The Status and Determinants of Research Practices

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This is to certify that the thesis prepared by Tariku Kassa, entitled: *The Status and Determinants of Educational Research Practices* and submitted in partial fulfillment of the requirements for the Degree of Masters of Arts (Educational Research and Development) complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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ABSTRACT

The Status and Determinants of Educational Research Practices

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The general objective of this study was to investigate the status, determinant hindering factors, and determinant motivational strategies to the ERP of instructors of Ambo University where mixed method design was employed.The subjects of the study were 60 (male=55 and female=5) for survey and 6 for interview. Closed-ended questionnaire, open-ended questionnaire and interview were used to collect primary data. Document review was also used to collect secondary data related to AU's mission statement and profiles of academic staffs. Quantitative and qualitative data analysis techniques were used to analyze the data. The results of the quantitative and qualitative data showed the status of ERP in Ambo University was found at the medium level status. It was also found that only 32(58.2%) instructors were involved to do research. There were differences in instructors' involvement to do research in terms of their colleges and departments as it was found that colleges like 1st. CSSH, 2nd. CNCS, and 3rd, IEPS and in terms of departments, 1st English language and literature, 2nd physics, and 3rd Afaan Oromo & literature were highly in favor of ERP. Moreover, of the total respondents, majority of the sample instructors preferred action research over the other typologies of educational research. With respect to the selection of educational research methodologies, most of them preferred and applied mixed methods educational research. Multiple human, material, financial, and institutional factors hindered the involvement of AU instructors to do research like lack/inadequate research budget/fund and others. To overcome such deterring factors various applicable motivational strategies were investigated like accessing instructors' to trainings and others.

CHAPTER ONE: INTRODUCTION

This part of the research includes background of the study, statement of the problem, research objectives, research questions, significance of the study, assumptions, delimitation of the study limitations of the study, , and operational definitions to be presented respectively in the subsequent pages.

1.0 Background of the Study

Within the realm of higher education, many things are always changing: structure of higher education system, curriculum, modes of teaching, learning styles, methods of training candidates in higher education, and so on. Such higher education's issues and other bottleneck problems of the community require systematic investigation. Thus, educational research in higher education has much significance in this regards.

For examples, according to Kothari (2003), research by higher education institutions is important in studying social relationships and in giving answers to various social problems. Other studies postulated that educational research enhances the quality of instruction, ensures that the instructors are able to supervise research by their students more effectively, and do with instructors promotion: to " publish or perish" (Derebssa, 2004), fulcrum of academia (Mwapachu, 1995 cited in Derebssa, 2004), enhance the quality of teaching and learning, enrich all elements of teaching and learning, catalyst towards effective change, improved the level of teaching professionalism, help in raising and increasing scientific knowledge and assisting on future prediction, enable instructors to integrate theories and practices, implementation and evaluation process inside the academic class through providing them with knowledge, and experience derived from researches results(Berlin, 1996 and Verma and Beard, 1981).

Teshome (2004) mentions that research in higher education institutions are part of the overall renewal and development of learning, teaching, and public service activities including the dissemination of knowledge. According to him, no system of higher education can fulfill its mission and be a viable partner for society in general unless some of its teaching staff and organizational entities also carry out research, thereby, higher education and research have significant role to economic growth, poverty reduction, and sustainable development.

Regardless of the many significances of conducting research in general and educational research in particular by higher education institutions and instructors, Moore and Mercer (1995) aimed at investigating teacher's role in conducting scientific research results revealed that most instructors do not participate in improving education knowledge through research participation. In the case of study conducted by various scholars in Ethiopia such as Amare, 2000; Waktole, 2002; Teshome ,2004; Derebssa, 2004; Amera; 2005; Asrat, 2007; Mekuria, 2008; Kiflom, 2009;Birhanu, 2009; and Melese,2010, the involvement of higher education instructors in educational research was not as it ought to be.

There are many determinant hindering factors that hampered the participation of the higher education instructors in Ethiopia. For examples, Waktole (2002) who has conducted on some research problems in Jimma College of Agriculture found as that research funding, inadequate research infrastructure, lack of transport facilities, low salary scale, shortage of time, personal weakness, lack of serious administration of research, undefined research priority & strategy that solve the problem of end users, poor in-service training, absence of consultancy service in the area, shortage of senior, competent & intelligent staff, absence of incentives and recognition for high quality research findings ,and others were the major determinants to the education research in the college. In the case of Addis Ababa University, Derbssa (2004) identified several factors that were most significant impediments to the research practice in the university. These are: lack of research culture, funding of research activities, personnel capacity to conduct research, instructors' load, infrastructure and equipment to do research.

Another scholar, Asrat (2007) undertook educational research in the case of Haramaya University (Education Faculty) and found that impediments to instructors' participation in research such as lack of funding, lack of research culture, shortage of time, lack of basic skills, lack of publication outlet & dissemination. Concerning the status of the educational research in Haramaya University, in his finding, Asrat (2007) stated that "the status of educational research in Education Faculty was extremely marginal and education faculty of Haramaya University failed to meet one of its crucial element-conducting researches. Instructor's' engagement was very low or absent" (p.59).

According to the study conducted by Kiflom (2009) on "The Status of Mekelle University Research Undertaking", the researcher identified lack of incentives, lack/inadequacy of budget, lack of conducive research environment, lack of recent reference materials in the library, under utilization of

research outcomes & insufficient internet access as a major determinants to the instructors' research undertaking in the University. Also, another study in the case of Gonder University Educational Research Practices by Melese (2010) found that lack of adequate fund, lack of in-service training, and shortage of time as major determinant hindering factors. There are identified gaps that initiated the researcher to engage in the present study. These are:-

A. *Low status from policy perspectives:* The participation of higher education instructors in educational research was found insignificant. There exist discrepancies between [*what is expected* from higher education instructors; MOE ,1994,ESDP, IV,2010, & FDRE Proclamation No.,650/2009] to do research and [*what they actually have done so far*: Amare, 2000; Waktole, 2002; Teshome ,2004; Derebssa, 2004; Amera; 2005; Asrat, 2007; Mekuria, 2008; Kiflom, 2009;Birhanu, 2009; and Melese,2010] has served as the first vantage point to the researcher for this study.

B. *Low status from theoretical belief:* The gap between the theoretical belief of various scholars (Adane, 2001 in Dani'el, 2004;Teshome, 2004;and Kate, 2004) that higher education instructors must take part in research work as their duties [what is expected in the literature] and the low/weak practices/ instructors do not participate Moore and Mercer(1995) and Kothari(2003) from international perspectives and by Amare, 2000 Ethiopian context, Waktole (2002) at Jimma College of Agriculture, Teshome(2004) Ethiopian context , Derebssa (2004) at Addis Ababa University, Amera (2005) at Bahir Dar University , Asrat (2007) at Haramaya University, Mekuria (2008) at Jimma University, Kiflom (2009) at Mekelle University, Birhanu (2009) at College of Teacher Education in Tigray; and Melese (2010) at Gonder University) in educational research by higher education instructors[what is actual].

C. *Hindering factors:* factors that negatively affected the participation of instructors in Ethiopia were identified which may or may not be the cases of AU instructors have initiated the researcher, and

D. *Lack of motivation:* Lack of intensive investigation of the major determinant motivational strategies of higher educational instructors to do educational research is another reason that triggered the present study.

1.1 Statement of the Problem

Following the fall of the "Derge", the Current Education and Training Policy (1994) and the first proclamation No.351/2003, later, repealed and replaced by proclamation No.650/2009 was in place that paved a way to the massification of Ethiopian Higher Educations. The Higher education proclamation number 650/2009 stated the need for higher education instructors to undertake research as their duties, besides, their role of teaching, publications and consultancy, and community services. In Ethiopian higher education context, it is sad to say that most of the academic staff of higher institutions of learning is not engaged in research activities (Waktole, 2002). Also, according to Teshome (2004), although there are few institutions involved in relevant research, generally many of the higher education institutions in Ethiopia are not actively engaged in research activities that doesn't necessarily mean there is no attempts to carry out research in higher educations of Ethiopia. Rather it is to mean that there exists a gap due to multiple casual factors that affected the low status of education research in Ethiopian higher education.

Amare's(2000) state of educational research in Ethiopia was found at its embryonic stage/characteristic of infancy in the selection of research issues, application of designs, types of data, sampling procedures, indigenization of researchers, conceptualization of research issues, provision of recommended actions, and characterized as monographed research results or teaching materials, low in number (1,249 from 1974-1998), remained a staff –function and not a line-function, commercial motives/ profit motivated research by consultant firms, &problem of the conceptualization of educational research issues. Whereas, to Tekeste, educational research in Ethiopia has been limited to Ph. D dissertation & closely related only to the issue of educational planning during 1960's and 1970's (cited in Amare, 2000).

Another scholar, Teshome (2004) states that "the research works are in many cases undertaken for scholarly prestige, catering for individual and donor interests and lack the required capacity in solving institutional and national or social problems" (p.7).In turn, Derebssa (2004) studied the case of AAU and states that "… many of the academic staff are not engaged in research undertakings. Research administration is not seriously taken by university officials at different levels; it has been rather left to the discretion and self- service of the research staff" (p.93). Another study conducted on the status of educational research done by Asrat (2007) in Haramaya University showed that "non-

existence of educational research activity by the faculty members at the institutional level except a very few dedicated individuals" (p.33) during the period (1996/97-2005/06).

The status of educational research was also investigated in the case of College of Teacher's Education in Tigray by Birhanu (2009). He investigated with the total of 111 research participants both quantitatively and qualitatively. His finding revealed that the status of educational research in the case of Teacher's College of Tigray was found generally low. The study made with the total of 285 sample instructors and 8 university officials taken from 5 different campus of Mekelle University revealed by Kiflom (2009) showed that, with few exceptions, instructors are not actively involved in doing research. Similar study conducted in University of Gonder on the status of educational research by Melese (2010) who studied with the total of 99 participants (6 for interview and 93 for questionnaires) found that, though majority of university instructors have good perception and conviction toward the importance of research in Higher Education Institutions, the quantity of the research projects conducted and published in the university was judged as less.

The low participation of higher education instructors in educational research may be attributed to various personal, economic, and institutional variables (2.5 major determinant hindering factors section) which may or may not be the case in Ambo University. Based on identified determinant hindering factors listed in the literature, this study is designed to describe the current status of the educational research, identify the major determinant hindering factors, and identify the major determinant motivation strategies for the active involvement of AU instructors to do research.

1.2 Research objectives the study

The general objective of this study was to investigate the status, determinant hindering factors, and determinant motivational strategies to the educational research practices of instructors of Ambo University. Its specific objectives were to:

1. Describe the status of educational research practices of Ambo University,
2. Identify the major determinant hindering factors that affected the active involvement of AU instructors in conducting educational research, and
3. Identify the major determinant motivation strategies that enhance the active involvement of AU instructors in conducting educational research.

1.3 Research Questions

The study attempted to answer the following basic questions:

1. What are the current statuses of educational research practices in AU? To what extent Ambo University instructors are doing educational research?
2. Are there differences among instructors' college/institute and department in their involvement of educational research? If so, which is (are) mostly in favor of ERP?
3. Do AU instructors prefer one type of educational research typologies and methodologies over the other?
4. What are the major determinant hindering factors to AU instructors' to their ERP? What are the major motivational strategies to AU instructors to do research?

1.4 Significances of the Study

The significances of this study can be the following:

1. It contributes to academic knowledge, general public awareness and government policy regarding the status of conducting educational research practices in higher education in general and AU in particular,
2. It contributes to the identification of potential determinant deterring factors that hampered the active involvement of higher education instructors in educational research in general and AU in particular,
3. It contributes to the identification of determinant motivation strategies applicable to higher education instructors to conduct educational research in general and AU in particular, and
4. The study may give some suggestions for researchers who want to pursue for further study.

1.5 Assumptions

For the purpose of the study, the following assumptions were made:

1. Quantitative and qualitative data gathered from information sources will be current and factual,
2. Higher education instructors to be involved in the study are those participants engaged in academic teachings of Ambo University (Ambo Campus) only,
3. Higher education instructors who will respond to the survey questionnaires and personal interviews are forthcoming, objective, and truthful in their responses,
4. Status, hindering factors, and motivational strategies related to the items are those presented in the review of the literature were identifiable and measureable, and
5. The survey will be completed by the respondents to whom it will be sent via voluntary instructors to other instructors of AU.

1.6 Delimitation of the study

The study was purposively delimited to Ambo University (Ambo campus) with a major emphasis to the CNCS, CSSH, and IEPS. Added to the interest of the researcher, the researcher selected Ambo University due to lack of previous study on similar topic.

1.7 Limitations of the study

Gay and Airasian (2000) defined a limitation as some aspect of the study that the researcher knows may negatively impact the study, but over which they have no control. There were many limitations of this study:

1. Government public Universities inter-sport competition of the year 2012 was hosted by AU and held from 4 to 19 February 2012. This has elongated the time for data collection. Re-schedule was made for pilot-study (held on 22 Feb 2012) and final administration of the questionnaire,
2. AU library service was staked and affected the document review time of this study due to the shifting of the library documents from old to the newly built AU library. As a result research for AU legislation was affected. But overcome by taking from friends established during this study,
3. Obtaining the population list of the instructors of AU was another challenge but over came by the formal direction of the AU HR department heads formal direction to the AU HR planning and recruitment process owner (Annex 9), and
4. A few respondents were not willing to fill the questionnaire and didn't return within the expected time due to overloading with teaching and the researcher was questioned for respondents-pay. Nevertheless, the researcher tried his best to overcome the challenge via negotiation, explanation of the objectives of the study, via colleagues and department heads.

1.8 Operational definitions

For the sake of clarity, the following concepts were defined:

a. *Educational Research Practices:* Active participation in educational research activities by HEIs.
b. *Status:* the existing state of affairs or the present condition that refers to the position of educational research undertakings by higher education instructors.
c. *Determinant hindering factors:* any factor or condition that is deliberately varied or deliberately held constant in an experiment in order that its effect be studied or ruled out of consideration.
d. *Determinant motivation strategies:* is the process that arouses, energizes, directs, and sustains behavior and performance.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

This section of the study was focused on educational research practices related to the problem under investigation. That is, the reviews were made on various educational research practices and their status & determinants that were systematically collected and organized in to seven major sections: the concepts and typologies of research and educational research, educational research paradigms, basic elements of educational research processes in each paradigm, the status of educational research as viewed from instructors' level of involvement, determinant hindering factors to educational research practices in higher education of Ethiopia, determinant of motivation strategies of various related motivation theories, and conceptual framework were presented respectively.

2.1. The concepts of research, educational research and their typologies

This section briefly presents the concept of research and its typologies in general and the concept of educational research and its typologies in particular that were presented accordingly.

