good administrative structure in educational system has clear policy flows and discrepancies of time allocation for teaching, involvement in various committees, administrative tasks, supervisory loads, and research activities. In addition to this, if there is elaborative administrative structure within education system, it helps to establish a culture of communication, sharing ideas and cooperation among teachers, principals, students, other staff members and parents. School environment like this create a favorable condition to undertake research activity. Therefore, such conditions used to teacher researcher get important information

and other technical as well as material support to their research by developing research climate in school.

Factors that Affect Teachers in Involving Research Activities

As different research results reported, research methodology skill and knowledge of secondary school teachers was found to be low (Hussen, 2000; Yalew, 2000; Yibeltal, 2006; Ashenafi, 2007; Abraham, 2004, & Yeshimebrat, 2000). The studies also revealed that, teacher don't know how to do educational research highly affect teachers involvement in research activities. But, Hussen (2000) has pointed out the majority of the respondent teachers believed that; teachers can conduct educational research on their own level besides irrespective of limitations in research skill.

Teachers' research skill and their trainings in educational research methodology have significant relationship (Yalew, 2000; USAID, 2007, Yeshimebrat, 2000; & Abraham, 2004). That is, lack of skill and knowledge in educational research comes from lack of training and orientation about research methodology. Not only the untrained, but also teachers who have taken research trainings/course have not adequate research knowledge and skill (Yalew, 2000). As Yalew (2000) reported, this is because of:

- Research courses offered in colleges and universities are highly theory-ridden and do not provide with sufficient experience of conducting research. The courses emphasis on introduction and review part than design and data analysis.
- The time given to cover the essential research topics was limited.
- Some of the workshops and seminars were organized by the educational bureau without or with little planning of what should be presented to the teacher and how should the seminars or workshops pursue.

- Some of the presenters were not well qualified to present the topics in such a way that could develop teachers' ability and skills of research.
- No materials were given during the training and after the training.

In the training, even, there was gender disparity (Yeshemebrat, 2000). Moreover, it was also found that skill was the major predictor of teachers' involvement in educational research (Hussen, 2000).

Teachers' attitude and interest toward research has its own influence to conduct research. Regarding this point; Yeshembrat (2000), Samson (2002), Hussen (2000) and Abrahm (2004) revealed that elementary and secondary school teachers had positive attitude and interest toward research activities. Whereas; Ashenafi (2007), Yalew (2000), and USAID (2007); point out teachers had unfavorable attitude and interest to educational research. This because of; there were absence of incentive and inadequate awareness toward research (Ashenafi, 2007) and fear of rejection of one's work (Yalew, 2000).

Lack of finance, resource and facilities at the school also were significantly affected teachers involvement in educational research (Ashenfi, 2007; Abrahm, 2004; Yalew, 2000; & Samson, 2002). Most the findings revealed that there is no budge allocation at school level related to research activities. But, Hussen (2000) has reported that; there was moderate lack of financial and material assistance in the school which affect teachers' research involvement.

Work over load which leave little or no time for teacher to conduct research. In this regard some studies show that, teachers had over teaching load that hindered them from research activities (Yalew, 2000; Yeshimerat, 2000; Samson, 2002 & USAID 2007). On the other hand Hussen (2000) revealed that, teachers teaching load have moderate effect on their research involvement. However, teachers had not teaching load that affect their research activities

(Abraham, 2004). Ashenafi (2007) on his study discovered that, the problem of heavy work load differs from one teacher to another, or from one subject to another.

Studies in some schools revealed, lack of support from the school administration and other concerned educational admonitions was highly affected teachers research involvement (Yalew, 2000; Ashenafi, 2007; & USAID, 2007). The research coordinating committee within the school activity was also weak (Samson, 2002; & Abraham, 2004). Family responsibility lack of similar encouragement of females and gender-specific roles were found to be as the cause of low participation in research activities especially for female teachers (Yeshembrat, 2000). Moreover lack of advisory, ignorance of higher bodies for research activities, discouraging working situation, and interrupting career structure were impeded teachers from carried out research in their school (Yalew, 2000; & Ashenafi, 2007). However, Hussen (2000) on his study has point out, the over all effect of such factors on research involvement of teachers were moderate.

CHAPTER 3: METHODS OF THE STUDY

3.1. Research Design

In this study a descriptive survey research design method was employed. It was designed to collect systematic descriptions of existing phenomenon in order to describe or explain what is going on; data were obtained direct questioning a sample of respondents. For this purpose mainly quantitative but also qualitative data were collected from representative samples. This helps to obtain different but complementary data on the same topic to have good understanding of the research problem. The two data were collect separately; however the results come together at the interpretation stage. The intent is to draw valid conclusion about a research problem by comparing results, or validate, or corroborate quantitative results with qualitative findings.

3.2. An Overview of the Study Setting

East Gojjam zone is one among the eleven Zonal Administrations of the Amhara National Regional State (ANRS). It is found in the south west part of the region and its capital city Debre-Marcos, is situated at a distance of 300 km north west of Addis Ababa and 270 km south east of Bahir-Dar which is the capital city of the region. In East Gojjam Zone, there are sixteen woredas and two city administrations. There were 25 secondary schools (9-10, 9-12 and 11-12) with 1104 teaching staff.

3.3. Participants of the Study

The participants of this study were teachers and directors of secondary schools, Woreda and Zone officers of Eastern Gojjam Zone in the academic year 2008/09. Representative samples of 7 secondary schools were selected systematically from 22 secondary schools of the zone. First

the 22 secondary schools were arranged in alphabetical order (*see Appendix D*). Next the schools were divided into seven groups which have three members each. Finally the second school was selected from each group using lottery system. All 363 teachers, which were 302 male and 61 female teachers of the seven selected secondary schools, were sampled out. From this, 334 teachers did return the questionnaire by filling appropriately, whereas the other 29 teachers did not return the questionnaire properly. Directors and Woreda officers of the selected secondary schools and zone officers were taken purposively due to their responsibility. That is, seven directors (deputy/representative directors) and ten woreda officers of sampled schools and three zone officers were also included in the sample, and the total number of participant school principals and educational officers was 20.

Table 1: Sample teachers, directors and educational officers.

No.	School	Woreda (Town Administration *)	Sample		
			Teachers	Directors	Woreda officer(s)
1	Debre-Markos Preparatory Secondary School	Debre-Markos*	37	1	-
2	Amanuel Secondary School	Amanuel	54	1	1
3	Kuy General Secondary School	Kuy	38	1	2
4	Ginbot 20 Secondary School	Lummamie	52	1	2
5	Bahire-Giorges Secondary School	Ginde-Woyne	56	1	2
6	Motta General Secondary School	Motta*	69	1	1
7	Sedie General Secondary School	Hullet Ejjū Enessie	28	1	2
Total			334	7	10
East Gojjam Zone officers				3	

3.4. Data Collection Instruments

The instruments used for data collection in this study were questionnaire, interview and documents like minutes. The questionnaire and interview were developed in such a way that to maximize the possibility of generating answers to the basic research questions based on the important concepts from review of literature.

Questionnaire

The questionnaire was prepared to collect relevant data from teachers. The major contents of the questionnaire were the extent of teachers' training in educational research, the extent of teachers competency of doing research, the extent of teachers attitude toward educational research, extent of teachers' involvement in educational research, the extent of teachers research work dissemination, and availability of material, financial, facilities and support from educational officials which used to create conducive environment for research. This was made in the form of either closed ended or open ended questions or both (*see Appendix A the English version and Appendix B the Amharic version*).

Interview Guides

Another instrument used in collecting data was a semi-structured interview guides. The semi-structured interview guides were prepared to gather complementary information from school directors, Woreda and Zone officers. The guide included items that reflect the basic research questions (*see Appendix C*).

Documents

In addition documents like minutes and files about educational research were analyzed. At school and woreda level there were temporary committees which organized for approved of

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teachers' research work. When the committee approves teacher's research, they recorded the strength, weakness and respective comments on the agenda (or minutes) that prepared for such purpose. So, the researcher was analyzed three schools and two woredas documents. The remaining four schools and four woredas document were not incorporated in the study, because of its non-availability.

3.5. Procedures of the Study

To assess the problem one of the instruments that employed in this study was questionnaire. The questionnaire was prepared after passing some processes. The process included, collecting items and developing instruments, changing them into scales and questions. After preparing the instrument in English was translated into Amharic by the researcher with the help of English and Amharic language second year graduate students to avoid response errors that might be created due to language barrier. Minor differences were corrected through discussion between the language students and the researcher.

The instruments were presented for two educational research and one psychology post graduate second year students and to the advisor to comment on instruments clarity, precision, relevance to the purpose it was intended to assess. Thus, based on the comments given the content validity was confirmed by correcting words of the items, adding and removing few items.

Finally, the questionnaire was made ready for pilot test after it was approved by the advisor. The main objective of the pilot test was to improve the instruments. In doing so, copies of the questionnaire were distributed in Motta Preparatory School by taking 27 teachers. But 25 respondents have been returned the questionnaire by filling appropriately. The obtained result was analyzed using Statistical Packages for Social Sciences (SPSS) version 15.0 to see its

reliability. The summary of the reliability of each sub-scale and number of items improved in each sub-scale were presented in Table 2.

Table 2: Reliability of the questionnaire.

Items	Reliability	Number of items improved after pilot test
Item 13-27	0.81	1 (item 23)
Item 28-41	0.76	2 (Item 29 and 31)
Item 58-75	0.80	4 (Item 58, 59, 68 and 75)
All items	0.83	7

As indicated in Table 2 the reliability found from the pilot test was 0.83. Items with low correlations with the total test were improved.

To get the required data, first formal contact were established with school principals and educational officers, by showing letter of request to cooperate with the researcher from Addis Ababa University. After getting permission from them, the researcher made another contact with unit-leaders. Discussion was held with the principals and the unit-leaders. The aim of the discussion was on explaining the purpose of the study, getting information about the respondents and arranging program for administration of the instrument.

After permission was granted from the schools, the researcher made contact with the respondent teachers. The nature and the purpose of the study were explained to them by the researcher. In addition, to the general and specific direction in the instruments, oral instructions were given.

Finally, copies of the questionnaires were administered with the help of unit-leaders, volunteer teachers and principals. Three up to five days were provided for teachers to fill the

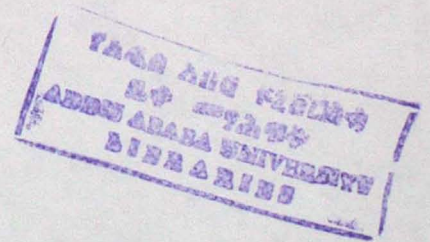
questionnaire. Side by side, the interviews were made from directors, woreda and zone officers. Besides, the available documents (like minutes) on educational research were analyzed.

3.6. Methods of Data Analysis

The data, which were collected from different sources were analyzed and interpreted using both quantitative and qualitative research methods. First, quantitative data were entered in SPSS version 15.0. Next, the simple frequency counts, percentage, weighted mean, χ^2 -test, t-test and/or one-way ANOVA were calculated. Then;

- Percentages and weighted means were applied for simple descriptions.
- χ^2 -test was employed to examine whether there is a significant differences among teacher characteristics (sex, level of qualification and experience) in their research engagement.
- t-test and/or one-way ANOVA were employed to examine to what extent factors that affect educational research involvement related to teachers characteristics.

The qualitative data that were gathered from open-ended questionnaire, interviews and document analyses were organized, coded, classified into specific patterns and analyzed using content analysis techniques.



CHAPTER 4: DATA PRESENTATION AND ANALYSIS

The purpose of this study was to investigate the status of educational research in East Gojjam secondary schools (EGSS). For this, seven schools in the zone were taken. The preliminary information was gathered from teachers through questionnaire, from directors, Woreda and Zone officers using interviews.

The data collected were analyzed and discussed to seek answers for basic research questions raised in the first chapter. Data from the participants were presented, followed by major descriptions of results. The first presentation is based on the data presented for all teachers of the sampled schools followed by interviews of directors, Woreda and Zone officers. The data analysis involved both quantitative and qualitative techniques. Whenever relevant results set up from quantitative and qualitative data, supplement each other for the purpose of triangulation.

This chapter comprises nine parts. These are; the characteristics of the participant teachers of the study, training of teachers in educational research, teachers' involvement in educational research, main issues/problems addressed by teacher researchers, factors that drive teachers to conduct educational research, dissemination of research works, factors affecting teachers' involvement in educational research, and teachers' future plan to carry out research.

4.1. Profile of Teachers

In the teachers' questionnaire, teachers were requested to provide information on their personal profiles. Detail of this analysis is given on Table 3 (p. 39).

Table 3: Profile of teachers

No.	Item		Sex		Total (%)
			Male	Female	
1	Qualification	Diploma	42	13	55(16.50)
		BA/BSc/BEd	235	43	278(83.20)
		MA	1	0	1(0.30)
		Total (%)	278(83.20)	56(16.80)	334(100.00)
2	Specialization	Language	53	23	76(22.80)
		Social science	82	6	88(26.30)
		Natural science	107	24	131(39.20)
		Others	36	3	39(11.70)
		Total	278	56	334(100.00)
3	Age	≤ 25 Years	107	15	122(36.50)
		26-30 Years	108	30	138(41.30)
		31-35 Years	29	9	38(11.40)
		≥ 36 Years	28	2	30(9.00)
		Total	272	56	328(98.20)
		Missing	6	-	6(1.80)
4	Service	≤ 5 years	165	27	192(57.50)
		6-12 Years	73	20	93(27.80)
		≥ 13 years	38	9	47(14.10)
		Total	276	56	332(99.40)
		Missing	2	-	2(0.60)
5	Period	≤ 10 periods	29	6	35(10.50)
		11-15 periods	31	4	35(10.50)
		16-20 periods	88	26	114(34.50)
		≥ 21 periods	124	20	144(43.10)
		Total	272	56	328(98.20)
		Missing	6	-	6(1.80)

As shown from Table 3, the respondents of this study were 334 secondary school teachers. Thus, 278 (83.20%) of the participants were males while 56 (16.80%) were females. This shows that the majority of the respondents were male teachers. This is because of there was small proportion of female teachers in the sampled secondary schools.