2.1.1 The Concept of Research and its typologies

Conceptually, research was defined by various scholars, for examples, research is the orderly and systematic investigation of a phenomenon for the purpose of adding to knowledge (UNESCO, 2005). Research refers to a search for knowledge, original contribution to the stock of knowledge, fountain of knowledge; an art of scientific investigation; an academic activity; comprises defining and redefining problems, formulating hypothesis or suggested solutions; collecting, organizing and evaluating data; making deductions and reaching conclusions; and carefully testing the conclusions to determine whether they fit the formulated hypothesis (Kothari, 2003).Research has many typologies. It includes:

a. ***Analytical research:*** the researcher has to use facts or information already available and analyzes these to make a critical evaluation of the material (Kothari, 2003 and IGNU2, 2005).

b. ***Applied research:*** aims at finding a solution for an immediate problem facing a society or an industrials /business organization, concerned primarily with the application of new knowledge for the solution of day-to-day problems, and discovers ways of applying them to solve social problems (Kothari, 2003 and IGNU2, 2005).

c. ***Conceptual research:*** is related to some abstract idea (s) or theory generally used by philosophers and thinkers to develop new concepts to reinterpret existing ones (Kothari, 2003).

d. ***Descriptive research:*** describes a social situation, social events, social systems, social structure, or the state of affairs that exists at present and includes methods like survey method, fact- finding enquiries of different kinds, comparative and correlation method. The major purpose of descriptive research is description of the state of affairs as it exists at present (Kothari, 2003 and IGNU2, 2005).

e. ***Empirical research***: is data – based research or evidence –based reach approach coming up with conclusion which is capable of being verified by observation, experiment, case-study, experience of factual information rather than on reason, logic or theory alone ,relies on the experience or observations alone(Kothari, 2003, IGNU2,2005, Kaufman and Kaufman, 2005, and Verma and Beard, 1981).

f. ***Exploratory or formalized research:*** is about the development of hypotheses rather than their testing, becomes useful in formulating hypothesis or testing hypotheses and theories, and the researcher has little or no knowledge of the problem or situation under study (Kothari, 2003 and IGNU2, 2005).

g. ***Fundamental research***: is mainly concerned with generalizations and formulation of a theory, gathering knowledge, and discovers principles and laws (Kothari, 2003 and IGNU2, 2005).

h. ***Qualitative research*** :is concerned with qualitative phenomenon i.e .phenomena relating to or involving quality or kind for instance, meanings individuals or groups ascribe to a social or human phenomena, presents a non-quantitative analysis with subjective assessment of attitude, opinions, and behavior that is a function of researcher's role. The process of research involves emerging questions and procedures, data typically collected in the participant's setting, data analysis inductively building from particulars to general, and the researcher making interpretations of the meaning of the data. A tradition in social science that basically depends on watching people in their territory and interacting with them on their own term and in their own language (Creswell, 2009; Kothari, 2003; and IGNU3, 2005).

i. ***Quantitative research:*** is based on the measurement of quantity or amount that is applicable to phenomena expressed in terms of quantity, is the methodological principle of positivism ,involve

the process of collecting, analyzing, interpretation, and writing the results of the study, means for testing objective theories by examining the relationship among variables and these variables, in turn, can be measured typically on instruments, so that, numbered data can be analyzed using statistical procedures (Kothari, 2003; IGNU2, 2005; and Kaufman and Kaufman, 2005).

2.1.2 The Concept of Educational Research and its typologies

Educational research is the study of behavioral patterns related to learning in schools and other educational programs. As stated by Habtamu (2000), educational research describes, explains, analyzes and interprets educational phenomena such as the objectives of education, the curricula, the teaching-learning processes, the students, the teachers, examinations, policies, administrations, instructional facilities and materials. There are various typologies of educational research such as:

a. ***Action Research:*** is concerned with the immediate application of "scientific method" /results to real life or specific situation than developing theory that is normally undertaken by practitioners and practitioners attempt to study their problems scientifically in order to guide ,correct, and evaluate their decisions and actions (IGNU2,2005 and Verma and Beard, 1981).

b. ***Case study research*****:** is research in- depth than breadth that emphasis on a single individual or situation (Verma and Beard, 1981). For example, an in-depth exploration of the patterns of friendship between students in a single class.

c. ***Correlational research:*** deals with the correlation or relationship / search for relationships between two variables or among variables through the use of various measures of statistical association (Kaufman and Kaufman, 2005; Cohen, etal, 2000). As stated by Trochim(2005), relational studies look at the relationships between two or more variables. For example, an investigation of the relationship between teachers' satisfaction with their job and various factors describing the provision of quality of teacher housing, salaries, leave entitlements, and the availability of classroom supplies.

d. ***Descriptive research:*** concerned with the nature and degree of existing situations, conditions, and events that occur in the present based on empirical observation or research whose purpose is to describe rather than to judge or to interpret (Verma and Beard, 198). For example, a survey of the physical condition of school buildings in order to establish a descriptive profile of the

facilities that exist in a typical school. According to Trochim(2005), descriptive studies are designed primarily to document what is going on or what exists.

e. Experimental research: way of dealing with the problem of cause and effect that involves comparing two groups on one outcome measure where experimental group-receive the treatment and control group- don't receive the treatment((Verma and Beard, 1981; IGNU2, 2005; and Kaufman and Kaufman, 2005). For example, an investigation of the effectiveness of two new textbooks using random assignment of teachers and students to three groups – two groups for each of the new textbooks, and one group as a 'control' group to use the existing textbook. Causal studies are designed to determine whether one or more variables cause or effect one or more outcome variables (Trochim, 2005).

f. ***Explanatory or Causal research:*** explains the causes of social phenomena. Its aim is to establish a relationship between variables and mainly concerned with causes or the "why "factor, about a phenomena (IGNU2, 2005). For example, a study of factors related to student 'drop out' from secondary school using data obtained from school records over the past decade.

g. ***Ex post facto research***: is that the researcher has no control over the variable; he can only report what has happened by searching back in time (Kothari, 2003).

h. ***Historical research*****:** generates critical descriptions, analysis and sometimes attempted explanations, of conditions, situations, and events that have occurred in the past. It is the systematic and objective location, evaluation, synthesis, and conclusions about past events by utilizing historical sources like documents, remains, and etc for the purpose of gaining a better understanding of the present (Cohen, etal, 2005; Kothari, 2003; and Verma and Beard, 1981). For example, a study that documents the evaluation of teacher training programs since the turn of the century, with the aim of explaining the historical origins of the content and processes of current programs.

i. ***Longitudinal research***: Involves the study of a problem or the same body of phenomena over a period of several time by directly collecting on the same individual at different points in time or in the course of their development (Verma and Beard, 1981; Kothari, 2003; and IGNU, 2005).A longitudinal study is one that takes place over time (Trochim, 2005).Examples, prevalence of AIDs among males and females in Ethiopia.

j. ***Naturalistic & Ethnographic research*:** humans actively construct their own meaning, knower and known are interactive, studies must be in their natural setting, and other**s (**Cohen, etal, 2000).For example, a detailed account of the daily tasks and interactions encountered by a school principal using observations gathered by a researcher who is placed in the position of 'Principal's Assistant' in order to become fully involved in the daily life of the school.

k. Cross-sectional or one-time studies: the research is confined to a single time – period (Kothari, 2003).A cross-sectional study is one that takes place at a single point in time (Trochim, 2005).

2.2 Educational Research Paradigms

An increased interest in and use of qualitative research, the emergence of mixed methods approaches, and continuing use of the traditional forms of quantitative designs have a vital place in the educational research processes. More specifically, research is based on research paradigms. In the subsequent sections, attempts were made to define the concept of paradigm, quantitative, qualitative, and mixed methods research paradigms.

All researches are based on assumptions about how the world is perceived and how can best come to understand it (Abiy, et al., 2009) where research paradigm is a way of looking at the world composed of philosophical assumptions in each paradigm (quantitative, qualitative, and mixed methods) guide and direct human's thinking and actions (Mertnes, 2005), and Good researchers are aware of their theoretical base and use it to help collect and analyse data Bogdan and Biklen (1992).

2.2.1 Quantitative Research Paradigm

Quantitative research is the methodological principle of positivism that involves the process of collecting, analyzing, interpretation, and writing the results of the study based on the measurement of quantity or amount that holds the goal of knowledge is simply to describe the phenomena that we experience (Abiy, et al., 2009).In short, according to Trochim (2005),quantitative research approach follows deductive or top-down reasoning that works from more general to the specific one: Theory →hypothesis →observation→confirmation, variables were clearly defined, casual explanations and predictions were made. Its main purpose if generalization.

2.2.2 Qualitative Research Paradigm: Due to inherent limitations of scientific method of inquiry, need for an alternative source of knowledge called qualitative research was emerged and get acceptance and popularity in educational research (Abiy, et al., 2009). Thus, the underlying

philosophical assumptions of qualitative research paradigm revealed that it is a way of looking at research that honors an inductive style(observation →pattern →tentative hypothesis (that one will explore)→theory), focused participants view, and undertook holistic analysis (Creswell, 2007 as cited in Creswell, 2009; Holliday, 2002; and Trochim,2005.Qualitative research involves fieldwork (Bogdan and Biklen ,1992); Emergent in design and Holistic account-involves reporting multiple perspectives, identifying many factors involved in a situation, and generally sketching the larger picture that emerges (Creswell, 2009).

2.2.3 Mixed Methods Research Paradigm

According to Trochim (2005), mixed method research is any research that uses multiple research methods to take of the unique advantages that each method offers. According to Creswell (2009), the time-intensive nature of analyzing both text and numeric data and incorporate elements of both qualitative and quantitative approaches/combines or associates both qualitative and quantitative forms characteristics of this paradigm.

2.3 Basic Elements of Educational Research Process

This sub-section considered the basic elements of the educational research processes to be followed in each paradigm such as quantitative, qualitative, and mixed method research methodologies.

2.3.1 Quantitative Research Processes and its basic elements

Starts from building a model: before entering the field to be studied, and while still sitting at his or her desk, the researcher constructs a model of the assumed conditions and relations. The researcher's starting point is the theoretical point / theoretical knowledge taken from the literature or earlier empirical findings. From this, hypotheses are derived which are operationalized and tested against empirical conditions.

This general linear model is used to undertake quantitative research (Flick, 2002; Wellington, 1996; John Dewey, 1938 as cited in Best and Kahn, 1989; Ary et al., 1985; Cohen, et al., 2005; Punch, 2000; Santrock, 2004; Trochim, 2005; Abiy et al., 2009; IGNU2, 2005; and UNESCO, 2005). Kothari's (2003) identification of the basic elements of research processes (the amalgam of the others writers) includes defining research problem, reviewing the literature, identifying the universe and unit of study, formulating hypothesis and identifying variables, selection of research techniques

and methods, standardization of research, pilot study/use of statistical and other methods, collecting data, analyzing data, interpretation and report writing were taken(Appendix 7).

2.3.2 Qualitative Research Processes of inquiry

Demonstrate a different approach/ inductive / and different philosophical assumptions (Flick, 2002; Wellington,1996; Abiy,et al.,2009; Miles & Huberman,1994; Flick, 2002; and Abiy,et al.,2009).Miles and Huberman's (1994) qualitative basic elements research processes includes building a conceptual frame work, formulating research question, defining the case (bounding the territory), sampling (bounding the collection of data), instrumentation, design issues, analysis (within –case and cross- case), drawing and verifying conclusions, and producing reports. But Holliday's (2002) qualitative basic elements research process includes deciding the subject of interesting, exploring the subject, letting focus and themes emerge; and devise research instruments during process (e.g. observation or interview).

2.3.3 Mixed Methods Research Processes

Timing-of qualitative and quantitative data collection whether it will be in phases (sequentially) or gathered at the same time (concurrently),weighting- the weight or priority given to quantitative or qualitative research in a particular study, mixing- either the qualitative and quantitative data are actually merged on one end of the continuum, kept separate on the other end of the continuum, or combined in some way between these two extremes, and theorizing perspectives shape the procedures of a mixed methods study (Creswell,2009).

2.4 Status of education research as viewed from level of involvement

This section comprised the concept of higher education, the need & status of higher education system at a global scale, the need and the status of educational research in Ethiopia and higher education institutions.

2.4.1 Higher education: concept, need, and status in global scale

Conceptually, higher education refers to the advanced level of education beyond a full course of secondary education (IUCEA, 2007).Whereas, higher education is education in the arts and sciences

offered to undergraduate and graduate students who attend degree programs through any of the delivery modes (FDRE P. #650/2009).

With regards to the need of higher education system at a global scale, the need for skilled manpower, research or knowledge based educational decision- making, poverty reduction and others necessitated the practice of expanding and changes in higher education at the global level (Annaki , 2002 and Mekasha, 2005).The status of African HEIs was described as relatively new and weakly established institutions; enrolment ratios are extremely low (2.4 per cent) in comparison with the rest of the world, early curriculum links to religious studies and administrative need prompted development of the humanities and the social sciences, applied technology, business related skills and research capacities (World Bank,1997).

2.4.2 Educational Research: need and status in Ethiopian HEIs

Concerning the need for educational research in higher education of Ethiopia, the New Education and Training Policy of Ethiopia (MoE, 1994) try to redress the overall production of skilled manpower in quantity and quality, economic, social and political development of the country and could be a reality with research based interventions by higher educations. That is, according to proclamation number 650/2009 which declared that every institution shall undertake and encourage relevant study, research and community services in national and local priority areas and disseminates the findings.

Also, concerning the forthcoming of the status of research in higher education of Ethiopia, MOE (2010/11-2014/15) identified the major activities to be achieved at the end of the year 2014/15: elaborating framework for national research priorities, establishing a national system to evaluate the relevance and quality of research conducted by HEIs, and supporting universities in-establishing research policies, innovation funds and consultancy center. This shows that educational research has a due emphasis of the government to be carried out by HEIs. In spite of the various progresses exist for the need to conduct educational research by higher educations in Ethiopia, the status of educational research practices in higher educations of Ethiopia was found not as it ought to be. That is, low and/or not satisfactory due to the following factors.

2.5 Determinants/factors that hinders/ HEI instructors in their ERPs:

In spite of many progresses made in educational research practices in Ethiopian higher education institutions, there were multiple casual factors that hindered the active involvement of higher education instructors in their duties of practicing in educational research that could be classified as human, material, economic, institutional, and motivational ones.

2.5.1 Human factors

The human factors determinant to the involvement of instructors to undertake educational research includes gender, educational Level, years of teaching experience, field of specialization, perception towards educational research, interest to conduct educational research, and problem of research culture (personnel capacity or Knowledge, attitude, and skill) that were presented respectively as follows:

Gender: According to Yousra and Bashar (2009), there are statistical differences between sample averages due to gender. That is, at α=0.05 the impact of gender is in favor of male that is attributed to the mean of male (3.74) is greater than that of female (3.42) due to more number of male respondents (132/52%) than that of female (122/48%). It is also attributed to instructors complete belief of education research importance and its value in enhancing the work more than females. Male instructors also have enough time to review education research, while female instructors are not interested in education researchers after school, because they care of their children and work only inside the school, while male instructors work inside and outside the school to advance education work.

Educational Level: Asrat (2007) selected instructors' level of qualification to investigate its effect on their participation in educational research in Haramaya University and found no relationship exist between the level of qualification and the level of involvement in research activity in Haramaya University. In the contrary, Berihanu's(2009) study in Tigray Region Teacher's College of Education showed that there exist moderate and statistically significant correlation between instructors' qualification/educational level and their involvement in educational research practices(r=0.47).

Years of teaching experience: The general assumption related to instructors' years of teaching experience is that ,when a teacher gets more experience, he/she will be effective in his/her work

including research activities. In spite of this, the influence of instructors' teaching experience on their participation in educational research was found controversial. For example, in the case of Bahir Dar University studied by Amera (2005) showed that instructors with longer years of teaching experience are less engaged in educational research practice than less experienced instructors. But the contribution of teaching experience has a negative impact on instructors to participate in educational research. Amera (2005) also showed that there exist a negative correlation (r=-0.41) between instructors' teaching experience and educational research practices. The major findings of the researcher for the inverse relationship between teacher's years of teaching experience and educational research practices are engagement in family affairs that needs more of their time, involvement in social responsibilities in and outside the institutions, and forgetting important skills of educational research processes due to their long time gap from training. In the case of the College of Education in Tigray region, study conducted by Birhanu (2009) showed a contrary result of strong positive correlation (r=0.76) and statistically significant relationship between instructors' years of experience and their involvement in educational research activities. Asrtat's (2007) qualitative research showed us that ,there exist, more number of junior academic staff and some senior academic staff transferred from the college of agriculture to the education faculty who are "not advising young faculty members, thereby, contributed to the low involvement of instructors in educational research in the University.

Field of specialization: The case of Bahir Dar University was studied by Amera (2005) and found that: "instructors specialized in education were found to be in a better position to do educational research, and language, social science, and natural science stream instructors were almost similar in their involvement in educational research" (p.1). To enhance, their involvement in educational research practices, Amera (2005) recommended the need for workshops, seminars and training to those instructors of Bahir Dar University from the language, social science, and natural science streams.

Perception towards educational research: Higher education instructors' perception to the educational research has a determinant (positive/negative) role in their involvement in the educational research practices. That is, the way higher education instructors' perceive/look/feel and tests educational research plays either positively or negatively determinant role in their involvement in educational research. For examples, the case of Bahir Dar University was studied by Amera (2005) with the total of 103 (M=101 and F=2) respondents sampled from MA/Msc and Ph.D

qualified researchers in the University and found that instructors with positive perception to educational research have good participation in educational research practices with positive correlation between teacher's perception and educational research practices(r=0.64).

Asrat (2007) also studied the case of instructors' perception towards educational research in Haramaya University and found that "research is not the main and compulsory task rather teaching" to instructors of Haramaya University during the period of (1996/97-2005/06).For instance, according to (I_4), whom Asrat (2007) interviewed showed that instructors were hired by the University mainly for "teaching purpose" (p.39), considering research not as their obligation. Other instructors of Haramaya University have positive perception towards conducting research. For instance, (I_7) from English department in Haramaya University whom Asrtat interviewed on 9th of April 2007 showed that "actually, I get involved in educational research for academic promotion and status and for the sake of professional development (cited in Asrat, 2007, p.35).Similar study conducted in University of Gonder by Melese (2010) showed that instructors' perception toward research in Higher Education Institutions can be judged as "good" at University of Gonder. But the quantity of the research projects conducted and published in the university was judged as "less".

Interest to conduct educational research: Attitude and interest in research are the major conditions to effectively conduct educational research (Abreham, 2004 cited in Melese, 2010). The case of Bahir Dar University was studied by Amera (2005).He investigated and found, there exist, positive correlation (r=0.65) between teacher's interest in educational research and educational research practices. As a result, his finding showed that instructors with positive interest in educational research have good participation in educational research practices in Bahir Dar University Education Facility. On the contrary, in the case of Haramaya University, based on the primary data collected through interview and FGD, Asrat (2007) found that most of instructors in the Education Faculty lacked real interest in educational research; as a result, they are not engaged in it.

Problem of research culture (personnel capacity or Knowledge, attitude, and skill): Lack of research culture (personnel capacity or knowledge, attitude, and skill) to conduct educational research was also identified as a major impediment hindering factor to HEI instructors. For examples. the study conducted by Kothari (2003) states that problem of conceptualization and problems relating to the process of data collection and related things, Amare (2000) who states that

inappropriate use of statistics and uncritical adoptions of the opinions in the review of literature section, lack of knowledge in education research, to Derebssa (2004) some AAU faculty instructors lack research capacity in the areas of research methodology, quantitative data analysis, and report writing that has resulted to the "deterioration of the quality of both teaching and research work" in the university, a failure to the double roles of the university, and Asrat (2007) also revealed same result in his study that instructors of Haramaya University who lacks capacity/skill in educational research methodology and methods were suffice to mention for this particular study.

2.5.2 Material factors/Lack of research infrastructure and equipment

Especially related to material facilities were found as another determinant hindering factors in undertaking educational research. For instances, Derebssa (2004) listed 11 facilities [computers, printers, photocopy services, duplicating services, stationery, internet connections, conducive working offices, necessary office equipments, relevant reading materials, telephone services, and fax services] and collected data on the availability of these basic infrastructures and equipments to the educational researchers in the AAU and found that it is only internet connection which is sufficiently available to the university researchers, whereas, computers, printers, stationery, conducive working offices, necessary office equipments, and relevant reading materials are not sufficiently available to AAU university instructors to do their research by the university. Basic equipments like photocopy service, duplicating services, telephone services, and fax services were not available to AAU researchers that hamper their participation to conduct their research.

According to Asrat (2007) the status of educational research facilities in education faculty characterized by problems of relevant literature and educational documents, and office facilities in the past ten years hinders instructors' involvement in educational research activities. Likewise, Kiflom (2009) concluded that there exist shortage of the majority of essential research inputs (computers, printers, photocopy services, duplicating services, stationery materials, internet access, fax services, telephone services, conducive working offices, vehicle, and recent reference materials) in Mekelle University.

2.5.3 Economic factors/Lack of research budget/Fund: As identified by various scholars, lack of earmarked research budget and/or research fund, has an impact on the role of the higher education instructors to discharge one of their basic roles-undertaking educational researches. As an illustration, Derebssa's (2004) study in the AAU shows relatively scarce (1.2% -Birr 1,554,900 in 2003/2004 for different facilities and colleges of the university. Asrat (2007) in Haramaya

University faculty of education mentions that lack of funding affected instructors' involvement in research negatively in the past year in Education Faculty of Haramaya University: ETB 100,000.00 /ETB 20,000.00 per project/ in 2006/2007 & shared his concern about its adequacy and sustainability. Similar study conducted in College of Teacher Education of Tigray region also showed that "scarcity of budget" (Birhanu, 2009).The study conducted by Kiflom (2009) showed that there exist various sources of research budget for research activities in Mekelle University: internal research funding, government budget (ETB 450,000.00/year/project),national sources, and international sources. In the case of Gonder University, this study finding was done by Melese (2010) who confirmed that significant shortage of research fund allocation was observed as well as even the accessibility of that minimal fund was not released fast and on time to the staff researchers.

2.5.4 Institutional factors:

Work load/shortage of time: Heavy teaching load/shortage of time was also identified as a major deterring factor to higher education instructors' involvement in educational research practices by various scholars. According to Derebssa (2004), AAU current policy has provided each department to allocate one fourth(25%) of the total time for research to their teaching staff that is most recommended time in other countries, however, found that ,instructors lack time to do research. Yet more, to Asrat (2007) who reviewed Haramaya University official document and described as instructors of Haramaya University are expected to spend 25% of their time for educational research undertakings. However, due to the expansion program of the university, the study made by him showed that instructors were overloaded with some administration activities of the university on top of their teaching more than three courses in a single semester. In the case of Mekelle University, even though the status of educational research undertaking was found low, the influence of time was found insignificant but delay in the funds and administrative delay to get necessary materials support are relatively considered as serious factor. That is,

> *College members of the University are allowed six months paid research leave every four years and one calendar year of paid sabbatical leaves every seven years. The instructors of this University have these favorable conditions to undertake research. However, the finding indicated that majority of the instructors are not engaged in research undertakings. It has been found that the research involvement of Mekelle instructors is low (Kiflom, 2009, p.57).*

Time is precious to higher education instructors in AAU (Derebssa, 2004) and Haramaya University (Asrat, 2007) to get involved in educational research work. Contrary to these university instructors

time is a not taken as a serious factor that hinders the participation of higher education instructors in the case of Mekelle University (Kiflom, 2009) and Gonder University (Melese, 2010). According to Mesele(2010), in the case of Gonder University instructors, research work time may not be the serious determinant factor "as compared to the other determinant factor such as lack of research fund and lack of in-service training" (p.82).

Limited dissemination and utilization of educational research findings: Among many vital elements to support educational research climate, the existence of channels for disseminating educational research findings is the one (UNESCO, 1998). The dissemination and utilization of research findings are an important part of expanding the positive impact of research (Derebssa, 2004). He listed various reputable journals sponsored and published under AAU. Asrat (2007) examined the case of Haramaya University and concluded that almost all informants expressed the absence of any means of publication and dissemination for educational research results in Haramaya University except that of exclusive dissemination mechanisms for agricultural research that includes East African Journal Science(EAJS). Another study conducted by Birhanu (2009) showed that instructors lack opportunity to disseminate their research works and results. Melese (2010) in the case of University of Gonder quoted the view of one of his interview participant, "there is no any mechanism of dissemination the research findings even the published ones. There is only one Journal, Ethiopian Journal of Health and Biomedical Sciences published by the college. Other faculties don't have their own journal to disseminate their research work"(p.61).

Limited publication of educational research findings: Publication issue is also another hindering factor. That is, no publication journal in Gonder University for other faculties except the one in the college of Medical and Health Science. Contrary to Derebssa (2004); Asrat (2007); Birihanu (2009); and Melese (2010), Kiflom (2009) has investigated the extent of the influence of the publication and dissemination mechanism on the involvement of instructors in Mekelle University and found that 82.6% of the respondents had responded " yes" to the availability of publications in Mekelle University which he triangulated with the interview as there are several national and international journals available for researchers to publish their research results. So, lack of publication can't be.

2.5.5 Motivational factors:

Low job satisfaction: According to Singh and Pandey (2009) job satisfaction is a set of favorable or unfavorable feeling with which the employees view their work. With this, Luthans (1998) posited

that there are three important dimensions to job satisfaction: 1) Job satisfaction is an emotional response to a job situation; 2) Job satisfaction is often determined by how well outcome meet or exceed expectations; and 3) Job satisfaction represents several related attitudes which are most important characteristics of a job about which people have effective response. These to Luthans are: the work itself, pay, promotion opportunities, supervision and coworkers. The major effects of low job satisfaction are high turnover of employees, high absenteeism, tardiness (type of short period absenteeism ranging from a few minute to several hours), and low employee performance.

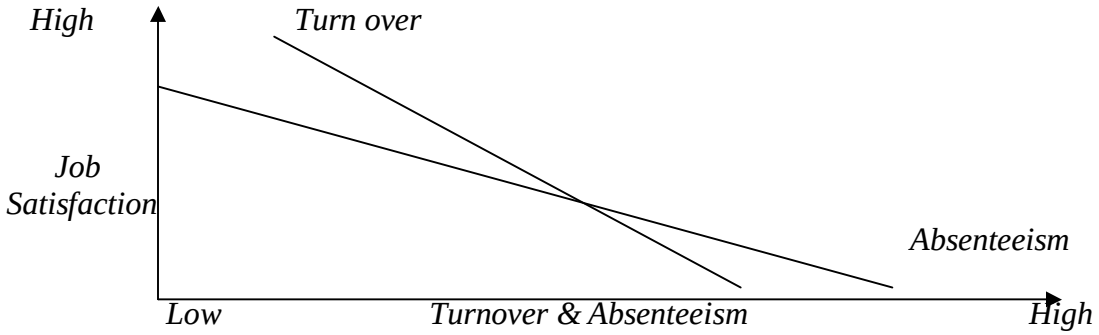

Fig 1. Relationship of job satisfaction, Turnover and Absenteeism (Singh and Pandey, 2009, pp.214-215).

Poor organizational commitment: Beckeri,Randal, and Riegel (1995) defined the concept organizational commitment in three dimensions: a strong desire to remain a member of a particular organization, a willingness to exert high levels of efforts on behalf of the organization, and a defined belief in and acceptability of the values and goals of the organization. To Northcraft and Neale (1996), commitment is an attitude reflecting an employee's loyalty to the organization, and an ongoing process through which organization members express their concern for the organization and its continued success and well being. From this, poor organizational commitment in general and lack of commitment in particular have adverse effects on the success of the organization.

Lack of work motivation: lack of motivational strategies such as lack of incentives (Seyoum, 1998;Kiflom, 2009;Waktole, 2002);lack of opportunities to participate in seminars and workshops or in-service training on research (Seyoum,1998 ; Waktole, 2002; Kiflom, 2009;and Melese, 2010) ; lack of recognition or support from stakeholders or top management (Waktole, 2002 and Kiflom, 2009);lack of financial support/research funding (Amera, 2004 and Waktole, 2002);unattractive or low scale salary(Derebssa, 2004 and Waktole, 2002) have an impact on the role of higher education instructors in conducting research, too. The question here is what strategies can be used to motivate higher education instructors to conduct educational research: the rationale for the subsequent section.

2.6 Determinants /Factors that motivates/ human behaviors

Under this section the concept of motivation, the rationale for employees' motivation, importance of motivation, nature or characteristics of motivation, and theories of motivation were reviewed and presented.

2.6.1 The concept of motivation

Motivation is defined as an act of stimulating someone or oneself to get the desired course of action in an organization (Anbuvelan, 2008). Similarly, motivation means a process of stimulating people to action to accomplish desired goals (Singh and Pandey, 2009). Motivation represents an unsatisfied need which creates a state of tension or disequilibrium, causing the individual to move in a goal directed pattern towards restoring a state of equilibrium by satisfying the need (Rao, 2010).

2.6.2 The rationale for employees' motivation

Many factors related to human, material, economic and institutional factors have been affecting the active role of higher education instructors in Ethiopia to discharge their responsibility of conducting educational research in their respective universities. Lack of work motivation (Seyoum, 1998; Kiflom, 2009; Waktole, 2002; Melese, 2010; Amera, 2004 ; and Derebssa, 2004) was among these determinant hindering factors that have to be also given special attention by higher education managers/officials. The main reason is that statement of clear mission & vision statements, formulation of research policy, working against these deterring factors, and others alone have no guarantee that higher education institution could effectively engage them in the work of educational research, unless otherwise, paramount consideration is given to the issue of instructors motivation. As a result, managers/higher education's officials have to motivate their instructors, thereby, achieve the set mission of the university: responsibility of conducting educational research that Anbuvelan(2008) states as a worker is basically a human being. Every manager has to understand that a worker cannot be considered a mechanical system. A worker has to be inspired and actuated to accomplish the objectives of an organization. With motivation, a person can be made to work willing with zeal and enthusiasm. Besides, Singh and Pandey (2009) states that motivated employees put higher performance as compared to other employees. Similarly, Rao (2010) mentioned that motivated workers exert all their energies towards the job. This would in turn result in increased in employee efficiency and productivity.

2.6.3 Importance of Motivation

Motivated people are the most satisfied people. A properly motivated team will not have unnecessary friction with the management and with its fellow workers (Anbuvelan, 2008). Motivation enhances employees stay (low turnover) in the organization and their low absenteeism (Singh and Pandey, 2009). Motivated employees use their innovative and creative skills, talents, etc, and offer creative ideas to the management (Rao, 2010).