With respect to academic qualification, about 55 (16.50%) of the teachers were diploma holders, 278 (83.20%) of the teachers had first degree and the rest 1 teacher was MA holder. In short the majority teachers in the sampled secondary schools of Eastern Gojjam in the academic

year 2008/09 were first degree holders. Even if the remaining 16.50% of the teachers were said to be diploma holders currently, they had been attended their first degree at different government universities in the summer programs as the researcher was informed from school directors and on some respondents remark notes. According to the interviewee principals of the secondary schools, most of diploma holder teachers were year two and above summer program students. They were identifying from elementary schools by the criteria that covered more summer programs to fill the gap of shortage of degree holder teachers in secondary schools. So, the participants of this study were above diploma level in their academic qualification.

Concerning their field of study, 76 (22.80%) of respondents were specialized in language, 88 (26.30%) of the respondents field of study were social science, 131 (39.20%) of the respondent teachers specialization area were natural science and the other 39 (11.70%) of the respondents field of study were HPE, economics, technical drawing, business, computer science, information technology.

Regarding age, 122 (36.50%) of the teachers were less than 25 years old, 138 (41.30%) of the respondents were in the range 26-30years old, 38 (11.40%) teachers' age were in the range 31-35 years old and the rest 30 (9.00%) teachers were 36 and above years old. However 6 teachers were did not react to this item. Thus, the majority of the respondent teachers were young.

As indicated in Table 3 (p. 39), 192 (57.50%) of the teachers have 5 and blow years of services, 93 (27.80%) of the respondent have 6 up to 12 years services, and the rest 47 (14.10%) of teachers have 13 and above year of service in teaching profession. Two teachers failed to respond the item. Moreover, the majority of the sampled secondary school teachers were less experienced.

The teaching load of teachers per week indicates the time teachers may have to undertake educational research. The teaching load as depicted in Table 3 (p. 39), 35 (10.50%) of the respondents have 10 and below periods teaching load per week and similarly another 35 (10.50%) teachers loaded 11 up to 15 periods. With teaching load 16-20 periods were 114 (34.10%) of the respondent teachers. One hundred forty four or 43.10% of the teachers have 21 and above periods per week. Six teachers did not responded the item. Hence, the majority (or 55.10%) of secondary school teachers under this study had 20 and blow teaching load/ periods per week. The average teaching load per week was 18. Meaning that, teachers have 3 up to 4 periods per day. One period in secondary schools takes 42 minutes.

4.2. Training of Teachers in Educational Research

An important variable to investigate the status of educational research in secondary school is teachers' know-how of how to do research. This could be acquired either during the initial training or through short term trainings provided on the job. The following table presents the status of teachers' training on educational research as indicated by teachers in questionnaire.

Table 4: Training of respondent teachers in educational research

No	Items	Reponses	
		Yes (%)	No (%)
1	Teachers who attended educational research methodology courses	268(80.20)	66(19.80)
2	Teachers who participated in seminar, workshop, or in-service training which tutored educational research.	78(23.40)	256(76.60)
3	Teachers who took both course(s) and trainings	67(20.10)	55(16.470)
4	Teachers who have an access of reading different books, journals, articles and other handouts of educational research.	168(50.40)	160(47.90)

Table 4 shows that from 334 teachers responded, 80.20% have attended research methodology courses at universities/colleges level, while 19.80% of the teachers did not attended any research methodology course. On the contrary, from who requested whether they have ever

taken trainings, only 23.40% of the respondent teachers were participated in seminar, workshop, or in-service training of educational research while 76.60% of the teachers have not got the chance. Further; 67 (20.10%) of the participants took both course(s) and trainings, 212 (63.47%) of the participants either attended the course or the trainings but 55 (16.46%) of teachers did not took both courses and trainings. The Table also shows that about 50% of the respondents have an access of reading different books, journals, articles and other handouts that focus on educational research.

An important question at this point is; was there a significant difference among teachers' characteristics in their educational research training?

Table 5: Training involvement versus teachers' characteristics.

Variable	Attribute	Have you ever attended any educational research methodology courses?				χ^2
		Yes		No		
		N	%	N	%	
Sex	Male	223	80.20	55	19.80	0.01
	Female	45	80.40	11	9.60	
Qualification	Diploma	42	76.40	13	23.60	0.85
	Degree	225	80.90	53	9.10	
Specialization	Language	66	86.80	10	13.20	103.83*
	So. Science	84	95.50	4	4.50	
	Natural science	110	84.00	21	6.00	
	Others	8	20.50	31	9.50	
Service	≤ 5 years	171	89.10	21	0.90	3.30
	6-12 years	75	80.60	18	19.40	
	≥ 13 years	36	76.60	11	23.40	

* $p < 0.05$

Table 5 depicts that there was no statistically significant difference between male and female teachers; diploma and degree graduate teachers; and among teachers who have low, medium and high teaching experience in attending educational research methodology courses.

However, there was a significant difference in attending educational research methodology courses among groups of teachers area of specialization ($\chi^2_{(3)} = 103.83, p < 0.05$). Meaning that, as compared to other field of study, less numbers teachers who classified under others were taken training in doing research. Therefore, other teachers (such as technical drawing, economics, business, HPE) and some natural science, language as well little social science teachers who graduated from applied stream (out of education colleges) had not attended any research methodology courses. The results of the analysis on training of teachers in educational research; in seminars, in workshops and in-service programs was not far from this.

Teachers were asked to provide information on the extent to which the courses and/or the trainings they took help them in doing educational research. The following table shows the responses in this regard.

Table 6: The extent to which training in educational research helped teachers.

No.	Item	Response				
		Low (%)	Medium (%)	High (%)	Mean	Std. dev
1	The usefulness of the research course in equipping teachers to do research is	21(7.50)	59(18.50)	199(72.60)	3.90	0.96
2	The usefulness of the research trainings in seminar, workshop, or in-service programs in equipping teachers to do research is	-	17(2.10)	60(77.90)	4.05	0.71

As it observed from Table 6, 268 teachers who attended educational research methodology courses and 77 teachers who took research training in different workshops were requested to value the usefulness of the courses and the training accordingly. Of these respondents, nearly 73% of who attended the courses and 78% of who trained in seminar, workshop, or in-service programs said that the training has helped them highly to carry out educational research. The other 18.50% from who attended the course and 2.10% from who

participated in workshops said that the training has helped them to some extent to carry out research. The number of those who responded "to low" 7.50% implies that negative outlooks towards the courses efforts were minimal. Still, the mean 3.90 and 4.05 indicate that the courses and the trainings were useful to equipped teachers in educational research. Though, this is highly dependent on the perception of teachers.

4.3. Teachers Involvement in Educational Research

Teachers are expected to involve in research activities in their working place. The teaching-learning process becomes effective and fruitful; when it is supported by research inputs. To know teachers' involvement in educational research in EGSS, the collected data from respondents had been analyzed as follows.

Table 7: Teachers Involvement in Educational Research.

Item		N	%
Have you ever conducted educational research in your teaching career?	Yes	111	33.20%
	No	221	66.20%
	Missing	2	0.60%
	Total	334	100.00%

From Table 7, 111 (33.20%) of the respondent teachers were who involved in educational research in their career. However, 221 (66.20%) of the teachers were not involved in research activities in their teaching career at least one time. The rest 2 respondents were missed the item while filling the questionnaire.

Therefore, only one-third of EGSS teachers were involved in research activities. But the other two-third of the sampled population did not participate. The interviews made with school directors, woreda and zone officers as well as the response of teachers to open ended items indicated that, the involvement of secondary school teachers in educational research was very low. The majority participants reported that, the effort made by teachers to do educational

research to enhance the quality of education was almost limited unless the external force obligated them.

Percentage and χ^2 were employed to analyze whether there was a significant difference among teachers' characteristics in their educational research involvement. The summaries were indicated in Table 8.

Table 8: Proportion of teachers who did educational research.

Variable	Attribute	Have you ever conducted educational research in your teaching career?				χ^2
		Yes		No		
		N	%	N	%	
Sex	Male	90	32.40	188	67.00	0.87
	Female	21	38.90	33	66.80	
Qualification	Diploma	24	45.30	29	54.70	6.11*
	Degree	86	30.90	192	69.10	
Specialization	Language	28	36.80	48	63.20	6.57
	So. Science	32	36.40	56	63.60	
	Natural science	45	34.90	84	65.10	
	Others	6	15.40	33	84.60	
Service	≤ 5 years	35	18.20	157	81.80	49.55*
	6-12 years	49	52.70	44	47.30	
	≥ 13 years	27	60.00	18	40.00	
Teaching load	≤ 10 periods/week	14	40.00	21	60.00	1.53
	11-15 periods/week	11	31.40	24	68.60	
	16-20 periods/week	35	31.30	77	68.80	
	≥ 20 periods/week	51	35.40	93	64.60	
Training in research	Yes	101	38.00	165	62.00	12.37*
	No	10	15.20	56	84.80	

* $p < 0.05$

% = percent within attribute.

As shown on Table 8, 90 (32.40%) of male and 21 (38.90%) of female teachers were involved in research activities. Female teachers who did not do research were 33 (61.10%) whereas male teachers were 188 (67.60%). In this observation, the percentage of female teachers' participation seems like to some extent more than male teachers. However, the analysis indicated

that there was no statistically significant relationship between research involvement and sex of teachers in EGSS.

Table 8 (p. 45) indicated that, diploma holder teachers who did educational research were 24 (45.30%) however only 86 (30.90%) of teachers who had first degree were participated in research activities in their teaching career. Diploma teachers who did not participate in research activities were 29 (54.70%) while degree teachers were 192 (69.10%). The data revealed there was statistically association between research involvement and level of education ($\chi^2_{(1)} = 6.11, p < 0.05$). To help identifying which group participated more, the standardized residual values were calculated as follows.

Table 9: Standardize residual value for each category of teachers qualification.

Item		Qualification	
		Diploma	Degree
Have you ever conducted educational research?	Yes	1.52	-0.67
	No	-1.07	0.47

As it can be seen from Table 9, all the absolute standardized residual value was less than 2. This shows that the difference between diploma and first degree holder teachers was not significant. Since, according to Yalew (2006) if the absolute standardized residual value is less than 2, the difference between the groups is not significant. The standardized residual value of diploma teachers who did educational research was positive, however the degree holders was negative. This implies that, slightly more number of proportion diploma holder teachers participated in research activities in their teaching career than first degree holders. The standardized residual value of diploma teachers who did not do educational research was negative while the degree one's positive. Still, the reversed quantities indicate that degree holders are less participated than diploma ones. Therefore, the participation of diploma teachers in research

activities in EGSS was more than teachers who had first degree; however it was not statistically significant.

Table 8 (p. 45) depicted that the proportion of language, social science, natural science and "other" teachers who did educational research were 36.80%, 36.40%, 34.90% and 15.40% respectively. In contrary, 63.20% of language teachers, 63.60% of social science teachers, 65.10% of natural science teachers and 84.60% of "other" teachers did not done research in their teaching career. Thus, nearly unanimous percentages were obtained among language, social science and natural science teachers in involved in educational research. On the other hand, the participation of "other" teachers was low as compared to the other groups. However, there was no statistically significant relationship between area of specialization and educational research involvement in EGSS.

Service year of teachers has an influence on teachers doing educational research. This could be in terms of perceiving a wide range of problems and seek solutions while teachers have adequate teaching experience. From Table 8 (P. 45) it can be observed that 18.20% of teachers whose service less than or equal to 5 years, 52.70% of teachers served 6-12 years and 57.40% of teachers who served 13 and above years did educational research in their teaching career. Whereas 81.80%, 43.30% and 38.20% of teachers who have low, medium and high teaching experience respectively did not participated in research activities. The obtained value ($\chi^2_{(2)} = 49.55, p < 0.05$) indicates that the relationship between service year and educational research involvement was statistically significant. To help identifying which group participated more, the standardized residual values were calculated as follows.

Table 10: Standardize residual value for each category of teachers' service.

Item		Service		
		≤ 5 years	6 – 12 years	≥ 13 years
Have you ever conducted educational research?	Yes	-3.68	3.17	3.04
	No	2.62	-2.26	-2.17

All the absolute standardized residual value of teachers group based on their service was greater than 2 as it can observe from Table 10. Hence, there was a significant difference among teachers with respect to their service in educational research involvement. Teachers who served 6-12 years and teachers who had 13 and above years teaching experience were more participated consecutively. However, teachers' involvement in educational research who served 5 and below years were very low. Since, the standardized residual value of 6-12 years, and 13 and above years served teachers was positive while 5 and below years experienced teachers was negative.

Taking into consideration this, teachers were asked to provide information on the extent to which their teaching experience had helped them in doing educational research. The following table shows the responses in this regard.

Table 11: The extent to which teaching experience on educational research helped teachers in doing research.

Item		VL	Low	Medium	High	VH	Mean	Std.dev.
To what extent your teaching experience contributes to your research undertaking?	N	6	2	27	44	30	3.83	1.04
	%	5.40	1.80	24.30	39.60	27.00		

Table 11 shows that 111 teachers who did educational research have responded to the above question. From these respondents, nearly 25% said that their teaching experience has helped them to some extent to carry out educational research. The other 40% and 27% of teachers said that their teaching experience helped them to undertake research highly and very highly

respectively. The percentages on those who responded “low” and “very low” 1.80% and 5.41% implies that negative outlooks towards the teaching experience efforts were minimal.

Additionally, the mean 3.83 point out that teachers teaching experience input to undertaking educational research were high.

As it can be observed from Table 8 (p. 45); 40.00%, 31.40%, 30.70% and 35.40% of teachers who had teaching load 10 and below periods, 11-15 period, 16-20 period and above 21 periods, did education research respectively. The data revealed that there was no difference among teachers who had different teaching load in their educational research involvement.

It is common to observe that educational research is conducted both by trained and untrained teachers. Although doing research by itself is a positive step in the education system, doing educational research without training might have other quality influences on the outcomes of the research undertaken. In order to get the impression of the extent to which teachers claim to have done research that were trained and untrained the collected data was analyzed.

From teachers who had attended educational research trainings, as shown in Table 8 (p.45), 101 (38.00%) did conduct educational research while 165 (62.00%) of the teachers did not do. On the other hand from teachers who did not attend any research methodology course research, only 10 (15.20%) of the teachers were involved in research activity, but 56 (84.80%) of teachers did not participate. The data revealed there was a significant difference in educational research involvement between teachers who had attended educational research courses and teachers who did not attend ($\chi^2_{(1)} = 12.37, p < 0.05$) in favor of who attended research courses.