2.6.4 Nature or characteristics of motivation:

The nature or characteristics of motivation includes motivation is a psychological concept (Anbuvelan,2008 ;Singh and Pandey,2009 ; and Rao,2010),motivation is total, not piecemeal (Anbuvelan,2008 ;Singh and Pandey,2009 ; and Rao,2010), motivation is determined by human needs (Anbuvelan,2008 and Rao,2010),motivation may be financial or non-financial (Anbuvelan,2008); motivation is a constant process (Anbuvelan,2008 ;Singh and Pandey,2009 ; and Rao,2010), motivation is the product of valance and expectancy(Singh and Pandey,2009 ; and Rao,2010),the entire individual is motivated (Rao, 2010), frustrated individual fails to be motivated (Rao, 2010) ,goals lead to motivation (Rao, 2010), and the self-concept as a unifying force (Rao, 2010).

2.6.5 Theories of Motivation:

This section includes content, process, and reinforcement theories of motivation that are presented respectively in the subsequent pages.

2.6.5.1 Content theories of motivation

According to Rao (2010) all the content theories of motivation deals with the needs for the people and how they prioritize them. Content theories of motivation identify what motivates people and assume that satisfaction leads to improved performance. All the content theories assume that satisfaction leads to improved performance. The underlined assumptions and techniques of each theory were presented.

Table 1: *Summary content theories of motivation, assumptions and motivational strategies*

Traditional content theories

Specific sound theories	**corresponding assumptions**	**motivation strategies/techniques**
"Be strong" theory or " fear and punishment" theory	Characterized by the thinking of aggressive and authoritarian managers who developed a strategy of forcing people to work	By threatening to punish or dismiss them or to cut their rewards if they did not work well.
Efforts and rewards theory (F.W.Taylor)	managers should establish the standards or performance, monitor the behavior of employees and decide about the:	Rewards based on the degree of performance
		penalties based on the degree of performance
Monastic theory/ "Effort-Reward-Effort Theory"	Here management assumes that people work for money only. This theory is a single cause of behavior(directed only towards earning money).	Single strategy: Money
Carrot and stick theory:	Suggests a judicious combination of both rewards and penalties for motivation. That is,	the carrot refers to incentives like money and other inducements etc
		the stick refers to penalties, fear of dismissal, demotion, etc
Be good or paternalistic theory	to gain loyalty and increase efficiency and productivity, providing:	High wages
		Job security
		Good facilities for education
		Good facilities for health
		Good facilities for recreation
		Good work environments

Source: Compiled from (Myers, 2007; Bartol and Martin, 1994; and Rao, 2010)

Modern Theories of Motivation

Mc Gregor's (1963) theory X and theory Y*:* McGregor's Theory X(negative of human beings) that assumes average man is passive even resistant to the organizational needs, by nature lazy and works little, lacks ambitions and dislike responsibility, and inherently self- centered. So, managers should motivate them through negative motivational techniques such as coercion, tight control, threatened with punishment, persuasion, and close supervision to get them to work.

McGregor's Theory Y (Positive of human beings) that assumes people view work as rest or play, exercise self –direction and self- control, can learn to accept responsibility, are not inherently lazy, have potential that can be applied to work. So, managers should motivate them through job enrichment (positive) motivational_techniques such as creating opportunities, releasing/developing employee potential, providing guidance, removing obstacles, participatory management, decentralization of authority, emphasizing self- control and self- discipline, rely on performance than procedure, and giving employees freedom and autonomy/empowerment of employees (Mc Gregor, 1963; Anbuvelan, 2008; and Rao, 2010).

William Ouchi's Theory Z: characterized by (humanistic philosophy , teamwork and consensus decisions, develop close co-operative, trusting relationship among workers, managers and other groups with teams are created within a stable work environment, and very low rate of absenteeism and number of grievances) and suggested the following motivational factors such as large –term employment, emphasis on training, seniority- based rewards, emphasis on self- discipline, holistic concern for employers and their families, trust relationship among workers, and stable work environment(Anbuvelan, 2008 and Rao, 2010).

Maslow's/theory/ Hierarchy of Needs: when fulfilled can energize them to do work such hierarchical needs are 1) *physiological needs(*shelter, good salaries/basic pay, allowances, incentives, fringe benefits, and working conditions); 2) *safety/security needs(* job security, protection from loss of income, illness, and economic disaster, free from threats, life insurance benefits, severance pay benefits, conformity benefits, membership in unions benefits, safer working conditions, safety regulations, and group insurance); 3) *social needs(* workers' association, formal workgroup, informal workgroup, love/affection/attention, social acceptance, good coworkers, and approval from peers); 4) *esteem needs(* self-respect, self-esteem ,self-confidence, status symbol, award, promotion, power, respect from others, autonomy/independence, prestige/one's reputation, good organizational climate, opportunity for development, responsibility, and recognition of one's work); and 5) *self-actualization needs/intrinsic desires(*creative and achieving self fulfillment) (Hanson, 1985; Bartol & Martin, 1994; Anbuvelan, 2008; Singh and Pandey, 2009 ; and Rao, 2010).

Frederick Herzberg's Two Factors Theory (motivator-hygiene theory): where his first category called Herzberg's six motivational/intrinsic factors of job conditions as described by Silver (1983); Anbuvelan (2008); Singh and Pandey (2009); and Rao (2010) in order of their significance includes 1) achievement, 2) recognition, 3) work itself, 4) responsibility, 5) advancement, and 6) opportunity for growth that an increase in these factors will satisfy the employees, thereby, used as motivation for higher output and any decrease in these factors will not affect their level of satisfaction. Furthermore, Singh and Pandey (2009) and Rao (2010) have divided Herzberg's first category as positive motivators /pull mechanism attempt to influence the employees' behavior through possibility of reward is further subdivided into monetary and non-monetary motivators where the monetary motivators/financial/pecuniary incentives are flow of money from the organization to its staff such as wages and salaries, pay increments, profit sharing, leave with pay, medical reimbursement, company paid insurance, bonus, housing facilities and retirement benefits.

However, this is not entirely true due to the fact that monetary benefits have only limited utility in increasing the motivation of employees: the role of money in motivating employee is generally decreased after the basic needs have been met. Thus, the management has to make use of non-monetary financial incentives also to motivate the employee: opportunity for growth, status, recognition of work/praise, knowledge of result, job security, fair promotion, and others. Singh and Pandey (2009) and Rao (2010) also defined negative motivation/motivators as administrating punishment if employees do not perform well that are based on fear instead of reward and such punitive measures may motivate employees to do their work effectively and efficiently where such measures includes punishment, suspension, demotion, and wage cut.

The second category of Herzberg's theory is hygiene factor in their order of significances includes company/organizational policy and administration, supervision (technical), working condition, salary, interpersonal relations (peer), effects on personal life, interpersonal relations (subordinate), status, and job security (Silver,1983; Anbuvelan,2008; Singh and Pandey, 2009,and Rao, 2010)where their presence of at a satisfactory level prevents job dissatisfaction, but they do not provide motivation to the workers. Even though they are not motivators, they will prevent the individual from becoming dissatisfied. That is, as stated by Singh and Pandey (2009), Herzberg's hygiene factors prevent losses in workers performances due to work restrictions, necessarily to maintain a reasonable level of satisfaction in employees, any increase beyond this level will not provide any satisfaction to the employees, and however, any decrease will be a dissatisfier.

Clayton Alderfer's ERG Theory: is the fifth category of modern content theory. As stated by Bartol and Martol (1994) and Rao (2010), Alderfer (1969) reduced Maslow's five levels hierarchy of needs to three levels and that there is distinction between lower order needs and higher order needs in which some additional examples are taken from Bartol and Martin (1994) and Rao (2010): *Existence Needs:* contains both physiological/survival, material and safety needs, which are necessary to maintain physical well- being: Examples- food, water, pay, fringe benefits, and physical working conditions, *Relatedness Needs:* deals with a desire for meaningful and satisfying social/interpersonal relationship needs : Examples- families, friendship groups, workgroups, and professional groups, and *Growth Needs:* highest level of needs that is concerned with the individual's intrinsic desire for personal development and consists of self esteem and self-actualization.

McClelland's Theory of Needs: developed by McClelland –a Harvard psychologist and his associates which focus on three needs such as need for achievement- refers to the drive to excel, to achieve in relation to set standards and to strive to succeed, need for power- is the desire to have impact, to be influential and control others, and need for affiliation- refers to the desire for friendly and close interpersonal relationship (Rao, 2010).

Contingency approach: that is applicable when all other theories fail to motivate the employees. A manager can take action according to the situation. That is, decisions are taken as and when a situation arises because various theories suggest that there is no universal device applicable to everyone and what motivate people is situational factors (Singh and Pandey, 2009).

2.6.5.2 Process theories of motivation (expectancy theory)

Deals with cognitive antecedents that go into motivation and effort (Rao, 2010) that comprises motivation theories like Vroom's Expectancy theory, Porter and Lawler Model Expectancy Theory, Adams Equity Theory of Motivation, R.de Charms's Cognitive Evaluation Theory, and Edwin Locke's Goal setting Theory that are presented respectively.

Table 2: *Summary of process theories of motivation, assumptions, and strategies of motivation*

Specific sound theories	corresponding assumptions	Managers employment motivation strategies/techniques
Vroom's Expectancy theory	desired goal and the strength of employees' expectation of achieving the goal can motivate them	*Valence:* is the strength of an individual's preference for a particular outcome motivates employees. It can be taken as an equivalent of value, incentive, attitude and expected utility
		Instrumentality: is the extent to which a person will feel that performance is instrumental in getting him increased salaries or promotion
		Expectancy: refers to the extent to which efforts will lead to the first-level outcome
Porter and Lawler Model Expectancy Theory	performance is a function of three important factors:	If an employee wants to perform, he must be *motivated*
		Motivation alone doesn't ensure performance and hence a person must have the necessary *abilities and skills*
		An employee must have an accurate *knowledge* of the requirements of the job
Adams Equity Theory of Motivation	argues that a major input into job performance and satisfaction is the degree of equity (or inequity) that people perceive in their work situation	In equity occurs when a person perceives that the ratio of his/her outcomes to inputs and the ratio of other's relevant outcome to inputs are unequal
		Equity occurs when the ratio of person's outcome to his/her inputs is equal to the ratio of other's outcomes to other's inputs
Charms's Cognitive Evaluation Theory	Argues that the use of extrinsic rewards result in deviation of the outcome of intrinsic rewards. In simple terms, it can be said that if an individual is provided with the extrinsic rewards to perform an interesting works, it would result in the intrinsic interest in the task itself to decline	
Locke's Goal setting Theory	It is expected that the employee is motivated to achieve higher results if he/she is allowed to participate in goal setting. Therefore, the organization has to create a favorable belief in the individual minds that they are capable of achieving higher performance.	

Source: Compiled from (Myers, 2007; Bartol and Martin, 1994; and Rao, 2010**)**

2.6.5.3. Reinforcement Theory/Operant conditioning/*"S-R" psychology*

Under this theory two principles are used together: Principles of learning and principles of conditioning to the process of influencing the motivation and job performance of people. According to Skinner, behavior or motivation is a function of its consequences or rewards: the actions that result in positive consequence tend to be repeated more often and the actions that result in negative consequence tend to be repeated less often (Rao, 2010). That is, if people are rewarded for their performances, they will repeat the other performance when a new task is given to them. There are four types of reinforcement. The different types of reinforcement are the results of either the application or withdrawal of either pleasant or unpleasant events. These are summarized in the table here under:

Table 3: *Summary table of reinforcement theory of motivation, assumptions, and strategies*

Specific sound theories		**corresponding assumptions**	**Managers employment motivation strategies/techniques**
1	Positive reinforcement or positive incentives	Implies giving a positive response when an individual shows positive and required behavior. That is, positive reinforcement stimulates occurrence of a behavior designed by the organization: providing a pleasant, rewarding consequence to encourage that behavior such as:	Praise
			Raise
			High salary
			Better benefit
			Admiration
			Recognition
			Status
			Time off
			Promotion
2	Negative reinforcement/negative incentives(Noxious stimuli)	Implies rewarding an employee by removing negative / undesirable consequences or unpleasant condition or aversive stimuli to work hard & finish on time	Strict supervision
			Strict control
			Harassment
			Threatening
			Fine/penalty
			Demotion
3	Punishment	Implies removing positive consequences so as to lower or discourage the probability of repeating undesirable behavior in future by applying undesirable consequence for showing undesirable like:	Suspension without pay
			Criticism
			Denying training opportunity
			withholding resources such as new equipment
4	Extinction:	implies lowering the probability of undesired behavior by	absence or withholding of reinforcements (e.g. no longer receives praise and admiration

Source: Compiled from (Myers, 2007; Bartol and Martin, 1994; and Rao, 2010**)**

2.7. Conceptual framework: Conceptual framework was defined as a set of broad ideas and principles taken from relevant fields of inquiry and used to structure a subsequent presentation (Abiy, et al., 2009). Hence, the conceptual framework of this study was presented as follows:

CONCEPTUAL FRAMEWORK OF THE STUDY

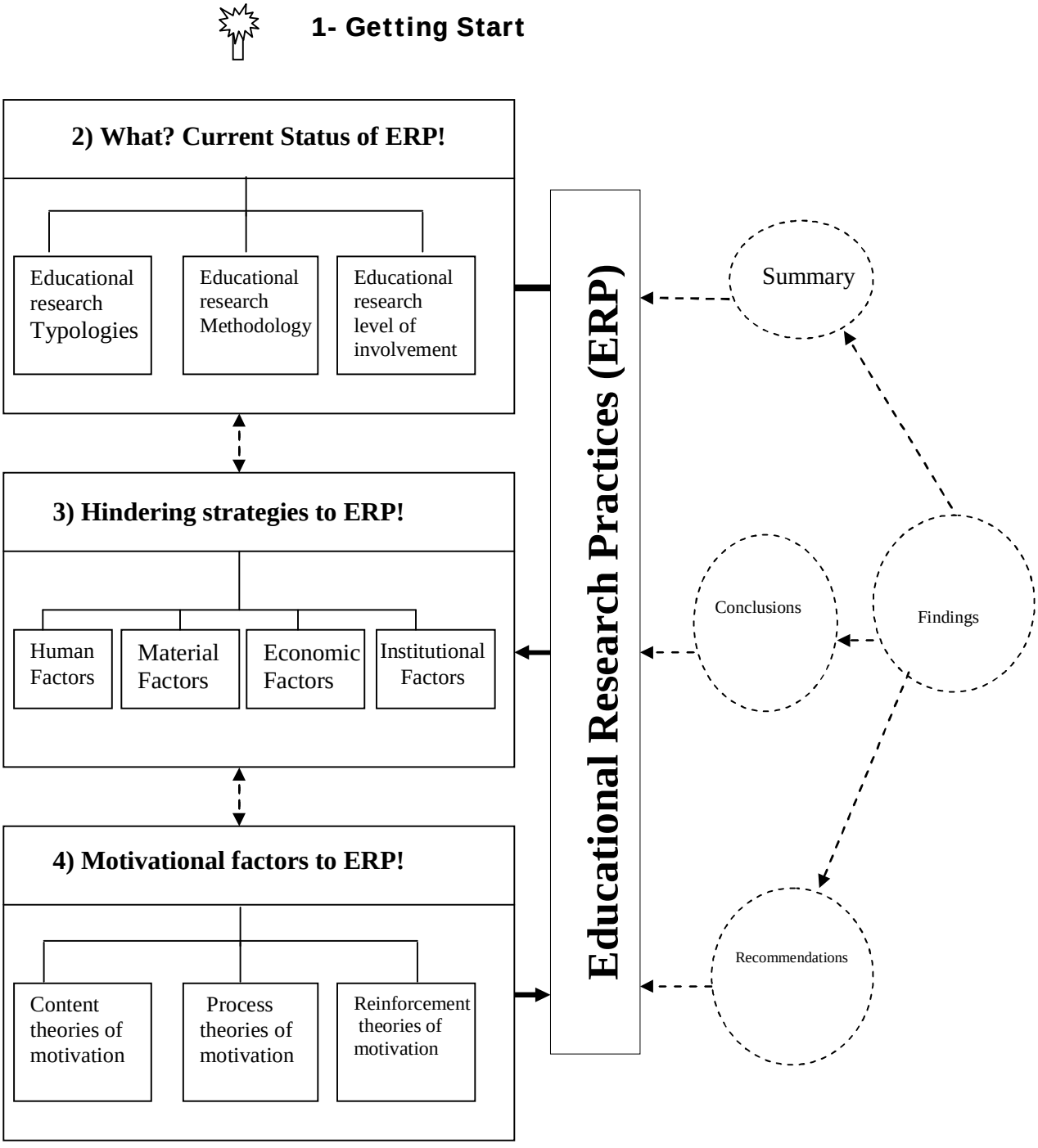

Fig 2. Conceptual Framework

Key:

1. ERP- Educational Research Practices
2. Getting start; the bell of IER for research proposal.
3. — (solid line) represent current status of ERP in HEI
4. ⟵ (Back arrow) represent hindering factors.
5. ⟶ (Forward arrow) represent motivation strategies
6. ⟷ (Broken arrows) represent inter-relationship among concepts.
7. ◌ (circle) represent the future of EPR /ways forward

CHAPTER THREE: METHODS OF THE STUDY

Under this chapter research setting, design, participants, instrumentation, procedures, and methods of data analysis of both quantitative and qualitative methodologies were respectively presented.

3.1 Research setting

Ambo University is found as the relevant setting for the researcher to conduct on the status and determinants of educational research practices in higher education due to the interest of the researcher and due to lack of previous study (ies) on the status and determinants of educational research practices in the University. Located at 138 KMs to the west of Addis Ababa on the way to Nekemte road, Ambo University is one of the higher learning institutions with significant contributions in the country's overall development effort by building the capacity of development agents through short, medium and long term trainings in various fields since its establishment in 1939. After passing through various developmental stages it has recently become independent with a status of a university organized into 8 colleges having 27 academic departments.

3.2 Design of the Study

Both quantitative and qualitative research designs were employed to investigate the current status of educational research practices, major determinant hindering factors and major determinant motivational strategies of AU instructors' educational research practices. The main justifications were with the quantitative research design, descriptive research method was employed to present, summarize, describe, and establish relationship among the study variables. However, using the qualitative research design case study was employed, thereby, collecting first hand information that was used to triangulate the data collected during the quantitative portion of the study sequentially.

3.3 Participants of the study (Population, sample size, & sampling techniques)

AU was purposively sampled for this study based on the interest of the researcher and absence of the previous study on the topic with the major emphasis to the CNCS, CSSH, and IEPS.

Table 4: *Population and samples of pilot and final studies by sex*

Colleges/ institutes	S/N	Departments	Population size			Sample sizes					
						Pilot study			Final study		
			M	F	T	M	F	T	M	F	T
CAVS		Vet & Laboratory Science	-	-	-	3	-	3	-	-	-
		Total	**-**	**-**	**-**	**3**	**-**	**3**	-	-	-
CNCS	1	Biology	26	2	28	6	1	7	-	-	-
	2	Chemistry	28	-	28	3	-	3	-	-	-
	3	Mathematics	27	1	28	2	-	2	11	1	12
	4	Physics	14	1	15	-	-	-	6	1	7
	5	Sport science	13	1	14	-	-	-	5	-	5
		Total	**108**	**5**	**113**	**14**	**1**	**15**	**22**	**2**	**24**
CSSH	6	Afan Oromo & Literature	7	1	8	-	-	-	5	-	5
	7	English Language & Literature	31	2	33	-	-	-	10	1	11
	8	Civics & Ethical Education	13	1	14	-	-	-	3	1	4
	9	Sociology & Social Work	6	-	6	-	-	-	2	1	3
		Total	**57**	**4**	**61**	**0**	**0**	**0**	**20**	**3**	**23**
IEPS	10	EDPM	7	-	7	-	-	-	6	-	6
	11	Adult Education	3	-	3	-	-	-	3	-	3
	12	Psychology	5	-	5	-	-	-	4	-	4
		Total	**15**	**-**	**15**	**0**	**0**	**0**	**13**	**-**	**13**
GT			**189**	**9**	**198**	**14**	**1**	**15**	**55**	**5**	**60**

Source: Ambo University Human Resource Process Owner Office Document (2012)

Of 6 colleges and 3 institutes of Ambo campus, 2 colleges such as CNCS with 6 departments and CSSH with 5 departments and 1 related institute called IEPS with 3 departments were purposively sampled. The second stage of sampling procedures called availability sampling technique was employed to include all departments of the selected colleges except statistics from CNCS and except law department from CSSH. Thus, the totals of 12 departments were sampled. Thirdly, the totals of 60 instructors were included in the sampling using systematic sampling technique. For the qualitative portion of the study using availability sampling 1 college dean, 2 department heads and 3 instructors were sampled for interview. Thus, the totals of 6 interviewees were involved.

3.4 Instrumentation/methods of data collection

The total of 30 researcher developed closed –ended and open- ended questionnaire (used to collect primary quantitative data) with 7 interview items (used to collect primary qualitative data) were used. The survey questions have 3 major parts: part 1, related to the status of educational research practices (Items # 1-19), part 2, related to the major hindering factors (Item # 20-21), and part 3, related to the major motivational strategies (Items #22-30)(Appendix 1). Document review like AU legislation (June 2011) and HR profile of the AU (2012) were employed for secondary data.

3.5 Procedures

After intensive review of the literature**,** closed- ended and open-ended questionnaires were prepared in English. Validation of the instruments from 8th to 12th of February 2012 by forwarding them to SPSS trainer, Ph.D candidate from Japan studying at IER, AAU instructors from EDPM and two from curriculum and instruction departments, HESC, AAU IER publication center, researcher's classmate working at MOE, senior higher education expert at MOE, and senior expert working for UNICEF was made. On 14th February 2012, the researcher, based on the experts judgment increased the number of items from 26 during the experts judgments to the current 30 items, revised ambiguous items, merged items of similar meaning before expert judgments, grammatical corrections and re-phrasing of some items were also made.

Pilot- testing of questionnaire was made with 15 instructors of Ambo University selected and later unenclosed in the final study from CAVS (3 instructors of department of Veterinary Lab. Technology) and from CNCS (7 instructors from Biology, 3 instructors from Chemistry, and 2 instructors from Mathematics departments).Reliability coefficients were computed by internal consistency method using Cronbach Alpha. The reliability value computed on total degree base was (0.899) with the value of Cronbach's Alpha Based on Standardized Items (0.72) for the total items of 74, indicates that there is a sufficient degree of homogenous and agreement. The item total reliability ranges between 0.887 to 0.908(Appendix 6a). Besides, the reliability coefficient of researcher-developed multi-item instrument with a 5-points Likert type scaling where 5-strongly agree, 4-agree, 3- undecided, 2- disagree, and 1-strongly disagree were computed and Cronbach's Alpha for item # 3 with 5 items (Appendix 6b), item # 20 with 15 items (Appendix 6c), items # 27-29 with 20 items (Appendix 6d) and items # 3,20, and 27-29 with 40 items (Appendix 6e) were calculated and found that 0.38, 0.77, and 0.65 respectively. The researcher distributed the entire questionnaire (Appendix 1) on 22nd February 2012 and collected after 14 days.

Sequentially, after the survey data were collected and preliminary analysis was made, with the interview technique, sequentially collected qualitative data on 15th May 2012 from the key informants in Ambo University.

3.6 Methods of data analysis: Quantitative data were summarized and described using descriptive statistics (frequency distribution, cross-tabulation, mean, and standard deviation) and were analyzed using inferential statistics (t-test, independent sample t-test, and binary logistic regression).The level of significance of 0.05 was selected. Qualitative data was analyzed for recurring themes and concepts.

CHAPTER FOUR: PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

This chapter comprises two major sections: presentation of the results of the study and analysis and interpretations of the data and the determinant motivational strategies and presented respectively.

4.1 PRESENTATION OF DATA

This first section of this chapter includes the presentation of the results of the characteristics of the respondents, status of ERP, determinant hindering factors and determinant motivational strategies.

4.1.1 Characteristics of Respondents and key informants

The next table presented the cross-tabulation of the survey respondents' profile by the name of the college/institution.

Table 5: *Cross tabulation of survey respondents' profile by college/institution*

S/N	Variable	Labels	Name of the Colleges/Institution						Total	
			CNCS		CSSH		IEPS			
			N	%	N	%	N	%	N	%
1	Sex	M	17	89.5	20	87	18	100	55	91.7
		F	2	10.5	3	13	-	-	5	8.3
		Total	**19**	**100**	**23**	**100**	**18**	**100**	**60**	**100**
2	Age in category	<25	4	21.1	6	26.1	1	5.6	11	18.3
		26-30	6	31.6	6	26.1	5	27.8	17	28.3
		31-35	6	31.6	4	17.4	6	33.3	16	26.7
		36-40	2	10.5	5	21.7	2	11.1	9	1.5
		>40	1	5.3	2	8.7	4	22.2	7	1.2
		Total	**19**	**100**	**23**	**100**	**18**	**100**	**60**	**100**
3	Marital status	Single	7	36.8	12	52.2	5	27.8	24	40
		Married	12	63.2	11	47.8	13	72.2	36	60
		Total	**19**	**100**	**23**	**100**	**18**	**100**	**60**	**100**
4	Educational qualification	Bsc/BA	3	15.8	4	17.4	2	11.1	9	15
		Msc/MA	16	84.2	18	78.3	16	88.9	50	83.3
		PHD &above	-	-	1	4.3	-	-	1	1.7
		Total	**19**	**100**	**23**	**100**	**18**	**100**	**60**	**100**
5	Academic rank	GA lecturer	3	15.8	3	13	1	5.6	**7**	11.7
		Lecturer	16	84.2	18	78.3	17	94.4	51	85
		Ass. Prof.	-	-	2	8.7	-	-	2	3.3
		Total	**19**	**100**	**23**	**100**	**18**	**100**	**60**	**100**
6	Teaching experience in category & years	<1	1	5.3	6	26.1	2	11.1	9	15
		2-5	7	36.8	4	17.4	7	38.9	18	30
		6-10	7	36.8	5	21.7	5	27.8	17	28.2
		11-15	2	10.5	4	17.4	2	11.1	8	13.3
		>15	2	10.5	4	17.4	2	11.1	8	13.3
		Total	**19**	**100**	**23**	**100**	**18**	**100**	**60**	**100**
7	Teaching load in category & hours	<1	1	5.3	1	4.3	1	5.6	3	5
		6-10	12	63.2	8	34.8	8	44.4	28	46.7
		11-15	6	31.6	14	60.9	7	38.9	27	45
		>16	-	-	-	-	2	11.1	2	3.3
		Total	**19**	**100**	**23**	**100**	**18**	**100**	**60**	**100**
8	Term of employment	Contract	2	10.5	7	30.4	6	33.3	15	25
		Permanent	17	89.5	16	69.6	12	66.7	45	75
		Total	**19**	**100**	**23**	**100**	**18**	**100**	**60**	**100**

*****Details Appendices 3-5

As shown in Table 5, above, out of the total of 60 survey respondents, the total of 24 (40%), 23 (38.3%) & 13 (21.7%) were constituted from the CNCS, CSSH, & IEPS respectively. This implies that more respondents were from CNCS. Among these total sample instructor-respondents, 55 (91.7%) of them were males and only one-eleventh, 5 (8.3%) were females. This shows that with big gap, male respondents were involved than female respondents having no impact on the results of this study. In terms of age category of the respondent 11(18.3%), 17(28.2%), 16 (26.7%), 9 (1.5%) and 7 (1.2%) sample instructor-respondents were in the age ranges of < 25years, 26 to 30 years, 31 to 35 years, 36 to 40 years, and above 40 years respectively. This also implies that most of the respondents who were involved in this study were found between the age of 26 to 30 years and between the ages of 31 to 35 years. In other words, most of them were found in the productive age group. Indeed, 36 (60%) where married and 24 (40%) were not.

Another variable used in describing the characteristics of the sample instructor-respondents was their educational qualification. In this study, 16 (84.2%), 18 (78.3%), and 16 (88.9%) of the sample instructor-respondents were holders of Msc/MA from CNCS, CSSH, & IEPS respectively. In total, 50 (83.3%) sample instructor-respondents who were involved in this study were holders of their second degree. It was depicted in the above table that only 1(4.3%) respondent was with third degree from the CSSH. This shows that sample instructor-respondents who have better educational qualification seem to have an opportunity and skill of conducting educational research in the University. In the contrary, the same table also shows that there were 9 (15%) of the sample instructor-respondent with only first degree, either Bsc/BA. This seems to have an impact on the effectiveness of their participation to undertake educational research in the University. So, the existing situation depicted the gap between what is desired by the education policy and what actually is in Ambo University.

With respect to academic rank of respondents, 51(85%) were ranked as lecturers, 7 (11.7%) were GAs and 2 (3.2%) were assistant professor in rank respectively. This reflects that the sample instructor-respondents who were lecturer in their academic rank were greater in size as compared to the others. With regard to teaching experience, the above table shows that 18 (30%) served for about 2 to 5 years: 7 (36.8%), 4 (17.4%), and 7 (38.9%) were from CNCS, CSSH, and IEPS respectively. The other 17 (28.2%) sample instructor-respondents served for about 6 to 10 years: 7 (36.8%), 5 (21.7%), and 5 (27.8%) were from CNCS, CSSH, and IEPS respectively. Respondents with less than a year teaching experience were 9 (15%) in number. Sample instructor-respondents with lowest

teaching experience were 8 (13.3%) in number for each range of teaching experience from 11 to 15 and greater than 16 years.