4.4. Main Issues or Problems Addressed in Research Outputs

Educational research is concerned with diagnosing a problem in schooling and attempting to solve it in that context. Teachers aspire to investigate within their schools/classrooms; there are so many issues or abundance of problems available in their day-to-day practice. This survey found that, a variety of issues were investigated by teachers. The issues were in relation to promoting students' learning, since the whole effort of the school is to accomplish this purpose. Besides, most of the issues teachers tried to investigate were the same across the schools.

Some of the most important issues include causes of conflict in adolescent stage and resolution mechanisms, relationship between punishment and student achievement, contribution of oral literature to teach English, student-teacher relationship, problems of students participation in group discussions, how to improve the speaking and writing skill of students in English and Amharic subjects, causes of students' underachievement in different subjects and grades and resolution mechanisms, causes of absenteeism and late coming to schools, causes of poor academic performance of female students, teacher-student interaction, students participation in co-curricular activities or in different clubs in the schools, problems of applying continuous assessment, disciplinary problems of students, and comparison of female and male students' academic achievement.

4.5. Factors that Drive Teachers to Conduct Educational Research

In undertaking educational research teachers are motivated by different factors like to attain personal benefits and to improve the quality of practices and actions within the school. To demonstrate the energetic factors of teachers to conducting research, the collected data from respondents were summarized as follows.

Table 12: Factors that drive teachers to undertake educational research.

Purpose	N	%
For promotion in the career structure	15	13.51
To develop knowledge	3	2.70
The fulfillment of degree or diploma	57	51.35
To solve problems in schooling	11	9.91
More than one rating	9	8.11
For other	14	12.61

As shown on table 12, from the total 111 teachers who did educational research more than half of the respondents were claimed that they undertook research for the purpose of the partial fulfillment of degree/course requirement. Moreover interviews that made from school principals also indicated that, in recent years (2002 onwards), teachers who were pursuing summer courses observed participating in educational research activities.

From teachers who reported that they did educational research, nearly 14% of participants did conducted their studies for the purposes of promotion in the career structure. A six-tiered scheme had been developed for teachers working at school levels from elementary up to secondary schools to grow from a beginner teacher ('Jemari Memihir') to a leader teacher ('Meri Memihir'). Accordingly, as teachers do progress from one level or rank to the next, their salary increases, and their esteem in the school community grows. Especially, those veteran teachers who have had teaching service of six and more years (i.e. those teachers who have already progressed to the four highest levels or ranks of the career structure's ladder scheme: Memihir, kefitegna Memihir, tebabari Memihir, and Meri Memihir) are required to do research, that is, they have to produce one publication every 3 or 4 years.

In line with this, the other 12.61% teachers did participated in educational researches that carried out for the requirements of CPD and SIP programs. However, problems observed in

schools push only 9.91% teachers to conduct educational research. The rest 2.70% of the respondents undertake their educational research for the purpose of developing knowledge.

4.6. Dissemination of Research Outputs

Disseminating research products is one of the components to promote teachers participation in educational research. It helps to improve teachers' research doing competency as well as using research results. That is teachers who get an access of research works of others, in one hand they used the research reports as a model to carryout their research. On other hand teachers who want to improve their teaching style via research results get an opportunity when scholars' research results reach to them. Concerning this issue, respondents' responses were summarized in Table 13.

Table 13: Dissemination of research outputs.

No	Items	Reponses		χ^2 value among the schools
		Yes (%)	No (%)	
1	Teachers who have got an access to research works of other teachers	78(23.40)	256(76.60)	1.97 (df=6)
2	Teachers who believe there is an opportunity in their school to disseminate research works by researchers/teachers in/out of their school	26(7.80)	308(92.20)	3.52(df=6)

* $p < 0.05$

In Table 13, from 334 respondent teachers only 78 (23.40%) have got access of getting research works of other teachers, whereas 256 (76.60%) of the teachers under the study have not such opportunity. Teachers were also asked whether there was an opportunity in their school to disseminate research works by researchers/teachers in/out of their school. However, only 26 (7.80%) of the respondents have said "yes there is", though 308 (92.20%) of the teachers responded that there was no any opportunity of disseminating research works.

It is also possible to understand that there was no difference among secondary schools in Eastern Gojjam regarding to research works dissemination. Since both the obtained values 1.97 and 3.52 of χ^2 for 6 *df* does not exceed the critical value 12.59 at 0.05 level of significance. It is possible to conclude that there was no difference among the schools pertaining to educational research work dissemination.

Table 14: Mechanisms of research works dissemination.

No	Teachers said there was an opportunity of research works dissemination by	Number of teachers
1	Conference	4
2	Publication	7
3	Symposium	2
4	Others	13

As depicted on Table 14, from the total 26 teachers who said there was an opportunity of research works dissemination were: 4 teachers through conference, 7 teachers through publications, 2 teachers through symposium and 13 teachers through CPD and other programs. Thus, more teachers participated while research works presented in CPD programs than the other.

Furthermore respondent teachers were asked to specify their suggestion to solve the problem of disseminating research works in secondary schools. Thus, teachers point out different ways which used to disseminate research works. Some of the important mechanisms include copies of teachers works have been put in libraries; teachers' research works would be presented on different teachers meeting by providing some time, if there is seasonal research discussion on schools cluster level and if there is experience-sharing habits among secondary schools, and secondary schools to relative colleges/universities regarding to educational research.

4.7. Factors Affecting Teachers Involvement in Educational Research

4.7.1. Teachers Competence in Educational Research

Respondent teachers were asked to indicate their level of agreement to the statements focused on teachers educational research competency by choosing one among the alternatives in five rating scale ranging from “very low=1” to “very high=5”. The responses were analyzed as follows.

Table 15: Sex, qualification and training in research differences in teachers' competence in educational research.

Variable	Attribute	N	Mean	Std.dev	t-value
Sex	Male	278	3.07	0.89	1.09
	Female	56	2.95	0.73	
Qualification	Diploma	55	2.74	0.95	2.66*
	Degree	278	3.12	0.84	
Training in research	Yes	268	3.15	0.76	4.44*
	No	66	2.14	1.15	
Weight mean=3.05					

* $p < 0.05$

Table 15 depicted that the mean score of male teachers' research competence was 3.07 with a standard deviation of 0.89. The corresponding mean score for female teachers was 2.95 with standard deviation 0.73. The comparison of mean scores in Table 15 shows there was no statistically significant difference in educational research personal competence between male and female teachers.

The mean score of diploma teachers' research competence was 2.74 with a standard deviation of 0.95; whereas the corresponding mean score for degree holder teachers' was 3.12 with standard deviation of 0.84. The data revealed there was a significant difference in educational research doing ability between diploma and degree holder teachers ($t = 2.66$, $p < 0.05$) in favor of degree holders.

The mean score of teachers who attended educational research methodology courses research competence was 3.15 with a standard deviation 0.76; while the corresponding mean score for teachers who did not attended research training was 2.14 with a standard deviation of 1.15. The data showed that there was a statistically significant difference between trained and untrained teachers in research methodology ($t = 4.44, p < 0.05$). This indicates that teachers who attended educational research course have better research competence than teachers did not attend. Besides, because of the standard deviation of not trained teachers (1.12) greater than trained teachers (0.76), the disparity of research doing ability more in teachers who had not attended the research course than who attended.

Table 16: Descriptive statistics for teachers' competence in educational research by specialization and service.

Variable	Attribute	N	Mean	Std.dev
Specialization	Language	76	3.21	0.70
	Social science	88	3.19	0.69
	Natural science	131	3.24	0.83
	Others	39	1.79	0.58
Service	≤ 5 years	192	3.19	0.92
	6-12 years	93	2.90	0.77
	≥ 13years	47	2.82	0.70
Weight mean=3.05				

Table 17: Summary of one-way ANOVA for teachers' competence in educational research by specialization and service.

Variable		Sum of Squares	df	Mean Square	F
Specialization	Between Groups	69.82	3	23.27	42.79*
	Within Groups	179.49	330	.54	
	Total	249.31	333		
Service	Between Groups	9.97	2	4.99	6.86*
	Within Groups	239.05	329	.73	
	Total	249.02	331		

* $p < 0.05$

As shown in Table 16 (p.55) the mean score language, social science and natural science teachers' research competence were 3.21, 3.19 and 3.24 respectively. While, the mean score of teachers who were classified under "others" was 1.79. Comparison of the mean scores using ANOVA showed that, there was statistical significant difference in research doing competence among four categories ($F_{(3,330)} = 42.79, P < 0.05$). As a result in Table 18, "other" fields of study teachers have weak research doing ability than teachers whose area of specialization was language, social science and natural science.

Table 18: Summary of Post Hoc Test (Scheffe) for teachers' competence in educational research by specialization and service.

(I) specialization	(J) specialization	Mean Difference (I-J)	Std. Error
Language	social science	0.01	0.11
	natural science	0.03	0.11
	others	1.41(*)	0.15
Social science	natural science	0.04	0.10
	others	1.40(*)	0.14
Natural science	others	1.44(*)	0.13
(I) service	(J) service	Mean Difference (I-J)	Std. Error
< 5 year	6-12 years	0.37(*)	0.11
	>13 years	0.29	0.14
6-12 years	>13 years	0.080	0.15

* $p < 0.05$

The mean scores of teachers who had low, medium and high teaching experience research competence were 3.19, 2.90 and 2.82 respectively. Comparison of the mean scores using ANOVA indicated that there is a significant difference in research competence among the three groups ($F_{(2,329)} = 6.86, P < 0.05$). Consequently, the Post Hoc Test in Table 18 point out that, teachers who had low teaching experience have better research doing competence than teachers who had 6 and more years teaching experience.

Furthermore the weight mean 3.05 indicate that, the majority teachers have medium knowledge and skill in educational research. Meaning that, the majority of teachers under the study have medium competency of defining a research problem, preparing basic research questions, using sampling system, preparing research proposal, preparing review of literature, referencing literature sources, preparing questionnaire, analyzing data, interpreting research result, providing conclusion based on the result and writing research report. However, there are significant numbers of teachers who have a problem in educational research competence.

4.7.2. Teachers Attitudes toward Research

Teachers perception about or attitudes toward educational research has an important role in influencing either positively or negatively. To know the attitude of teachers towards educational research, participants were asked to show their reaction to the statements by choosing one among the alternatives in five rating scale ranging from “strongly disagree=1” to “strongly agree=5”. The responses were analyzed as follows.

Table 19: Sex, qualification and training in research with teachers' attitude toward educational research.

Variable	Attribute	N	Mean	Std.dev	t-value
Sex	Male	278	3.71	0.97	0.78
	Female	56	3.62	0.82	
Qualification	Diploma	55	3.57	0.94	1.08
	Degree	278	3.72	0.95	
Training in research	Yes	268	4.03	0.49	19.05*
	No	66	2.32	1.09	
Weight mean=3.70					

* $p < 0.05$

As it can be observed from Table 19, the mean score of male teachers' attitudes towards educational research was 3.71 with a standard deviation of 0.97. The corresponding mean score for female teachers was 3.62 with a standard deviation of 0.82. From this means, it seems that

there was no such observable difference between male and female teachers attitude toward education. Both male and female teachers' attitude mean values are well-matched to the weight mean 3.70. The t-test supported that there was no statistical difference in attitudes toward research between male and female teachers.

The mean score of degree holder teachers' attitude toward educational research was 3.72 with a standard deviation of 0.95. The corresponding mean score for diploma holder teachers' was 3.57 with a standard deviation 0.94. The comparison of mean scores shows there was no statistically significant difference in attitudes toward educational research between degree and diploma holder teachers.

The mean score of teachers who attended research training attitude toward educational research was 4.32 with a standard deviation of 0.49; while the corresponding mean score for untrained teachers in educational research was 2.32 with a standard deviation 1.09. Analogously the attitudinal mean score of trained teachers was compatible to the weight mean 3.70 whereas the untrained one was different. These indicate that, there was a statistically significant attitudinal difference between trained and untrained teachers in educational research ($t = 19.5, p < 0.05$). This implies teachers who have got educational research training were favorably disposed than who had not got training. In addition the result revealed that the attitude toward research of untrained teachers more diverge than trained one, since its standard deviation value 1.09 is more greater than 0.49.

Table 20: Descriptive statistics for teachers' attitude toward educational research by specialization and service.

Variable	Attribute	N	Mean	Std.dev
Specialization	Language	76	3.70	0.86
	Social science	88	3.97	0.64
	Natural science	131	3.76	0.91
	Others	39	2.87	1.28
Service	≤ 5 years	192	3.71	1.00
	6-12 years	93	3.79	0.96
	≥ 13years	47	2.90	0.58
Weight mean=3.70				

Table 21: Summary of one-way ANOVA for teachers' attitude toward educational research by specialization and service.

Variable		Sum of Squares	df	Mean Square	F
Specialization	Between Groups	33.80	3	11.27	14.15*
	Within Groups	262.66	330	.80	
	Total	296.46	333		
Service	Between Groups	2.89	2	1.44	1.62
	Within Groups	293.57	329	.89	
	Total	296.45	331		

* $p < 0.05$

The mean scores of teachers who specialized in area of studies language, social science and natural science attitude toward educational research were 3.70, 3.97 and 3.76 in that order. But, the mean score of teachers who classified under "others" attitude toward research was 2.87. Both attitudinal mean scores of language, social science and natural science teachers were compatible to the weight mean 3.70 while the other teachers was different. This specifies that there was statistically significant attitudinal difference in regard educational research among teachers who categorized "others" and other field of studies ($F_{(3,330)} = 14.15, p < 0.05$) in favor of language, social science and natural science teachers as the result in Table 22 (p. 60). Besides, there were more attitudinal differences among "other" teachers than language, social science and

natural science teachers, since the standard deviation 1.28 greater than the other standard deviations.

Table 22: Summary of Post Hoc Test (scheffe) for teachers' attitude toward educational research by specialization and service.

(I) specialization	(J) specialization	Mean Difference (I-J)	Std. Error
Language	social science	0.27	0.14
	natural science	0.06	0.13
	others	0.83(*)	0.18
Social science	natural science	0.21	0.12
	others	1.10(*)	0.17
Natural science	others	0.89(*)	0.16

* $p < 0.05$

The mean score of low, medium and high teaching experience teachers' attitude toward research were 3.70, 3.79 and 3.90 respectively. The three mean scores are well-matched with the weight mean 3.70. The result indicates that there was no statistically significant difference in attitude toward educational research among teachers three category of service.