Concerning the teaching load, the above Table 5 shows that most 28 (46.7 %) of the sample instructor-responders have reported that they teach 6 to 10 periods per week, of which the majority (12/63.2%) were from the CNCS. The others 27 (45%) reported that they teach 11 to 15 periods per week, of which the majority (14/60.9%) were from CSSH. The other sample instructor-respondents with less than 1 period/week and greater than 16 periods/week were 3 (5%) and 2 (3.3%) respectively. This description of the percentage simply tells us that most of the sample instructor-respondents in the University could have considerable amount of time per week (12 periods per week is expected) beyond their teaching work so that they could devote these spare times to conduct educational research projects and be promoted to the desirable academic rank. The total of 45(75%) and 15(25%) of the sample instructor-respondents were working in the University on the basis of permanent and contract term of employment respectively. Out of this, the above table also shows that most of the permanent terms of employment were from CNCS (17/89.5%) and from CSSH(16/69.6%).But contract term of employment from CSSH and IEPS were 7 (30.4%) and 6 (33.3%) in number respectively.

Finally, concerning the profile of the interview participants 1 from CNCS, 2 department heads (Physics and AECD), and 3 (M) purposively sampled instructors were involved (total =6 interviewees). Their educational qualification was MA/Msc(N=6) and their academic rank was (N=6) lecturers.

4.1.2The status, determinant hindering factors and determinant motivational strategies

The following are the results of the status, determinant hindering factors and determinant motivational strategies presented accordingly.

4.1.2.1 The Status of ERP in Ambo University:

*Research and Mission Statements of AU***:** The result of the SPSS output reveals that 46 (76.7%) reported that Ambo University made research work as part of its mission statement. Only 3 (5%) respondents reported that Ambo University doesn't make research as part of its mission statement and 11(18.3%) reported that they don't know whether the University makes research part of its mission statement or not. This reveals that Ambo University make clear to its majority of the

instructors on the mission statement of the University that research undertakings is part of the University's mission statement($\overline{X}$ = 1.42, s=0.79). It was asserted by interview made with sample instructor (I_5) on 15th May 2012 that he states as " Yes, Ambo University makes research part of its mission statement that is depicted in the compound of the AU on board, in partials it says that committed to the basic objective of providing relevant and quality education, research, and community services"(I_5).

*Instructors rating of the status of the educational research in AU***:** only 6 (10%) high, 34 (56.7%) rated medium, 17 (28.3%) rated low and the other 3 (5%) rated as very low ($\overline{X}$ =2.78 and s=0.72). The interview of made with the Dean of CNCS substantiated the responses of the 34 (56.7%) survey respondents. He states as "… in my opinion, the status of educational research practices in Ambo University could be rated as medium status but not high…" (I_1).Yet more, other interviewees (I_2, I_3, and I4) with the interview made on 15th May 2012 shows rated medium status to ERP in AU.

Major characteristics of ERP in AU:

Table 6: *Mean and standard deviation of the characteristics of ERP*

# 3. Attributes		Frequencies		Descriptive Statistics		
				$\overline{X}$		S
		N	%	Score	Rank	
3.1 Not well developed	Strongly agree	15	25.0	3.93	1	.821
	Agree	29	48.3			
	Undecided	13	21.7			
	Disagree	3	5.0			
3.2 Limited to MA thesis/PhD dissertations	Strongly agree	12	20.0	3.82	2	.854
	Agree	30	50.0			
	Undecided	13	21.7			
	Disagree	5	8.3			
3.3 Low in quantity	Strongly agree	11	18.3	3.73	3	.910
	Agree	21	35.0			
	Undecided	15	25.0			
	Disagree	5	8.3			
	Not responding	8	13.3			
3.4 Faced problems associated with quality	Strongly agree	5	8.3	3.48	4	1.00
	Agree	20	33.3			
	Undecided	12	20.0			
	Disagree	5	8.3			
	Strongly disagree	2	3.3			
	Not responding	16	26.7			
	Total	60	100.0			
3.4 Insignificant in undertaking relevant research	Strongly agree	7	11.7	3.02	5	1.294
	Agree	7	11.7			
	Undecided	13	21.7			
	Disagree	8	13.3			
	Strongly disagree	6	10.0			
	Not responding	19	31.7			

As shown in Table 6, it was found that the status of ERP in AU was "medium". Further investigation was made to describe its current characteristics based on some attributes identified from the literature and Table 6, shows that the status of ERP in AU was found as not well developed(agreed-29/48.3%), $\overline{X}$ = 3.93 & s=0.82),limited to MA thesis/PhD dissertations (agreed-30/50%), $\overline{X}$ = 3.82 & s=0.85), low in quantity(agreed-21/35%), $\overline{X}$ = 3.73 & s=0.91), faced the problem of quality (agreed-20/33.3%), $\overline{X}$ = 3.48 & s=1), & insignificant in undertaking relevant research (not responding-19/31.7%), $\overline{X}$ = 3.02 & s=1.29).

*Consistency of annual research plan with annual teaching plan***:** was presented in the next table 7.

Table 7: *Consistency of plans & instructors level of involvement*

Items			Frequency	Percentage	$\overline{X}$	S
4	In your opinion, instructors' educational research practice has to be done consistently with their teaching? If so why?	Agree	53	88.3	1.12	0.32
		Disagree	7	11.7		
		Total	60	100.0		
5	If your response to item # 4 is "Agree", do you have your annual educational research plan in line with your annual teaching plan? If no why?	Yes	16	30.2	1.70	0.46
		No	37	69.8		
		Total	53	100.0		
6	Do you agree with the responsibility of higher education instructors' involvement in educational research work? If so why?	Agree	55	91.7	1.10	0.35
		Disagree	4	6.7		
		Undecided	1	1.7		
		Total	60	100		
7	If your response to item # 5 is "Agree", do you participate?	Yes	32	58.2	1.42	0.49
		No	23	41.8		
		Total	55	100		
8	If your response is "yes", what is the type of your involvement?	Individual	4	12.5	2.22	0.66
		Collaborative	17	53.1		
		Both types	11	34.4		
		Total	32	100		

Table 7, shows that 53(88.3%) sample instructor- respondents agreed ($\overline{X}$ = 1.12 & s=0.32) that instructors' educational research practice has to be done consistently with their teaching. However, 7(11.7%) disagreed ($\overline{X}$ = 1.12 & s=0.32). Besides, the table reveals that those sample instructor-respondents who were agreed with the consistency of instructors' ERP with their teaching had

reported that 16(30.2%) of them have their own annual educational research plan in line with their teaching plan and 37(69.8%) of them responded that they don't have ($\overline{X}$ = 1.70 & s=0.46).

Concerning the responsibility of higher education instructors' involvement in educational research work, the above table also shows that 55(91.7%) sample instructor- respondents agreed, 4(6.7%) disagreed, and 1(1.7%) undecided ($\overline{X}$ = 1.10 & s=0.35) and found that only 32(58.2%) of them were currently participating in doing educational research and the remaining 23(41.8) of them were not participating ($\overline{X}$ = 1.42 & s=0.49). Furthermore, the table also shows that out of the total sample instructor-respondents who responded " yes" to their involvement into educational research works, the majority of them, 17(53.1%) were involved collaboratively. Only 4(12.5%) and 11(34.4%) were involved individually and in both types respectively ($\overline{X}$ = 2.22 & s=0.66). Concerning the type of participation of the sample instructor-respondents' (Table 7), it was depicted that 4(12.5%) participating individually, 17(53.1%) participating collaboratively, and 11(34.4%) participating in both types.

Besides, the qualitative portion of the study result shows that "…there is the involvement of instructors to do educational research either individually or in groups but it was not as it ought to be …" (I_6) on 15th May 2012. Moreover, according to the interview made with one of the department head on 15th May 2012, shows that:

> *… Instructors' motivation to do research exists in our department, even though; it is not as it ought to be. They get involved in advising graduate students. They prepared the research proposal and submit to the CNCS and when selected, defend the research proposal in the presence of our department's research coordinator. Despite such motivation and involvement, problems related to the supply of laboratory research materials were challenging and have been affecting their involvement… (I_1).*

The opinion of the dean of the CNCS was also revealed that "…there exists lack of experience with Ethiopian researchers. Mostly, the CNCS was highly dominated by Indian instructors than "Habesha" instructors that has its adverse effect on the status of the involvement of instructors to do research in AU…"(I_2). Interviewee from the department of Adult Education and Community development shows that"…at the departmental level, adult education and community development department was the newly established department as of August 2011. It was under the department of

EDPM. Two instructors were participating to do research when they worked for AU under EDPM department. Now, not yet participating…" (I_3). Another interviewee from the department of English states that "… I have 2 years of experiences in AU. English department instructors were involved to do research in group than individual due to budget problem. Also, there is college qota to do research. As a result, 3-4 instructors submit research topic and if accepted by the college, they will keep researching for the purpose of their promotion from instructor to associate professor…"(I_4).

Table 8: Name of the department Vs educational research practices

Name of the College and departments			Participation in research		Total
			No	Yes	
College of Natural & Computational Sciences (CNCS)	1	Biology	0	1	1
	2	Chemistry	0	0	0
	3	Mathematics	9	2	11
	4	Physics	0	6	6
	5	Sport science	2	2	4
		Total	**11**	**11**	**22**
College of Social Sciences & Humanities (CSSH)	6	Afan Oromo & Literature	0	5	5
	7	English Language & Literature	2	8	10
	8	Civics & Ethical Education	2	1	**3**
	9	Sociology & Social Work	2	1	**3**
		Total	**6**	**15**	**21**
Institute of Education & professional studies (IEPS)	10	EDPM	3	2	5
	11	Adult Education & comm..dev't	1	2	3
	12	Psychology	2	1	3
		Total	**6**	**5**	**11**
		Grand Total	**23**	**32**	**60**

The above Table 8, shows that the cross tabulation of the name of the department and those sample instructor-respondents 34(56.7%) survey respondents' response to their current participation in educational research practices. It reveals that 1st CSSH (N=15), 2nd CNCS (N=11), and IEPS (N=5) were in favor of ERP. In terms of the name of the departments 1st English language and literature (N=8), 2nd physics (N=6), and 3rd Afaan Oromo & literature (N=5) were highly in favor of the ERP. The other departments with the frequency of (N=2 each) were the department of Mathematics, EDPM,AECD, and Sport science found at the medium level of ERP as compared to the other departments in terms of participation. The least (only N=1 each) were from the department of Biology, Civics and Ethical Education, Sociology & Social work, and psychology.

Table 9: *Instructors' research purpose*

Item		N	Percent
#10).The reason(s) for your previous study was/were (*Multiple responses are possible*): **I participate:**	10.1).For scholarly prestige/ do with my promotion	23	31.1%
	10.2).For effective teaching-learning	22	29.7%
	10.3).To k answers to various social problem	15	20.3%
	10.4).To test theory	8	10.8%
	10.5).To develop theory	6	8.1%
Total		74(*)	100.0%

**The number is greater the current sample size due to multiple responses*

The above Table shows that 23(31.1%) for scholarly prestige/ do with my promotion, 22(29.7%) for effective teaching-learning /quality of instruction, 15(20.3%) to k answers to various social problems, 8(10.8%) to test theory, and 6(8.1%) to develop the theory were responded.

Table 10: *Instructors' research work status of publication*

Item			Frequency	Percentage
#11).How about the status of publication of educational research on reputable journals? If published how many times?	11.1).Individually	Published	4	12.5
		Unpublished	28	87.5
		Total	32	100.0
	11.2).Collaboratively	Published	5	15.6
		Unpublished	27	84.4
		Total	32	100.0
	11.3).In both cases	Published	2	6.3
		Unpublished	30	93.8
		Total	32	100.0

As indicated in Table 10, out of the total 32(58.2%) who were participating to educational research work, individually 28(87.5%), collaboratively 27(84.4%), and in both cases 30(93.8%) were unpublished their educational research works on the reputable journals. This shows that most of the instructors who were involved in to the practices of educational research, either individually, collaboratively, or in both cases, were unpublished their research reports on the reputable journals.

Educational research supports given: Out of the total 32(58.2%) sample instructor-respondents who were involved into the practices of educational research in Ambo University, 18(56.3%) of them were not given educational research supports from their University. However, 14(43.8%) of the sample instructor-respondents were given educational research supports from their University ($\overline{X}$ =2.78 & s=0.72). Added to the quantitative results, one of the key informants from the department of

Adult Education and Community Development states that "… from AU no basic facilities (printer, lap, computers, photocopy machines and others) were given. Whereas, college deans and department heads do have their own laptops and computers, thereby, use them during their involvement to do educational research…" (I_3).

The interviewee made with the department head of Physics reveals that "… educational research supports were given in the form of instructors' orientation and awareness. Althugh, not satisfactory, there were supports in the form of finance that includes transportation costs, printer costs, publication costs, duplication costs, writing costs, and other costs included in the research budget proposal…"(I_1). Interviewee made with the dean of the CNCS shows that there exist limited educational research supports given from the University. He states that "… the educational research support given from AU was limited. Instructors were given means of transport conditionally, if not, settling their transportation costs against the given receipt. Laboratory equipments and other facilities were limited. The purchasing rules and regulations of the government have its own adverse effect to the timely completion of the on-going research…" (I_2).

Table 11: *Instructors' application of ER type(s)*

Item		Responses		Rank
		N	Percent	
#13).Which educational research type(s) you were preferred in your study (*Multiple responses are possible)?*	13.1).Action research	34	27.6%	1
	13.2).Case study research	16	13.0%	3
	13.3).Correlational research	13	10.6%	5
	13.4).Descriptive research	22	17.9%	2
	13.5).Experimental research	14	11.4%	4
	13.6).Explanatory or causal research	8	6.5%	6
	13.7).Ex post facto research	3	2.4%	9
	13.8).Historical research	6	4.9%	7
	13.9).Longitudinal research	1	0.8%	10
	13.10).Naturalistic/ethnographic research	1	0.8%	10
	13.11).Cross-sectional studies	5	4.1%	8
Total		123*	100.0%	

**The number is greater the current sample size due to multiple responses*

Table 11, shows that 34(27.6%) samples preferred action research over the other typologies of educational research followed by descriptive research (22/17.9%). Case study was thirdly preferred by 16(13%) sample instructors. Experimental research forth (14/11.4%), correlation research

(13/10.6%), Historical research (6/4.9%), Cross-sectional studies (5/4.1%), Ex-post facto research (3/2.4%), and naturalistic/ethnographic research and longitudinal studies each by 1(0.8%) were preferred by sample instructors of this study.

Preference and application of ER Methodologies: There are three types of educational research methodologies: Quantitative, qualitative, and Mixed Methods Methodology that was used as another parameter of describing the status of ERP in AU.

Table 12: *Instructors preference to ER Methodology*

Items		Frequencies	
		N	%
14).What was your preference to ER methodology?	No preference	3	9.4
	Quantitative	4	12.5
	Qualitative	6	18.8
	Mixed methods	19	59.4
	Total	32	100.0

Table 12, shows that out of the total 32(58.2%) sample respondents who were involved in educational research work, 19(59.4%) samples were preferred and applied Mixed Methods educational research methodology over the single use of quantitative or qualitative methodology. As a result, based on the response of the sample instructors' to the multiple response item related to Mixed Methods research methodology , 18(42%) instructors employed the combination or association of both quantitative and qualitative forms of educational research methodology. Furthermore, from the sample instructors who applied Mixed Methods research methodology, 12(28.6%) of them were approached their data collection concurrently and equally 12(28.6%) of them approached their data collection sequentially.