Moreover the weight mean 3.70 specify that the greater part of teachers have favorable attitude toward educational research. The majority of respondent teachers did not agree to the assumption that educational research has to be left only to those who have a specific training in educational research. They believed that, conducting research is one of their tasks as teaching. Since, research is the best tool to improve the teaching-learning process. However there are significant numbers of teachers who have negative attitude to educational research.

4.7.3. Lack of Ample Time

Teachers need to provide adequate time in order to be able engage in research activity. Overburden teachers could not have enough time to afford to research works. Regarding availability of time for teachers to carry out research, participants were asked to show their reaction to the statements by choosing one among the alternatives in five rating scale ranging from “strongly disagree=1” to “strongly agree=5”. The responses were analyzed as follows.

Table 23: Sex and qualification with teachers' lack of ample time to doing educational research.

Variable	Attribute	N	Mean	Std.dev	t-value
Sex	Male	278	2.56	0.76	0.45
	Female	56	2.59	0.81	
Qualification	Diploma	55	2.70	0.82	1.57
	Degree	278	2.52	0.76	
Weight mean=2.55					

* $p < 0.05$

As shown in Table 23, the mean scores of male and female teachers' lack of ample time in doing research were 2.56 and 2.59 respectively. The corresponding mean scores for diploma and degree holder teachers were 2.70 and 2.52 respectively. From these means, it seems that there was no such observation difference between male and female teachers as well as diploma and degree holder teachers in lack of adequate time to doing research. Both the t-test values strengthen that there were no statistical significant differences between male and female teachers; and diploma and degree holder teachers in lack of ample time to research.

Table 24: Descriptive statistics for teachers' lack of ample time in doing educational research by specialization, service and teaching load.

Variable	Attribute	N	Mean	Std.dev
Specialization	Language	76	2.52	0.86
	Social science	88	2.55	0.63
	Natural science	131	2.60	0.82
	Others	39	2.45	0.69
Service	≤ 5 years	192	2.50	0.74
	6-12 years	93	2.57	0.81
	≥ 13years	47	2.72	0.82
Teaching load	< 10 periods/week	35	2.50	0.77
	11-15 periods/week	35	2.28	0.69
	16-20 periods/week	115	2.41	0.71
	> 20 periods/week	114	2.75	0.80
Weight mean=2.55				

Table 25: Summary of one-way ANOVA for teachers' lack of time in doing educational research by specialization service and teaching loads.

Variable		Sum of Squares	df	Mean Square	F
Specialization	Between Groups	0.86	3	0.29	0.48
	Within Groups	197.15	330	0.60	
	Total	1.98	333		
Service	Between Groups	1.92	2	0.96	1.61
	Within Groups	196.09	329	0.60	
	Total	198.01	331		
Teaching load	Between Groups	11.11	3	3.70	6.46*
	Within Groups	185.72	324	0.57	
	Total	196.83	327		

* $p < 0.05$

As indicated in Table 24, the mean scores of lack of adequate time to carry out educational research of groups with respect teachers' qualification were 2.52, 2.55, 2.60 and 2.45 respectively. The corresponding mean scores for groups with respective to teachers service were

2.50, 2.57 and 2.72 respectively. As shown in Table 25 (p. 60), there were no statistical significant difference among the four groups of teachers' specialization and the three groups of teachers' service.

However, there was statistical significant difference in lack of abundant time doing research among four groups teaching load ($F_{(3,324)} = 6.46, p < 0.05$). The result in Table 26 specifies that, teachers who have 20 and above periods/week were overloaded than their counter part.

Furthermore the weight mean 2.55 showed that the majority of teachers have not exaggerated teaching load and other duties that block them to conduct research.

Table 26: Summary of Post Hoc Test (scheffe) for teachers' lack of time in doing educational research by specialization service and teaching loads.

(I) periods	(J) periods	Mean Difference (I-J)	Std. Error
< 10 periods	11- 15 periods	0.22	0.18
	16- 20 periods	0.09	0.15
	> 21 periods	0.26	0.14
11- 15 periods	16- 20 periods	0.13	0.15
	> 21 periods	0.48(*)	0.14
16- 20 periods	16- 20 periods	0.35(*)	0.09

* $p < 0.05$

4.7.4. Support from Schools, Education Officers and other Staffs

In order to be effectively engaged in research activity; teachers need to support from the school, the educational officers and the other staffs. From these; an administrative support in case of encouraging and facilitating teacher researchers as well as establishing effective and autonomous organizational structure for educational research is the main one. In this regard, the respondents were asked to report the status of support rendered by choosing one among the

alternatives in five rating scale ranging from “strongly disagree=1” to “strongly agree=5”. The responses were analyzed as follows.

Table 27: Sex and qualification differences in teachers' getting support for doing educational research.

Variable		N	Mean	Std.dev	t-value
Sex	Male	278	2.01	0.73	0.76
	Female	56	2.08	0.79	
Qualification	Diploma	55	2.12	0.75	1.64
	Degree	278	1.98	0.74	
Weight mean=2.01					

*** p<0.05**

Table 27 depicted that the mean score of male teachers getting support from school, education officers and other staffs for doing educational research was 2.01 with in standard deviation of 0.73. The corresponding mean score for female teachers was 2.08 with a standard deviation of 0.76. The t-test indicates there was no statistical significant difference in support rendered between male and female teachers.

In the same way, the mean score of diploma holder teachers getting support from school, education officers and other staffs for doing educational research was 2.12 with a standard deviation of 0.75. The corresponding mean score for degree holder teachers was 1.98 with a standard deviation 0.74. The t-test indicates there was no statistical significant difference in getting support between diploma and degree holder teachers.

Table 28: Descriptive statistics for teachers' getting support in doing educational research.

Variable		N	Mean	Std.dev
Specialization	Language	76	2.18	0.79
	Social science	88	1.94	0.71
	Natural science	131	1.96	0.77
	Others	39	2.01	0.72
Service	≤ 5 years	192	1.95	0.71
	6-12 years	93	1.94	0.78
	≥ 13 years	47	2.38	0.72
Teaching load	< 10 periods/week	35	1.98	0.75
	11-15 periods/week	35	2.01	0.69
	16-20 periods/week	115	2.01	0.78
	> 20 periods/week	114	2.03	0.74
Weight mean=2.01				

Table 29: Summary of one-way ANOVA for teachers' support rendered in doing educational research.

Variable		Sum of Squares	df	Mean Square	F
Specialization	Between Groups	2.94	3	0.98	0.15
	Within Groups	181.36	330	0.55	
	Total	184.31	333		
Service	Between Groups	7.65	2	3.82	7.12*
	Within Groups	176.61	329	0.54	
	Total	184.26	331		
Teaching load	Between Groups	0.11	3	0.04	0.06
	Within Groups	181.95	324	0.56	
	Total	182.05	327		

* $p < 0.05$

As shown in Table 28; the mean score of teachers who specialization language, social science, natural science and other teachers' getting support for educational research were 2.18, 1.94, 1.96 and 2.01 respectively. There was no statistically significant difference among four categories of teacher specialization regard getting support.

The mean scores of teachers who served less than or equal to 5 years, 6-12 years and 13 and above years getting support were 1.95, 1.94 and 2.38 respectively. The data revealed

statistically significant difference among three group of teachers service ($F_{(2,329)} = 7.12, p < 0.05$) in favor of teachers who served 13 and above years, as in Table 30 point out. However, the data showed there was no statistically significant difference among four groups of teachers teaching load.

Table 30: Summary of Post Hoc Test (Scheffe) for teachers' getting support in doing educational research.

(I) service	(J) service	Mean Difference (I-J)	Std. Error
< 5 year	6-12 years	0.01	0.09
	>13 years	0.43(*)	0.12
6-12 years	>13 years	0.44(*)	0.13

*** $p < 0.05$**

Furthermore, the weight mean 2.01 indicates that there was lack of support rendered for teachers who doing educational research from school, educational officers and other staffs. Confirming this, the interviews that made from principals and woreda education officers almost clearly indicate that there was no incentive provided for teachers who did research except acknowledgment letters. As the principals and woreda education office heads explained, sometimes they write acknowledgment papers for teachers who did educational research. In addition, as the research works quality and necessity, they send the research reports for higher education office next to them (i.e. school to woreda, woreda to zone and zone to region).

In line with this, the majority school principals reported that currently the concentration of higher authorities' from woreda to zone and/or region was on the intake of primary education. Less emphasis was given to secondary schools education. Secondary school principals were busy on facilitating only the teaching- learning process without adequate assistance of higher bodies. As the principals explained, their attention for educational research was less from the expected to them unless teachers who would like engage educational research request supporting. Similarly

the interview reports that made from woreda and zone education officers revealed that there was expectation educational research works from secondary school teachers, without providing adequate assistance.

On the other hand, to facilitate teachers' involvement in educational research as well as to create a research climate at school level, the presence of research coordinating unit is unquestionable. Considering this, teachers were asked whether a research coordinating unit at their school and woreda education office is. The summary of responses is presented in Table 31.

Table 31: Availability of research coordinating unit

No	Items	Reponses			χ^2 value among the schools and woreda
		Yes (%)	No (%)	I don't know	
1	Is there a research coordinating unit at your school level?	71(21.30)	257(76.90)	-	7.75(df=6)
2	Is there a research coordinating unit at your Woreda Education Office?	38(11.40)	76(22.80)	218(65.30)	

* $p < 0.05$

As shown from Table 31, the majority of the respondent teachers (76.9%) replied that there was no research coordinating unit in their school. Whereas the rest 21.3% of the teachers reported that there was a research coordinating unit in their school. Correspondingly, 65.3% of the respondents were not known whether there was or no research coordinating unit at their woreda education office. The other 22.8% of teachers said that there was no research coordinating unit in their woreda. However, the rest 11.4% of the teachers reported that there was a research coordinating unit in their woreda. In this connection the interviews that made from directors, woreda and zone education officers show that there was a research coordinating unit at school; in contrast at Woreda and Zone, temporary committees were established for the purpose

of evaluating research papers while schools send to them. But, the research coordinating units in schools have no visible function for teachers.

Besides, to see whether there is a significant difference among the seven secondary schools under the study regarding research coordinating unit, chi-square test were applied as shown in Table 31 (p.67). Since the obtained value 7.75 of χ^2 does not exceed the critical value 12.59 of χ^2 at the 0.05 level of significance and 6 *df*. So, it may conclude that there was no difference among the secondary schools in the case of functionality of their research coordinating unit.

4.7.5. Availability of Resource to Undertaking Educational Research

The availability and utilization of budget allocation, relevant educational literatures (such as research books, journals, manuals, and model research papers or reports) in the libraries/book stores, equipments and other facilities have become critical variables to enhance teachers' involvement in educational research. In this regard, respondents were asked to report the availability of such things in their school by choosing one among the alternatives in five rating scale ranging from "strongly disagree=1" to "strongly agree=5". The responses were analyzed as follows.

Table 32: Teachers perception in the availability of resource for educational research.

Variable	Attribute	N	Mean	Std.dev	t-value
Sex	Male	278	2.12	0.74	0.16
	Female	56	2.10	0.58	
Qualification	Diploma	55	2.17	0.59	0.79
	Degree	278	2.10	0.74	
Weight mean=2.12					

* $p < 0.05$

As it can be observed from Table 32, mean score of male availability of resource for doing educational research was 2.12 with a standard deviation of 0.74. The corresponding mean score for female teachers was 2.10 with a standard deviation of 0.58. The t-test result shows that there was no statistical significant difference between male and female teachers in case of availability of resource rendered.

The mean score of degree holder teachers' availability of resource to doing educational research was 2.17 with a standard deviation of 0.59. The corresponding figures for diploma holder teachers' were 2.10 and 0.74 respectively. The analysis shows there was no statistically significant difference between degree and diploma holder teachers.

Table 33: Descriptive statistics for teachers' perception in availability of resource in doing educational research.

Variable		N	Mean	Std.dev
Specialization	Language	76	2.19	0.71
	Social science	88	2.02	0.67
	Natural science	131	2.14	0.78
	Others	39	2.10	0.61
Service	≤ 5 years	192	2.02	0.67
	6-12 years	93	2.08	0.68
	≥ 13 years	47	2.60	0.79
Teaching load	< 10 periods/week	35	2.08	0.75
	11-15 periods/week	35	2.00	0.69
	16-20 periods/week	115	2.13	0.78
	> 20 periods/week	114	2.14	0.74
Weight mean=2.11				

Table 34: Summary of one-way ANOVA for teachers' perception in availability of resource for doing educational research.

Variable		Sum of Squares	df	Mean Square	F
Specialization	Between Groups	1.34	3	0.46	0.86
	Within Groups	170.32	330	0.52	
	Total	171.66	333		
Service	Between Groups	13.07	2	6.53	13.66*
	Within Groups	157.36	329	0.48	
	Total	170.43	331		
Teaching load	Between Groups	0.81	3	0.27	0.51
	Within Groups	166.83	324	0.52	
	Total	167.64	327		

* $p < 0.05$

The one-way ANOVA in Table 34 shows there was no statistically significant difference in getting resource among four categories of teachers' specialization. Similarly, the data indicates that there was no statistical significant difference among four categories of teachers teaching load. However, the data revealed statistically significant difference in availability of resource rendered to doing educational research among three groups of teachers service ($F_{(2,329)} = 13.66$, $p < 0.05$) in favor of that teachers who have high teaching experience, as the result of Post Hoc Test specify in Table 35.

Table 35: Summary of Post Hoc Test (Scheffe) for teachers' availability of resource rendered in doing educational research by specialization service and teaching loads.

(I) service	(J) service	Mean Difference (I-J)	Std. Error
< 5 year	6-12 years	0.07	0.09
	>13 years	0.58(*)	0.11
6-12 years	>13 years	0.52(*)	0.12

* $p < 0.05$

Moreover the weight mean 2.11 indicates that there was lack of availability of resource to carryout educational research in EGSS. The interviews taken from school principals, Woreda and

Zone officers also strengthened that there was no budget allocated for educational research as a whole. However, there were limited stationery (one ream and few pens) from schools that provide for teachers who conduct educational research.

4.7.6. Which Factors' are More Responsible to Affect Teachers Involvement in Research?

As already discussed in the above, it was attempted to investigate the factors that hamper teachers from undertaking educational research. To evaluate the degree of hindrance of these factors, respondents were asked to rate the degree of seriousness of the factors in five level ranks. The factor are ranked after the weighted mean of each item analyzed based on the response obtained.

Table 36: Rank of factors which affect teachers research involvement by sex and area of specialization

N0.	Item	Rank		
		All Teachers	Female teachers	Other teachers
1	Lack of attitudes toward research	4	3	4
2	Lack of finance, resource, and facilities	1	2	2
3	Lack of knowledge and skill in research methodology	3	4	1
4	Lack of support from schools, educational officers and other staffs	2	1	3
5	Shortage of time	5	5	5

As it can be observed from Table 36, teachers as a whole, lack of finance, resource and other facilities ranked first, lack of support from schools, educational officers and other staffs second, lack of knowledge and skill in research methodology third, lack of attitudes toward research fourth and shortage of time fifth.

Female teachers on their side also, lack of support from schools, educational officers and other staffs ranked first, lack of finance, resource and other facilities second, lack of attitudes toward research third, lack of knowledge and skill in research methodology fourth and shortage of time fifth.

Other teachers such as economics, business, technical drawing, physical education and soon ranked, lack of knowledge and skill in research methodology first, lack of finance, resource and other facilities second, lack of support from schools, educational officers and other staffs third, lack of attitudes toward research fourth and shortage of time fifth.

4.8. Teachers' Future Plan to Conduct Educational Research

Teachers were also asked if they have plans or intentions to conduct educational research in the future. It was found out from their response that 263 (78.7%) of the respondent teachers had a plan to carry out research. While 68 (20.4%) of teachers had not plan to undertake educational research. The responses seem to be promising if taken for granted as they appear. However, the majority of teachers may conduct research if reference and stationeries are available in their school and educational officers assist and give attention to educational research.

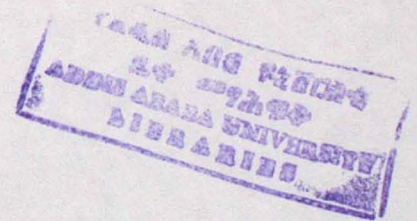
Table 37: Teachers future plan to do research.

Item		Number	%
Do you have a plan to conduct educational research in the future?	Yes	263	78.7
	No	68	20.4
	Missed	3	0.9
Total		334	100

In the teachers plan to do an investigation within their schools/ classrooms for the future; there were so many issues or abundance of problems. These issues were in relation to promoting teaching-learning process. Most of the issues which teachers will try to investigate were the same

across the schools. Some of the issues include causes of poor academic performance of female students, mechanisms of improving the quality of education, disciplinary problems of students, impact of civic education on students' behavior, perception of teachers to continuous professional development (CPD) courses, causes of teachers dissatisfactions on teaching, application of learner-centred approach, how to improve the speaking and writing skill of students in English and Amharic subjects, student-teacher relationship, cause of conflicting among staffs, teacher-parent/community relationship, causes of students' underachievement in different subjects and grades and resolution mechanisms, causes of students cheating at examination room, communities perception to civic education, and comparison of old and new educational policies outcomes.

However, there were significant numbers of teachers who have no plan to conduct research. Because, as teachers were reacted to open ended question, they have lack of knowledge and reference material and moreover they were demoralized by ignorance of policy makers and other higher educational officers to research results, especially those conducted by teachers.



Chapter 5: Discussion

The results which were driven from the data taken from 334 teachers, 7 directors, 13 Woreda and Zone education officers and document analysis were discussed with related literatures in this chapter under the selected themes.

5.1. Training of Teachers in Educational Research

Knowledge and skill in educational research that were acquired either during the initial training or through short term trainings provided on the job are important requirements to carry out study. Since training is presumed as an important input to improve teachers ability of doing research. The analysis of respondents' responses revealed that the majority of teachers' have attended research methodology courses at universities/colleges level, while less number of teachers was participated in seminar, workshop, or in-service trainings in educational research. This revealed that most teachers got the trainings during their initially, while the trend of providing on job trainings to secondary school teachers in organized seminars and workshops was very weak in the zone.

There was no statistical significant difference among teachers' sex, qualification and service in their educational research training. But there was statistical significant difference in teachers training across their area of specialization. As compared to other field of study, less number of teachers who classified under "others" was taken training in educational research. Moreover, "other" teachers (such as technical drawing, economics, business, HPE) and some natural science, language as well little social science teachers who graduated from applied stream (out of education colleges) did not attended any research methodology courses. This disparity of teachers training might affected their educational research involvement.

Those who took the courses and the trainings reported that their training was useful to undertake educational research, helped in exposing school problems to the public and seek solutions. However there were significant number of teachers who argue that the important of the course contents and the method of trainings.

These signify that the need to improve the quantity, quality and relevance of training programs. As Mwaria and Wamahiu (1995) noted, training educational researchers in research methodology is key element to improve educational research process. Even those teachers who took research methodology courses, in-service trainings, seminars, workshop and short-term trainings on research should be provided to strengthen their research skill. Unless polished and sharpened by practices, by short term trainings, and by personal readings research skills and knowledge what has been learnt can vanish in time.

5.2. Teachers Involvement in Educational Research

It is believed that school practice could be improved and changed through a continuous investigation of a situation that requires improvement, seeking the means of improvement and acting accordingly (AED, 2006). In education enterprise, educational research is a remedy to this effect. Teachers are the immediate practitioners at school to inquire the routines that may hold back or facilitate the instructional process and the school environment. This could be made possible through educational research. Teachers, directors and Woreda and Zone educational officers were asked to specify teachers who did educational research accordingly. Their responses showed that only one-third of EGSS teachers were involved in research activities. The indication is that there was less effort of educational research undertaking. On the other hand, it seems an encouraging effort when compared to other finding (Abraham, 2004). Though, the majority

participants reported that, the effort made by teachers to do educational research to enhance the quality of education was almost limited unless the external force obligated them.

This study found that there was no statistically significant relationship between research involvement and sex of teachers in EGSS. The result was disagree with Yeshimebrat (2000), which found that female teachers' participation in research activities was very low as compared to males' but goes with Galton's (2003) finding. Similarly there was no difference among teachers who had different teaching load and area of specialization in their educational research involvement.

The data revealed that there was statistically association between research involvement and level of education. The participation of diploma holder teachers in research activities in EGSS was more than teachers who had first degree holder; however it was not statistically significant. This result contradicts to Galton (2003) and Hussen (2000) which was, there was moderate positive correlation between teachers' qualification and their research involvement. This might be happen the extent of external motive (such as; research to the partial fulfillment of the requirement for degree/courses and to promote in career structure ladder) that obligates teachers to do educational research more on diploma holders teachers than degree ones. Perhaps, most of diploma holder secondary school teachers in Zone are attended in-service program courses and above proper teacher (*Memihir*) in the career structure.

The analysis also revealed that the relationship between service years and educational research involvement was statistically significant. Teachers working in teaching profession for 6 and above years were more participated in research activities than teachers less served. Teacher whose services 5 and blow years were not involved in educational research in their teaching career as their counter part. Galton (2003) reported, those teachers with more years of teaching experience claimed to have given serious consideration to research, while inexperienced teachers

appeared to involve in research was inadequately. However, the result contradicts to Hussen (2000), which was teaching experience was inversely correlated with teachers' research involvement.

Taking into consideration this, teachers were asked to provide information on the extent to which their teaching experience has helped them in doing educational research. The majority of respondent teachers who did educational research said that their teaching experience has helped them highly to carryout educational research. Additionally, the mean 3.83 point out that teachers teaching experience input to undertaking educational research were high.

The results what's more indicate that teachers who had attended educational research courses were more participated in research activities than teachers who were untrained in research. The finding confirm with (Hussen, 2000), that training was the major predictor of teachers' involvement in educational research. There were some teachers who did research although they had no course attended about research while those researchers acquired training in educational research did studies more than who do not take the research course. The inference is that training seems to have provided teachers some opportunity to conduct research.

5.3. Main Issues or Problems Addressed in Research Outputs

Responses from teachers and documents analysis showed that disciplinary problems among students, teacher-student interaction, causes of students' underachievement, co-curricular activities, examination, and teaching method or technique issues were dominantly addressed problems by teacher researchers. This implies that, most of the issues that teachers tried to investigate apparently related to the practical problems they encountered in the classroom as well as within the school.

However, problems like; teaching materials and various school facilities, curricular issues, text books, teacher's role and teachers morale, leadership styles, educational administration and supervision, the quality of education, the participation of parents, teachers and community in educational program, the impact of societal factor on students academic achievement in schools, and learners need were untouched area of investigation in EGSS.

5.4. Factors that Drive Teachers to Conduct Educational Research

According to the responses from teachers who did educational research, research for the partial fulfillment of the requirement for degree, for the promotion in the career structure and followed by research for the requirements of CPD and SIP programs were dominantly initiating teachers to undertaken research in their school. The result was to some extent confirm with Yalew (2000) and Ashenafi (2007) findings.

From these factors, however, especially teachers carried out research for the partial fulfillment of the requirements for degree/courses work previously may not sustainable for the future. Thus, the involvement of teachers in educational research in EGSS was not based on sustainable factor. This is because of teachers did not stay every working times in attending courses and promoting in career structures. Courses and ladder of career structures terminate at some stage in Ethiopian situation. Perhaps the dependent of teachers' research activity on such factors may affect their involvement in educational research.

5.5. Dissemination of Research Outputs

Responses from teachers showed that, only very less number of the respondents said that there is a mechanism to disseminate research results in their school that did by teachers and other educators. This happens some times teachers presented their research works on CPD programs for

their group meets or for the other groups. Groups were formed based on the criteria teachers who had relative field of studies accordingly schools size. If the school has small numbers of teachers the groups established based on language, natural science and social science fields. Schools that have a large number of staffs established on the way department (English, Amharic, Mathematics...) or even the department staffs divided in two or three groups.

However, the majority teachers responded that there was no any opportunity of disseminating research works. Besides, there was no difference among secondary schools in Eastern Gojjam regarding to research works dissemination. The result goes with that of Befekadu (2000), Yeshimberat (2000) and USAID (2007). It indicated that there was no convenient channel of communicating research outputs in schools.

Furthermore respondent teachers were asked to specify their suggestion to solve the problem of disseminating research works in secondary schools. Thus, teachers point out different ways which used to disseminate research works. Some of the important mechanisms include copies of teachers works have been put in libraries; teachers' research works would be presented on different teachers meeting by providing some time, if there is seasonal research discussion on schools cluster level and if there is experience-sharing habits among secondary schools, and secondary schools to relative colleges/universities regarding educational research.

5.6. Factors Affecting Teachers Involvement in Educational Research

Conducting educational research need different inputs like personal competence in educational research, attitudes toward research, support from schools and woreda educational officers, time, and availability resource and other facilities. However in the previous discussion, it was made clear that the EGSS teachers did not engage in research as expected. So, under this

section responses of teachers regarding to the influence of those factors on their research participation were discussed.

i. Teachers Competence in Educational Research

The need for competency in educational research methodology becomes indispensable to individual teachers. Prior ability of teachers which develop through training in educational research is essential element for engagement in the practice but not end by itself. In this regard, the majority of teachers under the study had medium competency of defining a research problem, preparing basic research questions, using sampling system, preparing research proposal, preparing review of literature, referencing literature sources, preparing questionnaire, analyzing data, interpreting research result, providing conclusion based on the result and writing research report skill that used to undertaking educational research on their own level as the teachers explained. The result goes with Hussen (2000), but contradicts to Abraham (2004).

However, there were many teachers who had a competency problem in doing research that affect their involvement, though the magnitude of the problem varies across secondary school teachers. To make out the significant difference among teachers in research aptitude, the responses were analyzed using mean, standard deviation, t-test and/or one-way ANOVA accordingly.

The result indicates that, there was no statistically difference in educational research personal competence between male and female teachers. The two group teachers had medium compatible ability in educational research.

On the other hand, the data revealed there was statistically significant difference ability in educational research between diploma and degree holder teachers, among teachers four category of area of specialization, among teachers three category of service and between trained and

untrained in educational research. As a result, teachers who did first degree; attend training in educational research and low teaching experience have better competence in educational research than their counter parts. But, "other" fields of study teachers have weak research doing ability than teachers whose area of specialization was language, social science and natural science. Besides, there was more disparity of research doing ability among teachers who did not attend any research course than who did attended.

ii. Teachers Attitudes toward Research

It is essential for teachers to become familiar with and develop an appreciation of the nature of the research process. The findings revealed that the attitude of teachers in EGSS was a promising for involvement in conducting educational research. The majority of respondent teachers did not agree to the assumption that educational research has to be left only to those who have a specific training in educational research. They believed that, conducting research is one of their tasks as teaching. Since, research is the best tool to improve their teaching. This may clearly imply that their trust was that all teachers need to be researchers. The result also shows that many teachers have interest toward conducting educational research. The finding seems to be consistence with Seyoum's (1998), Yeshemebrat (2000), Hussen (2000) and Abraham (2004) studies, majority of the teachers in their studies had positive attitude toward educational research. And disagree with Yalew (2000), Ashenafi (2007) and USAID (2007) findings. Since an effective research would grow out of the expressed needs of the teachers involved in educational research, this finding was indeed an encouraging one.

That is not means that there were no teachers those have negative attitude to educational research. For further justification and to make out whether there was a significant difference among teachers characteristics' regarding their attitude towards educational research, the

responses are analyzed in detail. The results indicate that there was no attitudinal difference in educational research between male and female teachers; diploma and degree holder teachers; and among teachers who have low, medium and high teaching experience.

However there was statistical significant difference within teachers' attitude toward educational research between teachers who had trainings in educational research and teachers who did not attended research trainings; and among teachers who categorized "others" and other field of studies. Furthermore the result revealed that, the attitude of teachers toward research of untrained teachers in educational research more diverge than trained one.

iii. Lack of Ample Time

If teachers are highly loaded with teaching and other non-teaching activities, like committee works, they are less likely to employ research since research by nature is a time taking activity. However, the majority of teachers in this study said that they have no a great problem of time to conduct research. Meaning that, time factor is found not to be major one to affect teachers' participation in research in EGSS. The result disagree with Yalew (200) and Samson (2002), but goes with Abraham (200) findings.