The other 6(18.8%) of the total educational research participants in Ambo University were approached their study qualitatively and of which 3(30%) approached their study inductively, 3(30%) focused in their participants view, 2(20%) developed concept map of their study, and 2(20%) undertook holistic analysis of their qualitative data. Ambo University sample instructors preference to the quantitative educational research methodology was also asked and found that 4(12.5%) instructors of whom 3(23.1%) defined clearly their independent variables, 3(23.1%) defined their dependent variable clearly, too, 2(15.4%) made causal explanations to their variables, and 2 (15.4%) made prediction of the study based on their quantitative data.

Application of the basic elements of the educational research processes: The frequency distribution concerning the level of agreement of sample instructor-respondents response shows that out of the total 32(58.2%) of the sample instructors who were participating in the educational research practices in the University; 2(6.3%) of them totally agreed, 12(37.5%) of them mostly agreed, 14(43.8%) of them mostly disagreed, 3(9.4%) of them totally disagreed, and 1(3.1%) responded don't know. Further investigation of the status of the ERP in Ambo University seems indispensable based on the details of the application of the basic elements of the educational research processes as identified in the literature (Table 13).

Table 13: *Application of basic elements*

S/N	#18).Basic Elements of Educational Research Processes	Frequency			
		Yes	No	NA	T
18.1	Chosen research topic/problem based on criterion in specific way.	22/68.8%	2/6.3%	8/25%	32/100%
18.2	Specified the research title that contains variables	16/50%	8/25%	8/25%	32/100%
18.3	Collected needed information by reviewing literatures	24/75%	2/6.3%	6/18.8%	32/100%
18.4	Set research question unambiguously	17/53.1%	7/21.9%	8/25%	32/100%
18.5	Hypotheses the study derived from the research questions in accurate form	11/34.4%	8/25%	13/40.6%	32/100%
18.6	Applied appropriate research design(s)	21/65.6%	2/6.3%	9/28.1%	32/100%
18.7	Determined appropriate sampling techniques(s)	22/68.8%	3/9.4%	7/21.9%	32/100%
18.8	Determined sample size based on sample size determination techniques(s)	17/53.1%	5/15.6%	10/31.3%	32/100%
18.9	Selected dependable data collection tools (methods)	20/62.5%	5/15.6%	7/21.9%	32/100%
18.10	Validated research instruments using appropriate validation techniques	13/40.6%	9/28.1%	10/31.3%	32/100%
18.11	Checked the reliability of research instruments using appropriate reliability technique(s)	11/34.4%	10/31.3%	11/34.4%	32/100%
18.12	Selected appropriate data analysis technique(s)	21/65.6%	1/3.1%	10/31.3%	32/100%
18.13	Answered your basic questions.	23/71.9%	3/9.4%	6/18.8%	32/100%
18.14	Tested the hypothesis.	11/34.4%	7/21.9%	14/43.8%	32/100%
18.15	Generalized the study	13/40.6%	9/28.1%	10/31.3%	32/100%
18.16	Contextualized the study	14/43.8%	9/28.1%	9/28.1%	32/100%
18.17	Presented clear research report.	17/53.15	3/9.4%	12/37.5%	32/100%
18.18	Issued recommendations.	20/62.5%	3/9.4%	9/28.1%	32/100%
18.19	Disseminated the research results using various mechanisms.	9/28.1%	14/43.8%	9/28.1%	32/100%

Table 13, shows the details of the basic elements of the educational research processes compiled by the researcher from the various literature and presented to the sample instructors of Ambo University. Out of the total 32(58.2%) instructors who responded "Yes" to item # 7 (Table 7), shows

that 22(68.8%) of them replied “Yes” showing that they have chosen their research topic/problem based on the criterion in specific way and 2(6.3%) of them responded “No, and 8(25%) responded “Not applicable”. With respect to the specification of the research title that contains variables 16(50%) responded “Yes”, 8(25%) responded “No”, and 8(25%) responded “Not applicable”. Besides, 24(75%) responded “Yes”, 2(6.3%) responded “No”, and 6(18.8%) responded “Not applicable” with respect to the collection of the needed information reviewing the related literatures, 17(53.1%) responded “Yes”, 7(21.9%) responded “No”, and 8(25%) responded “Not applicable” with respect to the setting of the research question unambiguously, and 11(34.8%) responded “Yes”, 8(25%) responded “No”, 13(40.6%) responded “N not applicable” with respect to the hypothesizing of the study derived from the research questions in accurate form. Only 11(34.8%) sample instructor-respondents hypothesized of their study derived from the research questions in accurate forms.

Moreover, 21(65.6%) responded “Yes”, 2(6.3%) responded “No”, 9(28.1%) responded “Not applicable” with respect to the application of the appropriate research design(s) in their studies, 22(68.8%) responded “Yes”, 3(9.4%) responded “No”, 7(21.9%) responded “Not applicable” with respect to the determination of appropriate sampling technique(s),17(53.1%) responded “Yes”, 5(15.6%) responded “No”, 10(31.3%) responded “Not applicable” with respect to the determination of sample size based on sample size determination technique(s), and 20(62.5%) responded “Yes”, 5(15.6%) responded “No”, 7(21.9%) responded “Not applicable” with respect to the selection of dependable data collection tools(methods). With respect to validation and reliability analysis, 13(40.6%) responded “Yes”, 9(28.1%) responded “No”, 10(31.3%) responded “Not applicable” with respect to the validation of research instruments using appropriate validation techniques. Also, 11(34.4%) responded “Yes”, 10(31.3%) responded “No”, 11(34.4%) responded “Not applicable” with respect to checking the reliability of research instruments using appropriate reliability techniques. In relation to the selection of data analysis, 21(65.6%) responded “Yes”, 1(3.1%) responded “No”, 10(31.3%) responded “Not applicable” with respect to the selection of appropriate data analysis technique(s).

Finally, concerning answering basic questions(N=23/71.9% responded “Yes”, 3/9.4% responded “No”, and 6/18.8% responded “Not applicable”), testing of the hypothesis(N=11/34.4% responded “Yes”, 7/21.9%) responded “No”, 14/43.8%) responded “Not applicable”),generalization of the

study(N=13/40.6%) responded “Yes”, 9/28.1%) responded “No”, 10/31.3% responded “Not applicable”),contextualization of the study(N=14/43.8% responded “Yes”, 9/28.1% responded “No”, 9/28.1% responded “Not applicable”),presentation of clear research report(N=17/53.1% responded “Yes”, 3/9.4%) responded “No”, 12/37.5% responded “Not applicable”),issuing of recommendations(N=20/62.5% responded “Yes”, 3/9.4% responded “No”, 9/28.1% responded “Not applicable”), and dissemination of the research results using various mechanisms(N= 9/28.1% responded “Yes”, 14/43.8% responded “No”, 9/28.1% responded “Not applicable”).

4.1.2.2The Major Determinant Hindering Factors:

Multiple causal factors affected instructors’ involvement to do educational research in AU. Table 14, shows the results of these determinant hindering factors.

Table 14: Hindering instructors’ involvement

# 20.).Determinant Hindering factors			Frequency distribution						Descriptive Statistics		
			Strongly Agree (SA)	Agree (A)	Undecided (U)	Disagree (D)	Strongly Disagree (SD)	Total	$\overline{X}$ Score	R	S
20.1	Sex	N	2	7	5	5	41	60	1.73	15	1.22
		%	3.3	11.7	8.3	8.3	68.3	100			
20.2	Educational Level	N	8	16	11	11	14	60	2.88	14	1.39
		%	13.3	26.7	18.3	18.3	23.3	100			
20.3	Years of teaching experience in higher education	N	11	18	14	10	7	60	3.27	13	1.27
		%	18.3	30.0	23.3	16.7	11.7	100			
20.4	Field of specialization	N	12	18	15	6	9	60	3.30	12	1.32
		%	20	30	25	10	15	100			
20.5	Perception towards educational research	N	10	25	10	9	6	60	3.40	10	1.22
		%	16.7	41.7	16.7	15.0	10.0	100			
20.6	Interest to do educational research	N	16	26	4	8	6	60	3.63	4	1.29
		%	26.7	43.3	6.7	13.3	10.0	100			
20.7	Problem of personnel capacity	N	14	19	11	7	8	59*	3.41	8	1.34
		%	23.3	31.7	18.3	11.7	13.3	98.3			
20.8	Lack of research infrastructures(eg. computers)	N	19	19	5	8	8	59*	3.56	5	1.42
		%	31.7	31.7	8.3	13.3	13.3	98.3			
20.9	Lack of research budget/fund	N	22	22	8	7	1	60	3.95	1	1.06
		%	36.7	36.7	13.3	11.7	1.7	100			
20.10	Work load/shortage of time like teaching load & others	N	13	21	9	12	5	60	3.42	7	1.27
		%	21.7	35.0	15.0	20.0	8.3	100			
20.11	Lack of publication outlets like scholarly journals	N	17	26	8	7	1	59*	3.86	3	1.03
		%	28.3	43.3	13.3	11.7	1.7	98.3			
20.12	Lack of dissemination channels like workshops	N	16	31	6	4	3	60	3.88	2	1.04
		%	26.7	51.7	10.0	6.7	5.0	100			
20.13	Low job satisfaction	N	15	18	10	9	8	60	3.38	11	1.37
		%	25.0	30.0	16.7	15.0	13.3	100.0			
20.14	Poor organizational commitment	N	13	18	13	12	4	60	3.40	9	1.22
		%	21.7	30.0	21.7	20.0	6.7	100.0			
20.15	Lack of work motivation	N	16	22	8	5	9	60	3.52	6	1.37
		%	26.7	36.7	13.3	8.3	15.0	100.0			

** Missing value*

As depicted in the Table 14, there are multiple human, materials, economic, institutional, and motivational causal factors that hampered the involvement of AU instructors to do research. Lack of research budget (SA to A: n=44, $\overline{X}$ =3.95 , s=1.06 ,D to SD: n=8). The survey result was sequentially triangulated with the interviewee results made on 15th May 2012. Accordingly, one of the key informants related to educational research budget/fund and its amount as a determinant hindering factor states that "…the adverse effect of educational research budget/fund was highly critical as without budget no any commitment instructors can do. However, in the case of AU depending on the nature and extent of the research project that various from ETB 90,000.00 to 100,000.00 instructors could get supports after the officials announcement for the research proposal… (I_1).

Similar interview made on 15th May 2012 with the dean of CNCS shows that:

> *… Educational research budget in AU has been affecting the role of instructors to do research. The case of the CNCS instructors was not exceptional. There exist small amount of budget (ETB 50,000.00-100,000.00 per project) allocated for the same. Bad enough, there is no any cash goes to the pocket of the researchers in the form of honorarium fee that discharges the instructors as every approved budget will settle against each receipt…For this , I suggest AU for alternative source of income for research than solely relying on the government budget…(I_2).*

Adult education and community development department head has similar view as he states "… research budget has been a serious in AU amounting from ETB 30,000.00 to 40,000.00.After the approved budget, besides delay and bureaucratic ties, every expense settled against the receipt. No honorarium fee like in the case of Jimma University which I used worked…" (I_3).Besides lack of research budget, lack of dissemination channels like workshops (SA to A:n=47, $\overline{X}$ =3.88 , s=1.04 ,D to SD: n=10), lack of publication outlets like scholarly journals (SA to A/n=43, $\overline{X}$ =3.86 , s=1.03 ,D to SD: n=8), interest to do educational research (SA to A/n=42, $\overline{X}$ =3.63 , s=1.29 ,D to SD: n=14),lack of research infrastructures like computers & others (SA to A/n=38, $\overline{X}$ =3.56 , s=1.42 ,D to SD: n=16), lack of work motivation (SA to A:n=38, $\overline{X}$ =3.52 , s=1.37 ,D to SD: n=14),and work load/shortage of time like teaching load & others (SA to A:n=34, $\overline{X}$ =3.42 , s=1.27 ,D to SD: n=17) have been affecting the role of instructors doing research.

Interview was conducted with respect to the later and shows that "… instructors have to allocate 25% of their total time to do research. But in practice, the maximum teaching load we have is 16 periods/week due to English common courses. The smallest we have is 12 periods/week. Special arrangements for overloaded instructors (3 Cr.Hr. reduction or overtime payments) to do

research…"(I_4)).The view of I_4 from English department, the dean of the CNCS reflected his view as "… there exist instructors' workload to do research due to the shortage of instructors to the maximum of 18 periods/week…" (I_2). Contrary to this, in the case of Adult education and community development and physics department the negative influence of the instructors work load was sound insignificant as they mentioned, "… instructors were given 12 periods/wk and this is expected …"

Other deterring factor to do educational research for instructors are the problem of personnel capacity (SA to A: n=33, $\overline{X}$ =3.41 , s=1.34 ,D to SD: n=15), Poor organizational commitment (SA to A: n=31, $\overline{X}$ =3.40 , s=1.22 ,D to SD: n=16), Perception towards educational research(SA to A: n=35, $\overline{X}$ =3.40 , s=1.22 ,D to SD: n=15), Low job satisfaction(SA to A:n=33, $\overline{X}$ =3.38 , s=1.37 ,D to SD: n=17), Field of specialization(SA to A: n=20, $\overline{X}$ =3.30 , s=1.32 ,D to SD: n=15), and Years of teaching experience in higher education(SA to A: n=29, $\overline{X}$ =3.27 , s=1.27 ,D to SD: n=17) were responded by the respondents that they have affected their participation to educational research in the University. However, educational level (SA to A: n=24, $\overline{X}$ =2.88 , s=1.39 ,D to SD: n=25) and Sex of the respondents (SA to A: n=9, $\overline{X}$ =1.73 , s=1.22 ,D to SD: n=46) were found not to affect the majority of the sample respondents.

Table 15: Binary logistic regression of determinant hindering IV & participation in ER DV (N=60)

#20). Predictor Variables		B	S.E.	Wal	df	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
								Lower	Upper
20.1	Sex	.930	.669	1.933	1	.164	2.535	.683	9.409
20.2	Educational Level	-2.209	1.15	3.720	1	.054	.110	.012	1.036
20.3	Years of teaching experience in higher education	-1.441	.890	2.623	1	.105	.237	.041	1.354
20.4	Field of specialization	.473	.530	.797	1	.372	1.605	.568	4.530
20.5	Perception towards educational research	2.037	1.04	3.825	1	.049	7.670	.996	59.096
20.6	Interest to do educational research	2.638	1.09	5.914	1	.015	13.978	1.668	117.124
20.7	Problem of personnel capacity	1.262	.692	3.323	1	.068	3.531	.910	13.712
20.8	Lack of research infrastructures like computers, & others	-1.590	.900	3.123	1	.077	.204	.035	1.189
20.9	Lack of research budget/fund	.456	.914	.249	1	.618	1.577	.263	9.466
20.10	Work load/shortage of time like teaching load & others	1.839	.905	4.130	1	.042	6.290	1.068	37.059
20.11	Lack of publication outlets like scholarly journals	.324	.884	.134	1	.714	1.382	.245	7.813
20.12	Lack of dissemination channels like workshops	.289	.906	.102	1	.750	1.335	.226	7.878
20.13	Low job satisfaction	.235	.441	.284	1	.594	1.265	.533	3.004
20.14	Poor organizational commitment	-1.137	.747	2.317	1	.128	.321	.074	1.387
20.15	Lack of work motivation	.353	.477	.546	1	.460	1.423	.558	3.627
	Constant	-14.873	6.52	5.199	1	.023	.000		

Table15 above shows, perception towards educational research (Sig=0.049 < 0.05 and Exp (B)=7.67) ,interest towards educational research practices with (Sig=0.015< 0.05 and Exp(B)=13.97) and work load/shortage of time like teaching and others with (Sig=0.042 < 0.05 and Exp(B)=6.29) have significant hindering contribution to the participation of instructors to do educational research. In other words, sample instructor-respondents interest towards educational research practices and work load/shortage of time like teaching and others with Exp (B) > 1 have shown that there exist positive relationships with instructors' educational research practices. That is, as sample instructor-respondents perception towards educational research, interest towards educational research increases and their work load/shortage of time like teaching load and others improved/decreased their participation in educational research works increased. In the contrary, other independent variables with Exp (B) < 1 have inverse (negative) relationship with dependent variable (participation in educational research).