The results revealed that there was no statistically significant difference in teaching load effect on educational research involvement among teachers group with respect to sex, qualification, specialization and service. Besides, the weight mean 2.55 specifies that teaching load and other committee duties effect on teachers' educational research involvement is almost moderate. However, there was statistical significant difference in lack of ample time among four groups of teachers regarding teaching load. Perhaps overloaded teachers (who have ≥ 20 periods/week) may be burden on duties related to teaching-learning process. On the other hand

some teachers who have 10 and less periods/week were busy on committee and other school duties.

iv. Support from Schools, Education Officers and other Staffs

The nature of the support providing system for educational research as a whole in the zone was very low. There was no incentive for teachers who do research, the administrations were not encouraging, and there was no any research coordinating unit at woreda and zonal level that was functioning actively. Though, there was a nonfunctional research coordinating unit in school. The result goes with Yalew (2000), Abraham (2004), and USAID (2007) but, contradict to Hussen (2000) finding. This indicates that educational research was not given due attention in the zone. Hence, the support system of the schools and especially the woredas education office and the zone education department for teachers who carry out educational research needs further attention for improvement.

v. Availability of Resource to Undertake Educational Research

The respondent teachers and principals reported that, there were no budget, adequate reference materials and secretarial service to teachers that help them to undertake research at their schools. The schools libraries are ill-equipped and are not well organized. The support given was in forms of limited stationery. Almost the result goes with Yalew (2000), Abraham (2004), and USAID (2007) but, contradict to Hussen (2000) finding. Hence, this may contributed a lot for the low level of teachers' involvement in educational research. Moreover in such a situation, it might be not easy expect from teachers to do quality and standardized research.

vi. **Which Factors' are more Responsible to Affect Teachers' Involvement in Research?**

Factors like lack of reference materials, resource and facilities; in addition ignorance of educational officers to educational research were the main responsible factors that hinder teachers as a whole from educational research activity. But knowledge and skill in educational research methodology, especially for "other" teachers like economics, business, technical drawing, physical education and soon were found that the predictor factor for their research involvement.

5.7. Teachers' Future Plan to Conduct Educational Research

Responses from teachers, for question that request whether they have plans or intentions to conduct educational research in the future, showed that the majority of respondent teachers had a plan to carry out research. While nearly 1/5th of teachers had not plans to undertake educational research. It seems to be promising if taken for granted as they appear. However, those teachers may conduct research if reference and stationeries are available in their school and educational officers assist and give attention to educational research. The finding coincides to Yalew (2000) and Abraham (2004) result, which was there was indication in teachers' future intentions to undertake research.

Those teachers who have no plan to conduct research; because of they have lack of knowledge and reference material and moreover they were demoralized by ignorance of policy makers and other educational officers to research results, especially those conducted by teachers.

CHAPTER 6: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

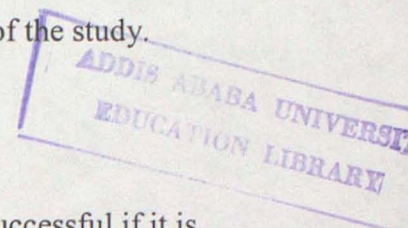
In this chapter of the paper, it has attempted to present summary, some concluding remarks and forwarded recommendations according to the major findings of the study.

6.1. Summary

The teaching-learning processes become effective, up to date and successful if it is supported by educational research. Educational research helps to describes, explains, analyzes and interprets educational phenomena. It also helps teachers and other educators to assess and reflect their teaching-learning process, explore and test new ideas, theories, methods of teaching, educational material (Habtamu, 2000; & Gemechu, 2006). This indicates that there is a need to facilitate conditions to conduct research in classroom situation by practitioners. Such type of research helps to solve educational problems and improve classroom situations.

Teachers should be inquisitive in identifying problems and suggesting solutions through continuous educational research efforts in areas that have direct or indirect impact on education. Teachers at all level are expected to conduct educational research (MoE, 2004). Accordingly, teachers' conduct educational research gives special emphasis on the education and training policy (TGE, 1994). Despite this fact, the participation of teachers in research activity use as the criteria of evaluation as well as career structure at this time (MoE, 2004).

In East Gojjam Zone at present, however, there is no evidence that indicates the status of educational research on secondary schools. Hence, the main aim of this study was to explore the status of educational research in secondary schools in the Zone. Research on the status of educational research in secondary schools provides valuable information for teachers, directors



and other responsible authorities at school, woreda, zonal and regional levels. Besides, it adds perspectives to concerned bodies and educators about the prior understanding of the involvement of secondary school teachers to conduct educational research.

The basic research questions were:

1. What was the current status of East Gojjam Zone Secondary School teachers' involvement in conducting educational research?
2. Was there a significant difference among teacher's characteristics (sex, level of qualification and experience) in their involvement?
3. What types of educational issue were addressed in research papers?
4. To what extent teacher's research works were disseminated?
5. What were the factors that affect teachers' involvement in educational research?
 - To what extent these factors are related to teacher characteristics (sex, level of qualification and experience)?
 - Which factors were more responsible to affect teachers' involvement in research activities?

A descriptive survey research method was employed in this study. For this purpose mainly quantitative but also qualitative data were collected from representative samples. Before the actual data collection the questionnaire was piloted on 25 teachers. 363 copies of questionnaire were administered for 7 secondary school teachers that taken from 22 secondary schools in the zone. From this, 334 teacher respondents did returned the questionnaire by filling appropriately, whereas the rest 29 teachers did not return the questionnaire properly. Percentages and weighted means were applied for numerical interpretation. χ^2 -test, t-test and/or one-way ANOVA were employed to examine whether there is a significant differences among teacher characteristics in their research engagement as well as factors affected their research

participation. Side by side interviews were made with 7 directors (deputy/representative directors) of secondary schools, 10 Woreda and 3 Zone officers of East Gojjam Zone in the academic year 2008/09. The data secured through interview were analyzed qualitatively. The quantitative and the qualitative data help to obtain different but complementary data on the same topic to have good understanding of the research problem. The following were the main findings of the study.

1. The majorities (80.2%) of teacher respondents have attended research methodology courses at universities/colleges, but only 23.4% of the respondent teachers were participated in seminars, workshops, or in-service trainings of educational research. There was no significant difference among teachers' by sex, qualification and service year (years of experiences) in their educational research training. But, there was statistically significant difference in teachers training among teachers with regarded their area of specialization. Especially, teachers who graduated from applied stream (out of education colleges) were not attended any research methodology courses. The majority of teachers perceived that, research trainings were useful for them to undertake educational research.
2. Only 1/3rd of EGSS teachers were found participating in educational research. There was no difference with male and female teachers and teachers who had low and high teaching load in educational research involvement. However, teachers who had attended research trainings and teachers who have 6 and more years teaching experience were more participated in research activities than their counter part. The participation of diploma holder teachers in research activities were more than teachers who had first degree, however it was not significant. The majority of teachers react that, their teaching experience help highly them to undertake research activity.

3. The study has found that, varieties of issues were investigated by teachers who did educational research. Most of these issues are interrelated to promoting students' learning. However, problems like teaching materials, school facilities, curricular issues, educational administration and supervision, the participation of parents, teachers and community in educational program and learners need are not touched by teacher investigators.
4. The requirement of partial fulfillment of degree/course, promotion in the career structure and followed by CPD and SIP programs research necessities were found dominantly initiating teachers to undertake research in their school.
5. In EGSS as whole dissemination of education research works was found to be marginalized.
6. The majority of teachers under the study have found medium personal competency in educational research. There was no statistically difference in educational research personal competence between male and female teachers. However, teachers who had first degree; attend training in educational research and low teaching service had better research doing competence than their counter parts. But, "other" fields of study teachers had weak research doing ability than teachers whose area of specialization was language, social science and natural science.
7. The majority of teachers in this study have favorable attitude toward conducting educational research. There was no attitudinal difference in educational research between male and female teachers; diploma and degree holder teachers; and among teachers who have low, medium and high teaching experience. However, teachers who attended research training (especially whose area of study language, social science and natural science) have had favorable attitude to research than "other" field of study.

8. The research doing competence and attitude toward educational research of untrained teachers in educational research methodology was found more diverges than trained one.
9. Nearly 2/3rd of the respondent teachers had no high teaching load and other committee duties that may affect their involvement in educational research. Hence, the majority teachers were found moderately loaded.
10. The administrative supports rendered to encouraging and facilitating teacher researchers as well as establishing effective and autonomous organizational structure for educational research were very weak. There were no incentives for teacher researchers from higher officers. Besides, Woreda education offices and Zone education department had no research coordinating body/structure. But secondary schools had a non-functional committee.
11. In Eastern Gojjam Zone as a whole; secondary schools had lack of budget allocation, relevant educational literatures (such as research books, journals, manuals, and model research papers or reports) in the libraries/book stores, equipments and other facilities to undertake educational research.
12. Generally, factors like lack of reference materials, resource and facilities; ignorance of higher educational officers to research and lack knowledge and skill in educational research methodology consecutively were found the main responsible factors that hinder teachers from educational research activities.
13. The majority (78.7%) of the respondent teachers had a plan to carry out educational research for the future, if reference and stationery are available in their school and educational officers assist and give attention to educational research.

6.2. Conclusions

Research activities in school enhance and enrich the teaching-learning process, thereby contributing to the improvement of educational quality. The evidences that collected from participants to identify teachers' involvements in educational research were revealed on the above findings. Based on those findings, the conclusions were made as follows.

Most of the teachers in EGSS have attended research methodology courses at universities/colleges; but the movement toward providing trainings for teachers in seminars, workshops, or in-service training programs to up date teachers educational research skill and knowledge in the Zone was found very low. Especially, teachers who graduated from applied stream (out of education colleges) have not attended any research methodology courses. The majority of teachers have not got the access of training. The courses attended and the trainings conducted were found useful to develop teachers' competences in educational research.

The involvement of EGSS teachers in educational research was low; however, the attempts done by teachers to conduct educational research were encouraging. Experienced teachers and trained teachers in educational research were more involved in research activities than less experienced and untrained ones. A variety of issues which interrelated to promoting students' learning were investigated by teacher researchers. However, problems related to school facilities, curricular issues, educational administration and supervision, the participation of parents, teachers and community in educational program and learners need were not touched by teacher investigators.

Most of the teacher researchers undertook their study for the purpose of partial fulfillment of degree requirement and to promote in the career structure. The research works as a whole were not disseminated. There was no convenient channel of communicating research outputs.

The majority of teachers under the study had medium personal educational research competency and favorable attitude toward educational research. Teachers who have first degree; attended training in educational research; and low teaching experience had better research doing competence than their counter parts. But, "other" fields of study teachers had weak research doing ability than teachers whose area of specialization is language, social science and natural science. The research doing competence and attitude toward educational research of untrained teachers in research more diverges than trained one.

Teachers were not rendered appropriate support and recognition from different parties/school, Woreda education offices and Zone department/ to undertake educational research. There was no functional research coordinating unit/structure in the zone. There were lack of budget allocation, relevant educational literatures in the libraries, equipments and other facilities which help to do educational research. Generally, factors like lack of reference materials, resource and facilities; ignorance of higher educational officers to educational research; and lack knowledge and skill in educational research methodology consecutively were found the main responsible factors that hinder teachers from educational research activity. But, the overall effect of teaching load and other school duties on the research involvement of teachers in EGSS was moderate.

In EGSS, the future directions of teacher involvement looks promising provided that those problems encountered are reduced. If references and stationeries are available in their school and educational officers assist and give attention to educational research.

6.3. Recommendations

Base on the findings of the study and the conclusions drawn, the researcher tries to suggest the following recommendations.

1. As the study revealed, the majority of teachers have attended research methodology courses. However, there was lack of training in seminars, in workshops, or in-service programs to tutor teachers who are not attended any educational courses and to up date teachers educational research skill and knowledge as a whole. Therefore, educational officers at woreda, zone and regional level have to be established a structure that help train teachers to varnish and promote their educational research competences.
2. Experience exchange help teachers by initiating them for doing educational research. Therefore, principals of the schools, woreda and zone officers should create a mechanism through which teachers exchange experience from other teachers and researchers. This could be at school level and/or cluster resource centre.
3. Research requires greater inputs such as budget allocation; relevant educational literatures in the libraries/book store; stationery, equipments and other facilities. But EGSS were found seriously suffered with lack of this inputs resulted no suitable for teachers educational research involvement. Therefore, it is recommended that secondary schools should be given attention and provided at least relevant educational literatures (such as research books, journals, manuals, and model research papers or reports); stationery, equipments(such as computers, typewriting and calculators) to satisfy the minimum research facilities through adjusting the budget allocation and mobilizing the local community and creating partnership with nongovernmental organizations.

4. The findings showed that, results of research works were not disseminated in the secondary schools. Therefore, education officers (at woreda, zonal and regional level), teachers and school directors should be established a mechanism of disseminated research results. This could be done through organizing research seminars and conferences; putting copies of teachers research works in libraries; providing some time to presentation of research works on different teachers meeting and by developing experience-sharing habits among schools to schools, and schools to relative colleges/universities regarding to educational research.
5. Besides, teachers research involvement were found highly affected by lack of appropriate support and recognition from different parties/schools, Woreda education offices and Zone education department/. So, it is recommended that functional research coordinating unites should be organized at schools, woredas, zonal and regional level that provide adequate Support for teachers.
6. Lacks of incentives that provides for teachers who did educational research were found dissatisfied teachers to involve in research activities. Therefore, it is recommended that responsible bodies at school, woreda, zonal and regional level should be motivated teachers to do educational research using different mechanisms. This could be done through providing moral assistance, acknowledgement letter, a chance to present their research on different educational meeting, a chance to publish their research output and martial or financial prizes for teachers who conduct educational research.

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Appendix A

Addis Ababa University
School of Graduate Studies
Institute of Educational Research

Questionnaire to be filled by secondary school teachers

The purpose of this study is to assess teachers' engagement in educational research practices in secondary school of East Gojjam Zone. Please, give due attention and respond to the questions honestly. I would like to assure that your response is kept confidential and it will only be used for research purpose. Don't write your name.

Thank you in advance for your cooperation!

PART I: Background Information

1. Name of your school _____
2. Sex: Male Female
3. Age _____
4. Your service years in teaching _____
5. The number of periods you are teaching per week _____
6. Your qualification: Diploma BA/B.SC/B.Ed
 Others (specify) _____
7. Your area of specialization: Language Natural Science
 Social science other (specify) _____

PART II: Basic Questions

The following items are about your training in educational research methodology. Indicate your agreement by using a tick mark (✓) on the corresponding box.

8. Have you ever attended any research methodology courses? Yes No
9. If your answer for question number 8 is 'Yes', how do you rate the usefulness of the research course in equipping you to do research is Very low Low Medium
 High Very high
10. Have you ever participated in any seminar, workshop, or in-service training to up date your research skill? Yes No
11. If your answer for question number 10 is 'Yes', how do you rate the usefulness of the research trainings in equipping you to do research is
 Very low Low Medium
 High Very high

12. Do you read different books, journals, articles and other handouts of educational research?

Yes No

The following items refer the level of your personal competence to do educational research. Indicate the level of your agreement or disagreement by using a tick mark (✓) on the corresponding number where 1= Very low, 2= Low, 3= Medium, 4= High and 5=Very high

No	Items	1	2	3	4	5
13	My knowledge to do educational research					
14	My skill to do educational research					
15	My confidence to do educational research					
16	My interest to undertake educational research in my school					
17	My experience of preparing research proposal					
18	My experience of defining a research problem					
19	My competence in analyzing data					
20	My competence in preparing questionnaire					
21	My competence in preparing research hypothesis or basic research questions					
22	My experience in preparing review of related literature					
23	My experience in referencing literature sources					
24	My competence in using sampling system					
25	My experience in interpreting data					
26	My competence in providing conclusion based on research result					
27	My experience in writing research reports					

The following items are about your attitude toward educational research. Indicate the level of your agreement or disagreement by using a tick mark (✓) on the corresponding number where 1= strongly disagree, 2= Disagree, 3=Undecided, 4= Agree and 5= strongly agree

No	Items	1	2	3	4	5
28	Research is the work of those who have specific training.					
29	Research is the best tool to improve my teaching.					
30	Research should be taken as teaching activity.					
31	Educational research contributes in solving practical educational problem					
32	Research is one of my tasks as teacher.					
33	Engagement in educational research overburdens teachers.					
34	I could be more creative if I am involved in research.					
35	I like doing research.					
36	Doing research is boring.					
37	I would prefer if I am a researcher.					
38	If research is not a criterion for promotion, I would have not involved in it.					
39	I wish if I would have training in research					
40	Doing research is extravagant time and resource					
41	Research in education has not outcome					

The following items are about your research involvement. Indicate your agreement by using a tick mark (✓) on the corresponding box.

42. Have you ever conducted research in your teaching career? Yes No

43. If your answer for question number 42 is 'Yes', please write the **Title(s)**,

1. _____
2. _____
3. _____

44. If your answer for question number 42 is 'Yes', what were the purpose(s) of the issue(s) you studied? For **promotion** in the career structure To develop **knowledge**

The **fulfillment** of my degree or diploma To **solve problems** in schooling

If any other, specify it _____

45. If your response for question number 42 is 'No', state your reason _____

46. To what extent your teaching experience contributes to your research undertaking,

Very low Low Medium High Very high

47. Do you have a plan to conduct educational research in the future? Yes No

48. If your response for question number 47 is 'Yes', on what issues will you conduct research?

49. If your response for question number 47 is 'No', state your reason _____

The following items refer to dissemination of research works. Indicate your agreement by using a tick mark (✓) on the corresponding box.

50. Have you get an access to research works of other teachers? Yes No

51. Is there an opportunity to disseminate research work in your school? Yes No

52. If your response for question number 51 is 'Yes', by what mechanism? (You can mark more than one option) Conferences publications symposiums

If any other, specify it _____

53. If your answer for question number 51 is 'No', specify your suggestion to solve the problem of disseminating research works in your school _____

The following items are about the services delivered by research coordinating unit. Indicate your agreement by using a tick mark (✓) on the corresponding box.

54. Is there any research coordinating unit in your school? Yes No

55. If your answer for question number 54 is 'Yes', what services the office provided for teachers _____

56. Is there any research coordinating unit in your Woreda Educational Office?

Yes No I don't know

57. If your answer for question number 56 is 'Yes', what services the office provided for teachers who conduct research? _____

The following items refer to institutional factors influence research activities. Indicate the level of your agreement or disagreement by using a tick mark (✓) on the corresponding number where 1= strongly disagree, 2= Disagree, 3= Undecided, 4= Agree and 5 = strongly agree.

N	Items	1	2	3	4	5
58	In my school there is adequate library services to conduct research					
59	There are up to date reference materials (books, journals, and soon) in the library that help to conduct research.					
60	In my school the budget allocation for educational research activity is adequate					
61	There is a secretarial service in my school to conduct research.					
62	In my school stationery is available for research					
63	My teaching load does not allow me to research					
64	Committee works and other duties do not allow me to do research					
65	I use my spare time to conduct research					
66	I want spend my spare time by doing income generating works than research					
67	Teachers in my school are supportive to each other in conducting research					
68	I have family responsibility that affect my research involvement					
69	My school environment is inviting to conduct research					
70	There is a moral and material incentives from higher officers to do research					
71	My school principals facilitate research activities					
72	The school has administration to encourage teachers to do research					
73	The school administration undertaken discussions on educational research					
74	Teachers who do research get material support without unnecessary bureaucratic					
75	Irrespective of the limitations in resource, I am still able to do research					

Factors among the following hinder your research work in the school. Rank each item based on its acuteness on your research involvement. Order the item ranging from 1 (to the most acute factor) up to 6 (to the least acute factor).

_____ 76. Lack of attitudes toward research.

_____ 77. Lack of support from schools, educational officers and other staffs.

_____ 78. Lack of finance, resource, and facilities.

_____ 79. Shortage of time.

_____ 80. Lack of knowledge and skill in research methodology.

_____ 81. Any other, _____

Part three: Open-ended Items

82. How do you evaluate the involvement of teachers in research in your school?

83. What are the most prevailing problems you have possibly come across in doing educational research in your school? _____

84. Please list down any suggestion which you think would help to promote teachers involvement in educational research in your school. _____

Appendix B

በአዲስ አበባ ዩኒቨርሲቲ
ድህረ ምረቃ ትምህርት ቤት
የትምህርት ጥናትና ምርምር ተቋም

በሁለተኛ ደረጃ ትምህርት ቤቶች መምህራን የሚሞላ መጠይቅ

የጥናቱ ዓላማ በምስራቅ ጎጃም ዞን ውስጥ በሚገኙ ሁለተኛ ደረጃ ትምህርት ቤቶች መምህራን የጥናትና ምርምር ተሳትፎ ያለበትን ሁኔታ መመርመርና በጥናትና ምርምር ሥራ ላይ ያጋጠሟቸውን ችግሮች ለይቶ በማወቅ በጥናት የተደገፈ የመፍትሄ ሀሳቦችን ለመጠቀም ነው። ስለዚህ ከዚህ በታች የቀረቡትን ጥያቄዎች በጥንቃቄ አንብበው እንዲመልሱ በትህትና ተጠይቀዋል። የሚሰጡት መልስ ሚስጥራዊነቱ የተጠበቀ ሲሆን ለጥናትና ምርምር ሥራ ብቻ ይውላል። ስም መጻፍ አያስፈልግም።

ስለትብብርዎ በቅድሚያ አመሰግናለሁ!!

ክፍል 1: ጠቅላላ መረጃ

1. የሚሰሩበት ት/ቤት ሥም _____
2. ያታ: ወንድ ሴት
3. እድሜ _____
4. በማስተማር ሙያ ያለዎት የአገልግሎት ጊዜ ብዛት _____
5. በሳምንት የሚያስተምሩት የክፍሉ-ጊዜ ብዛት _____
6. የትምህርት ደረጃ: ዲፕሎማ ዲግሪ(BA/BSc/BEd)
 ሌላ(ቢገለፅ) _____
7. ያጠኑት የትምህርት መስክ: ቋንቋ ማህበራዊ ሳይንስ
 ተፈጥሮ ሳይንስ ሌላ(ቢገለፅ) _____

ክፍል 2: መሰረታዊ ጥያቄዎች

የሚከተሉት ጥያቄዎች እርስዎ በጥናትና ምርምር ያገኙትን ስልጠና በተመለከተ የቀረቡ ናቸው። የሚስማሙበትን አማራጭ በመምረጥ ክፍት ለፊቱ ካለው ሳጥን ላይ (✓) ምልክት በማድረግ ያመልክቱ።

8. በዩ.ንቨርሲቲ ወይም በኮሌጅ ሲማሩ የጥናትና ምርምር ዘዴ ትምህርት (research methodology course) ወስደዋል? አዎ አልወሰድኩም
9. ለ8ኛው ጥያቄ መልስዎ “አዎ” ከሆነ፤ ትምህርቱ(ኮርሱ) የምርምር ንደፈ-ሀሳብን ታጥቀው ጥናትና ምርምር ለማድረግ ያለው ጠቀሜታ፤ በጣም አነስተኛ አነስተኛ መካከለኛ ከፍተኛ በጣም ከፍተኛ
10. የጥናትና ምርምር ችሎታና እውቀትን ለማዳበር በሚረዱ ሴሚናሮች፣ ወርክሾፖች ወይም በሥራ ላይ ስልጠናዎች ተሳትፈዋል? አዎ አልተሳተፍኩም
11. ለ10ኛው ጥያቄ መልስዎ “አዎ” ከሆነ፤ ስልጠናው የምርምር ንደፈ-ሀሳብን ታጥቀው ጥናትና ምርምር ለማድረግ ያለው ጠቀሜታ፤ በጣም አነስተኛ አነስተኛ መካከለኛ ከፍተኛ በጣም ከፍተኛ

12. በጥናትና ምርምር ላይ ያተኮሩ መግቢያዎች፣ መፅሔቶችና ሌሎች መጣጥፎች ያነባሉ?

አዎ የለም

የሚከተሉት ጥያቄዎች እርስዎ ጥናትና ምርምር ለማድረግ ያለዎትን ችሎታ(ብቃት) በተመለከተ የቀረቡ ናቸው። የሚስማሙበትን አማራጭ የያዘውን ቁጥር በመምረጥ ከጥያቄዎቹ በላይ ካሉት ቁጥሮች በአንዱ ፊት ለፊት ብቻ የ(✓) ምልክት በማድረግ ያመልክቱ። ቁጥሮችም 1=በጣም አነስተኛ፣ 2=አነስተኛ፣ 3=መካከለኛ፣ 4=ከፍተኛ እና 5= በጣም ከፍተኛ የሚሉትን የሀሳብ ደረጃዎች ይወክላሉ።

ተ.ቁ	ዝርዝር ሀሳቦች	1	2	3	4	5
13	ጥናትና ምርምር ለማካሄድ ያለኝ እውቀት (knowledge)::					
14	ጥናትና ምርምር ለማካሄድ ያለኝ ክህሎት (skill)::					
15	ጥናትና ምርምር ለማካሄድ ያለኝ በራስ መተማመን::					
16	ጥናትና ምርምር ለማካሄድ ያለኝ ፍላጎት::					
17	የምርምር ነድፍ(proposal) የማዘጋጀት ልምዴ::					
18	የምርምር ችግርን ግልፅ አድርጎ የማብራራት ልምዴ::					
19	መረጃዎችን የመተንተን ችሎታ::					
20	የመረጃ መሰብሰቢያ መጠይቆችን የማዘጋጀት ችሎታ::					
21	የምርምር መላምቶችን ወይም መሠረታዊ ጥያቄዎችን አነዳደፍ ችሎታ::					
22	የተዛማጅ ፅህፍት ክለሳ አዘገጃጀት ችሎታ::					
23	በምርምር ፅህፍት ውስጥ የምጠቀምባቸውን ተዛማጅ-ፅህፈት ምንጭ(source) አጠቃቀስ ችሎታ::					
24	የናሙና አመራረጥ ልምዴ(ችሎታ)::					
25	የምርምር ውጤትን አተረጓጎም ችሎታ::					
26	የምርምርን ውጤት ተመርኩዞ መደምደሚያ የመስጠት ችሎታ::					
27	የጥናትና ምርምር ውጤትን ሪፖርት የመጻፍ ችሎታ::					

የሚከተሉት ጥያቄዎች እርስዎ ለጥናትና ምርምር ያለዎትን አመለካከት በተመለከተ የቀረቡ ናቸው። የሚስማሙበትን አማራጭ የያዘውን ቁጥር በመምረጥ ከጥያቄዎቹ በላይ ካሉት ቁጥሮች በአንዱ ፊት ለፊት ብቻ የ(✓) ምልክት በማድረግ ያመልክቱ። ቁጥሮችም 1=በጣም አልስማማም፣ 2=አልስማማም፣ 3=ለመወሰን ያስቸግረኛል፣ 4=እስማማለሁ እና 5= በጣም እስማማለሁ የሚሉትን የሀሳብ ደረጃዎች ይወክላሉ።

ተ.ቁ	ዝርዝር ሀሳቦች	1	2	3	4	5
28	ጥናትና ምርምር በጥናትና ምርምር በሰለጠኑ ሰዎች ብቻ የሚሠራ ስራ ነው::					
29	በምርምር ሥራ የምሳተፍ ከሆነ የማስተማር ሙያዬ ይሻሻላል::					
30	ጥናትና ምርምር ማካሄድ እንደ ማስተማር ሥራ ሊቆጠር ይገባዋል::					
31	ጥናትና ምርምር በመማር ማስተማር ሥራ ላይ የሚያጋጥሙ ችግሮችን ለመፍታት አስተዋፅኦ አለው::					
32	ከመምህርነት ሥራዎቹ ውስጥ አንዱ ጥናትና ምርምር ማካሄድ ነው::					
33	ጥናትና ምርምር ማካሄድ በማስተማር ሥራዬ ላይ ጫና ይፈጥራል::					
34	በምርምር ሥራ የምሳተፍ ከሆነ ተመራማሪና ፈጣሪ እሆናለሁ::					
35	ጥናትና ምርምር ማድረግ እወዳለሁ::					
36	ጥናትና ምርምር ማድረግ አሰልጥኝ ነው::					
37	ተመራማሪ መሆን እመርጣለሁ::					
38	ጥናትና ምርምር ማድረግ የደረጃ እድገት መስፈሪት ባይሆን ኑሮ ምርምር አላደርገም ነበር::					
39	የጥናትና ምርምር ስልጠና ማግኘት እፈልጋለሁ::					
40	ምርምር ማድረግ ጊዜንና ሀብትን ማባከን ነው::					
41	በትምህርት ሥራ ላይ ምርምር ማድረግ ለውጥ አያመጣም::					

የሚከተሉት ጥያቄዎች እርስዎ በጥናትና ምርምር ሥራ ላይ ያለዎትን ተሳትፎ በተመለከተ የቀረቡ ናቸው። የሚስማሙበትን አማራጭ በመምረጥ ከፊት ለፊቱ ካለው ሳጥን ላይ የ(✓) ምልክት በማድረግ ያመልክቱ።

42. በመምህርነት ሙያ ላይ ከተሰማሩ ጀምሮ ጥናትና ምርምር አካሂደው ያውቃሉ?
 አዎ የለም

43. ለ42ኛው ጥያቄ መልስዎ “አዎ” ከሆነ፤ እባክዎ ያጠነ-ትን(ያጠኒቸውን) የምርምር ርዕሶች ከዚህ በታች ይጻፏቸው፤
1. _____
2. _____
3. _____

44. ለ42ኛው ጥያቄ መልስዎ “አዎ” ከሆነ፤ ጥናትና ምርምርዎን ለምን ጠቀሜታ አካሄዱት? (ከአንድ ጊዜ በላይ ምልክት ማድረግ ይቻላል)
 የደረጃ እድገት ለማግኘት እውቀትን ለማጎልበት ለዲግሪ ማሟያ ዕሁፍነት
 ለማስተማር መማር ሥራ ላይ የገጠመኝን ችግር ለመፍታት ለሌላ(ቢገለፅ) _____

45. ለ42ኛው ጥያቄ መልስዎ “አዎ” ከሆነ፤ የማስተማር ልምድዎ ጥናትና ምርምርዎን ለማካሄድ ያደረግለዎ አስተዋዕክ?
 በጣም አነስተኛ አነስተኛ መካከለኛ
 ከፍተኛ በጣም ከፍተኛ

46. ለ42ኛው ጥያቄ መልስዎ “የለም” ከሆነ፤ ለምን እንዳላካሄዱ ምክንያትዎን በአጭሩ ቢገልፁ

47. ለወደፊት ጥናትና ምርምር ለማካሄድ እቅድ አለዎት? አዎ የለኝም

48. ለ47ኛው ጥያቄ መልስዎ “አዎ” ከሆነ፤ በምን ርዕስ ጉዳይ ላይ _____

49. ለ47ኛው ጥያቄ መልስዎ “የለም” ከሆነ፤ ምክንያትዎን በአጭሩ ቢገልፁ፤

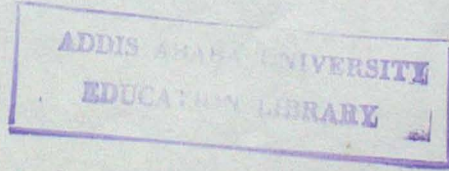
የሚከተሉት ጥያቄዎች እርስዎ ባሉበት ት/ቤት ውስጥ የጥናትና ምርምር ሥራዎች ያላቸውን ስርጭት (dissemination of research works) በተመለከተ የቀረቡ ናቸው። የሚስማሙበትን አማራጭ በመምረጥ ከፊት ለፊቱ ካለው ሳጥን ላይ የ(✓) ምልክት በማድረግ ያመልክቱ።

50. የሌሎች መምህራንን የጥናትና ምርምር ሥራዎች የማግኘት ዕድል አጋጥምዎት ያውቃል?
 አዎ የለም

51. በሌሎች ትምህርት ቤቶች ወይም በትምህርት ቤታችሁ ውስጥ የተሰሩ የጥናትና ምርምር ሥራዎች ለትምህርት ቤታችሁ መምህራን የሚቀርቡበት(የሚሰራጩበት) አጋጣሚ አለ?
 አዎ የለም

52. ለ51ኛው ጥያቄ መልስዎ “አዎ” ከሆነ፤ በምን መልክ (ከአንድ ጊዜ በላይ ምልክት ማድረግ ይቻላል)
 በኮንፈረስ በሲፖዚየም
 በሕትመት በሌላ(ቢገለፅ) _____

53. ለ51ኛው ጥያቄ መልስዎ “የለም” ከሆነ፤ የመምህራንን የጥናትና ምርምር ሥራዎች ለማሰራጨት ምን ቢደረግ ይሻላል ይላሉ?



የሚከተሉት ጥያቄዎች እርስዎ ባሉበት ት/ቤት ወይም ወረዳ የጥናትና ምርምር ሥራዎችን የሚያስተባብር አካል(ኮሚቴ) ሥራን በተመለከተ የቀረቡ ናቸው። የሚስማሙበትን አማራጭ በመምረጥ ከፊት ለፊቱ ባለው ሳጥን ላይ የ(✓) ምልክት በማድረግ ያመልክቱ።

54. በትምህርት ቤትዎ ውስጥ የጥናትና ምርምር ሥራን የሚያስተባብር አካል(ኮሚቴ) አለ?
 አዎ የለም

55. ለ54ኛው ጥያቄ መልስዎ “አዎ” ከሆነ፤ ኮሚቴው ያበረከተውን አስተዋፅኦ ባጭሩ ይግለፁ፤

56. በወረዳዎ ትምህርት ጽ/ቤት ውስጥ የጥናትና ምርምር ሥራን የሚያስተባብር አካል(ኮሚቴ) አለ?
 አዎ የለም አላውቅም

57. ለ56ኛው ጥያቄ መልስዎ “አዎ” ከሆነ፤ ኮሚቴው ያበረከተውን አስተዋፅኦ ባጭሩ ይግለፁ፤

የሚከተሉት ጥያቄዎች ጥናትና ምርምር ለማካሄድ እንቅፋት የሚሆኑ ነገሮችን በተመለከተ የቀረቡ ናቸው። የሚስማሙበትን አማራጭ የያዘውን ቁጥር በመምረጥ ከጥያቄዎቹ በላይ ካሉት ቁጥሮች በአንዱ ፊት ለፊት ብቻ የ(✓) ምልክት በማድረግ ያመልክቱ። ቁጥሮችም 1=በጣም አልስማማም፤ 2=አልስማማም፤ 3=ለመወሰን ያስቸግረኛል፤ 4=እስማማለሁ እና 5= በጣም እስማማለሁ የሚሉትን የሀሳብ ደረጃዎች ይወክላሉ።

ተ.ቁ	ዝርዝር ሀሳቦች	1	2	3	4	5
58	የትምህርት ቤታችን ቤተ-መጻሕፍት ምርምር ለማካሄድ የበቂ ጊዜ አገልግሎት ይሰጣል።					
59	በቤተ-መጻሕፍቱ ውስጥ ምርምር ለማካሄድ የሚረዱ ወቅታዊ የሆኑ የማጣቀሻ መጻሕፍቶች፤ መፅሔቶችና ሌሎች መጣጥፎች አሉ።					
60	ትምህርት ቤታችን ለጥናትና ምርምር ማካሄጃ በቂ በጀት መድሃኒት አለ።					
61	ትምህርት ቤታችን ምርምር ለሚያካሂዱ የፅህፈት አገልግሎት ይሰጣል።					
62	ለጥናትና ምርምር አገልግሎት የሚውል በቂ የፅህፈት መሳሪያ አቅርቦት ትምህርት ቤታችን አለው።					
63	ምርምር ለማካሄድ ያለብኝ የክፍለ ጊዜ ብዛት ተፅዕኖ አሳድሮብኛል።					
64	ያለብኝ የኮሚቴና ሌሎችም ሥራዎች ጫና በምርምር ሥራ እንዳልሳተፍ ተፅዕኖ አሳድረውብኛል።					
65	ትርፍ ጊዜየን አጣጥሜ በመጠቀም ጥናትና ምርምር ማካሄድ እችላለሁ።					
66	ትርፍ ጊዜየን በምርምር ሥራ ከማዋል ይልቅ ገቢ በሚያስገኙ ሌሎች ሥራዎች ላይ ማዋል እመርጣለሁ።					
67	ጥናትና ምርምር ለማካሄድ የትምህርት ቤታችን መምህራን እርስበርሳቸው ይተባበራሉ።					
68	ያለብኝ የቤተሰብ ሀላፊነት በጥናትና ምርምር ተሳትፎ ላይ ተፅዕኖ አሳድሮብኛል።					
69	ትምህርት ቤታችን ጥናትና ምርምር ለማካሄድ ምቹ ነው።					
70	ምርምር ለሚያካሂዱ ከሀላፊዎች የሚሰጥ የሞራልና የማቴርያል ማበረታቻ አለ።					
71	የትምህርት ቤታችን ርዕሰ መምህራን ጥናትና ምርምር እንዲካሄድ ያስተባብራሉ።					
72	ትምህርት ቤታችን ጥናትና ምርምር እንዲካሄድ የሚያበረታታ አሠራር አለው።					
73	የትምህርት ቤታችን አስተዳደር በጥናትና ምርምር ዙሪያ የተለያዩ ውይይቶችን ያካሂዳል።					
74	በትምህርት ቤታችን ምርምር የሚያካሂዱ መምህራን ያለብዙ ውጣውረድ የማቴሪያል እገዛ ያገኛሉ።					
75	የተለያዩ ነገሮች ችግር ቢኖርብኝም፤ ጥናትና ምርምር ማካሄድ እችላለሁ።					

ከዚህ በታች የተዘረዘሩት ነገሮች ጥናትና ምርምር ለማካሄድ እንቅፋት ሲሆኑ ይስተዋላል። በርስዎ የጥናትና ምርምር ተሳትፎ ላይ ከሚያሳድሩት ተፅዕኖ አኳያ በቅደምተከተል፤ ማለትም በጣም ተፅዕኖ የሚያሳድርብዎትን 1ኛ ቀጥሎ ተፅዕኖ የሚያሳድርብዎትን 2ኛ፤ 3ኛ እያሉ እስከ 5(6)ኛ ድረስ ደረጃ ይስጧቸው። ከሁሉም ቀላል ተፅዕኖ የሚያሳድርብዎት 5(6)ኛ ደረጃ የሰጡት መሆኑን ያረጋግጡ።

- _____ 76. ለጥናትና ምርምር ጥሩ የሆነ አመለካከት አለመኖር።
- _____ 77. ከትምህርት ባለሙያዎች፤ ሀላፊዎችና ከሌሎች የትምህርት አካላት በቂ ድጋፍ ማጣት።
- _____ 78. የገንዘብ፤ የማቴሪያልና የማጣቀሻ ፅሁፎች ግባት አለመሟላት።
- _____ 79. የጊዜ እጥረት።
- _____ 80. የጥናትና ምርምር አውቀትና ክህሎት(knowledge and skill in research methodology) አለመኖር።
- _____ 81. ሌላ(ቢገለፅ)_____

ክፍል 3: ልቅ ጥያቄዎች

- 82. በትምህርት ቤታችሁ ውስጥ ያሉት መምህራን በምርምር ሥራ ላይ ያላቸው ተሳትፎ ምን እንደሚመስል በአጭሩ ይግለጹ፤ _____
- _____
- _____
- 83. በትምህርት ቤታችሁ ውስጥ ያሉት መምህራን በምርምር ሥራ ላይ እንዳይሳተፉ የሚከለክሏቸው ምን ምን ችግሮች ናቸው? _____
- _____
- _____
- 84. በትምህርት ቤታችሁ ውስጥ ያሉት መምህራን በምርምር ሥራ ላይ ያላቸውን ተሳትፎ ለማሳደግ ምን ቢደረግ ይሻላል ይላሉ? _____
- _____
- _____

Appendix C

An Interview Guide to Collect Information from Secondary School Principals

1. How do you see/evaluate the research engagement of teachers in your school?
2. To what extent does your school encourage/ support teachers to conduct research in your school?
3. Does your school allocate budget and material resource for research works?
4. Is there a research coordinating body at your school?
5. Is a mechanism to disseminate research outputs in your school?
6. What factors hinder teachers from conducting educational research?
7. To improve teachers' involvement in educational research for the future, what suggest you?

An Interview Guide to Collect Information from Woreda and Zone Education Officers

1. How do you see/evaluate the research engagement of secondary school teachers in your Woreda/Zone?
2. To what extent does your office encourage/ support teachers to conduct research in their school?
3. Does your school allocate budget and material resource for research works?
4. Is there a research coordinating body at your office/department?
5. Is a mechanism to disseminate research outputs in secondary schools of your Woreda/Zone?
6. What factors hinder secondary school teachers in your Woreda/Zone from conducting educational research?
7. To improve secondary school teachers' involvement in educational research for the future, what suggest you?

Appendix D

List of Secondary Schools in East Gojjam

No	Name of the schools
1	Abrha Woastibha Secondary School
2	Amanual Secondary School
3	Belay Zeleke General Secondary School
4	Belay Zeleke secondary & Preparatory school
5	Bihare-Georges Secondary School
6	Debre-Elias Secondary School
7	Debre-Mark's General Secondary School
8	Debre-Mark's Preparatory Secondary School
9	Debre-worke Secondary School
10	Dibo General Secondary School
11	Ginbot 20 Secondary School
12	Gojjam-Ber Secondary School
13	Gozamen Secondary School
14	Kuye General Secondary School
15	Liyew Asres Secondary School
16	Menkorer General Secondary School
17	Mota General Secondary School
18	Mota Preparatory & Secondary School
19	Rebu Gebia General Secondary School
20	Sedie General Secondary School
21	Yduha General Secondary School
22	Yejjubie Secondary School
23	Weyin Wuha General Secondary School
24	Felege-Brihan General Secondary School
25	Gubia General Secondary School

Notice:-1. Weyin Wuha, Felege-Brihan and Gubia General secondary schools were opened in the academic year 2008/09, so they were not incorporated in this research.

According to the current educational training policy of Ethiopia:

- Secondary Schools = Grade 9-12
- General Secondary schools = Grade 9-10.
- Preparatory Secondary School = Grade 11-12