4.1.2.3 Major Determinant Motivation Strategies

AU officials' role of motivation and instructors' level of motivation: It was found that lack of motivation was one of the determinant hindering factors to the involvement of AU instructors to do educational research. Table 16, shows that out of the total sample instructor-respondents, the total of 48(80%) were agreed, 8(13.3%) were disagreed, and 4(6.7%) were undecided ($\overline{X}$ =1.27, s=.58) to the University officials role of motivating instructors to do research.

Table 16: Motivating instructors

Items			N	%	$\overline{X}$	S
22	Do you agree with University officials' role of motivating instructors to do research? If agree, why?	Agree	48	80.0	1.27	.578
		Disagree	8	13.3		
		Undecided	4	6.7		
		Total	60	100		
23	Were you motivated by University officials to get involved in educational research? If "no" why?	Yes	26	43.3	1.57	.5
		No	34	56.7		
		Total	60	100.0		
24	If your response to item # 23 is "Yes", what is your overall level of motivation as a result of your University officials motivating instructors to actively engage in conducting educational research? If "very low or low" why?	Very low	4	15.4	2.18	1.01
		Low	8	30.8		
		Medium	11	42.3		
		High	3	11.5		
		Total	26	100.0		

Besides, the above table shows that out of the total sample instructor-respondents only 26(43.3%) of them were motivated by the University officials to do research ($\overline{X}$ =1.57, s=.50).In the contrary, the majority of instructors 34(56.7%) responded that they were not motivated by the University officials to do research. Further investigation is needed to assess and describe the level of motivation of the 26(43.3%) who got motivated by the University officials and responded that 3(11.5%) were highly motivated, 11 (42.3%) were medium motivated, 8(30.8%) were motivated low, and 4(15.4%) were motivated very low ($\overline{X}$ =2.18, s=1.01).

Instructors' ranking of their level of job satisfaction: Table 17, shows that sample instructor-respondents ranking of the listed intrinsic factors (6 set of job conditions) in the order of their significances to them. Accordingly, the same table shows that from lowest mean to highest mean value and the corresponding frequency distribution: 1st responsibility(N=19(31.7%) , $\overline{X}$ = 2.11(smallest mean value), and s=1.65), 2nd opportunity for growth(N=11(18.3%) , $\overline{X}$ = 3.3.0 and s=1.78), 3rd achievement(N=9(15 %) , $\overline{X}$ = 3.33, and s=1.54), 4th work itself (N=13(21.7%) , $\overline{X}$ = 3.60,and s=1.88),5th Advancement(N=11(18.3%) , $\overline{X}$ = 3.87,& s=1.72) and 6th Recognition(N=15(25%) , $\overline{X}$ = 3.87(highest mean value) & s=1.72).

Table 17: *Frequency distribution* $\overline{X}$ & S *instructors' rankings of their job satisfaction level*

#25).Factors (Ranking)		Rank and frequency distribution						Descriptive Statistics		
		1st	2nd	3rd	4th	5th	6th	$\overline{X}$	Rank	S
Advancement	N	4 (6.7%)	7 (11.7%)	17 (28.3%)	8 (13.3%)	13 (21.7%)	11 (18.3%)	3.87	5	1.523
	CF	6.7	18.3	46.7	60.0	81.7	100			
Work itself	N	13 (21.7%)	8 (13.3%)	6 (10 %)	9 (15%)	11 (18.3%)	13 (21.7%)	3.60	4	1.879
	CF	21.7	35	45	60	78.3	100			
Responsibility	N	19 (31.7%)	11 (18.3%)	10 (16.7%)	10 (16.7 %)	6 (10%)	3 (5.0%)	2.77	1	1.651
	CF	31.7	50	66.7	83.3	93.3	98.3			
Recognition	N	8 (13.3%)	5 (8.3%)	14 (23.3 %)	8 (13.3%)	10 (16.7%)	15 (25.0%)	3.87	5	1.722
	CF	13.3	21.7	45	58.3	75	100			
Opportunity for growth	N	11 (18.3%)	16 (26.7%)	5 (8.3 %)	10 (16.7%)	8 (13.3%)	6 (10%)	3.30	2	1.778
	CF	18.3	45	53.3	70	83.3	100			
Achievement	N	9 (15%)	12 (20%)	9 (15 %)	14 (23.3%)	12 (20%)	4 (6.7%)	3.33	3	1.537
	CF	15	35	50	73.3	93.3	100			

Instructors' ranking of job dissatisfaction: Table18 below shows the result of the sample instructor-respondents level of job dissatisfaction. That is, the extrinsic factors of job dissatisfaction presented to the respondents. That is, 1st work condition(N=16(26.7%) , $\overline{X}$ = 3.57(with smallest $\overline{X}$) and S=2.66), 2nd salary(N=11(18.3%) , $\overline{X}$ = 3.87, and s=2.85), 3rd organizational policy(N=2(3.3%) , $\overline{X}$ = 4.48, and s=2.16), 4th effects on personal life(N=7(11.7%) , $\overline{X}$ = 4.5,and s=2.77), 5th job security(N= 5(8.3%) , $\overline{X}$ = 4.68,and s=2.38), 6th interpersonal relationship (peer)(N=9(15%) , $\overline{X}$ = 5.58,and s=2.03), 7th interpersonal relationship (subordinate)(N=11(18.3%) , $\overline{X}$ = 6.0, and s=2.01),8th supervision (technical) (N=3(5.0%) , $\overline{X}$ = 6.08 and s=2.57), and 9th Status($\overline{X}$ = 6.30 (highest $\overline{X}$),and s=2.35)) were ranked according to their level of significances.

Table 18: *Frequency distribution* $\overline{X}$ & s *instructors' rankings of their job dissatisfaction level*

#26).Factors (Ranking)		Rank and frequency distribution									Descriptive Statistics		
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	$\overline{X}$	R	S
Effects on personal life	N	8 (13.3%)	11 (18.3%)	9 (15 %)	7 (11.7%)	3 (5%)	7 (11.7%)		7 (11.7%)	8 (13.3 %)	4.50	4	2.77
	CF	13.3	31.7	46.7	58.3	63.3	75	86.7	100				
Supervision(Technical)	N	4 (6.7%)	3 (5.0%)	5 (8.3 %)	2 (3.3%)	10 (16.7%)	9 (15.0%)	6 (10.0)	3 (5.0%)	18 (30.0 %)	6.08	8	2.57
	CF	6.7	11.7	20	23.3	40	55	65	70	100			
Job security	N	3 (5%)	10 (16.7%)	12 (20 %)	7 (11.7%)	5 (8.3%)	4 (6.7%)	10 (16.7%)	6 (10%)	3 (5 %)	4.68	5	2.38
	CF	5	21.7	41.7	53.3	61.7	68.3	85	95	100			
Salary	N	19 (31.7%)	11 (18.3%)	9 (15 %)	7 (11.7%)	3 (5%)	7 (11.7%)		7 (11.7%)	8 (13.3 %)	3.87	2	2.85
	CF	31.7	48.3	51.7	60	71.7	75	85	90	100			
Organizational policy	N	4 (6.3%)	5 (8.3%)	14 (23.3 %)	12 (20%)	7 (11.7%)	8 (13.3%)	1 (1.7%)	6 (5%)	3 (10 %)	4.48	3	2.16
	CF	6.7	15	38.3	58.3	70	83.3	85	95	100			
Interpersonal relationship(peer)	N	1 (1.7%)	1 (1.7%)	9 (15 %)	5 (8.3%)	8 (13.3%)	9 (15%)	11 (18.3%)	12 (20%)	4 (6.7 %)	5.88	6	2.03
	CF	1.7	3.3	18.3	26.7	40	55	73.3	93.3	100			
Interpersonal relationship(Subordinate)	N		4 (6.7%)	4 (6.7%)	9 (15%)	3 (5%)	12 (20%)	11 (18.3%)	13 (21.7%)	4 (6.7 %)	6.00	7	2.01
	CF		6.7	13.3	28.3	33.3	53.3	71.7	93.3	100			
Working condition	N	16 (26.7%)	15 (25%)	4 (6.7 %)	8 (13.3%)	3 (5%)	2 (3.3%)	4 (6.7%)	4 (6.7%)	3 (5 %)	3.57	1	2.66
	CF	26.7	51.7	58.3	71.7	76.7	80	86.7	93.3	98.3			
Status	N	4 (6.7%)	1 (1.7%)	2 (3.3 %)	4 (6.7%)	12 (20%)	5 (8.3%)	10 (16.7)	8 (13.3%)	14 (23.3 %)	6.30	9	2.35
	CF	6.7	8.3	11.7	18.3	38.3	46.7	63.3	76.7	100			

Major determinant list of applicable motivational strategies: From Annex 8, frequency distribution and total mean values > 3.50 for all variables under each major motivational theories),

the sample instructor-respondents had identified instructor's having necessary knowledge, abilities, & skills to do research from process theory of motivation(SA to A: n=55, $\overline{X}$ =4.38 , s=0.74 ,D to SD: n=2), degree of equity that instructors perceive in their work situation from process theory of motivation (SA to A:n=48,Total $\overline{X}$ =4.22 , s=0.80 ,D to SD: n=1), focusing on trust& intimacy among instructors & officials from content theory of motivation(SA to A:n=47,Total $\overline{X}$ =4.22 , s=1.19 ,D to SD: n=6), job enrichment motivational techniques like creating opportunities & others from content theory of motivation(SA to A:n=49,Total $\overline{X}$ =4.12 , s=1.19 ,D to SD: n=6), and be good/paternalistic techniques like providing good education & others from content theory of motivation(SA to A:n=45,Total $\overline{X}$ =4.10 , s=1.06 ,D to SD: n=5), instructor's expectation of achieving the goal from process theory of motivation(SA to A:n=49,Total $\overline{X}$ =4.08 , s=1.03 ,D to SD: n=6), and goal setting to achieve higher performance from process theory of motivation(SA to A:n=44,Total $\overline{X}$ =3.93 , s=1.02 ,D to SD: n=7) as applicable motivational strategies in the case of AU to enhance instructors do educational research.

Also, what motivates instructors is situation from content theory of motivation(SA to A:n=44,Total $\overline{X}$ =3.85 , s=1.22 ,D to SD: n=8), non-financial inactivates like promotion & others from reinforcement theory of motivation(SA to A:n=41,Total $\overline{X}$ =3.70 , s=1.32 ,D to SD: n=13), and financial incentives like fair salaries, medical reimbursement,& others from reinforcement theory of motivation(SA to A:n=41,Total $\overline{X}$ =3.68 , s=1.38 ,D to SD: n=13), fulfilling physiological needs , and other needs continuously from content theory of motivation(SA to A:n=38,Total $\overline{X}$ =3.67 , s=1.47 ,D to SD: n=17), and providing an individual with extrinsic reward to perform from content theory of motivation (SA to A:n=37,Total $\overline{X}$ =3.53 , s=1.11 ,D to SD: n=11) were other strategies.

Mean differences between participating & non-participating sample respondents: There was no statistically significant difference (sig > 0.05) among respondents who responded "Yes" and "No" (Annex 8). That is, they were equally motivated by the strategies. This was evidenced by statistics for each strategies like instructor's having necessary knowledge, abilities, & skills to do research (group $\overline{X}$ for "Yes"= 4.25 and for "No"=4.57, t= -1.54,df=53, and sig. 0.129>0.05), focusing on trust& intimacy among instructors & officials (group $\overline{X}$ for yes= 4.28 and for no=4.35, t= -.23,df=53, and sig 0.822>0.05), Job enrichment motivational techniques like creating opportunities & others (group mean for yes= 4.03 and for no=4.35,t= -1.02,df=53, and sig 0.312>0.05), be

good/paternalistic techniques like providing good education & others (group $\overline{X}$ for yes= 4.13 and for no=4.09, t= 0.13,df=53, and sig 0.901>0.05), Instructor's expectation of achieving the goal(group $\overline{X}$ for yes= 3.94 and for no=4.26,t= -1.11,df=53, and sig 0.272>0.05), and goal setting to achieve higher performance(group $\overline{X}$ for yes= 3.75 and for no=4.17, t= -1.49,df=53, and sig 0.142>0.05);Non-financial inactivates like promotion & others(group $\overline{X}$ for yes= 3.84 and for no=3.61, t= 0.65,df=53, and sig 0.52>0.05), financial incentives like fair salaries, medical reimbursement,& others (group $\overline{X}$ for yes= 3.69 and for no=3.91,t= -0.62,df=53, and sig 0.54>0.05),fulfilling physiological needs , and other needs continuously(group $\overline{X}$ for yes= 3.59 and for no=3.91,t= -0.79,df=53, and sig 0.428>0.05) and providing an individual with extrinsic reward to perform (group $\overline{X}$ for yes= 3.63 and for no=3.48, t= 0.49,df=53, and sig 0.62>0.05).

Table 19: Binary Logistic Regression of motivational strategies

Predictor Variables	B	S.E.	Wald	df	Sig.	Exp(B)
Enforcement by University officials like wage cut if they didn't work	-.239	.473	.256	1	.613	.787
Rewarding & penalizing instructors based on degree of performance	.067	.415	.026	1	.872	1.069
Effort-reward-effort technique like rewarding only money	1.155	.649	3.166	1	.075	3.176
Carrot(e.g incentives) & stick(e.g demotion) techniques	.196	.463	.179	1	.673	1.216
Be good/paternalistic techniques like providing good education & others	.207	.507	.167	1	.683	1.231
Negative motivational techniques like coercion to work	.822	.557	2.174	1	.140	2.274
Job enrichment motivational techniques like creating opportunities & others	.012	.665	.000	1	.986	1.012
Focusing on trust& intimacy among instructors &officials	.408	.523	.608	1	.436	1.503
Fulfilling physiological needs , and other needs continuously	.009	.431	.000	1	.983	1.009
What motivates instructors is situation	-1.157	.533	4.714	1	.030	.315
Instructor's expectation of achieving the goal	-.060	.567	.011	1	.915	.942
Instructor's having necessary knowledge, abilities, & skills to do research	-.198	.954	.043	1	.836	.821
Degree of equity that instructors perceive in their work situation	-1.317	.743	3.148	1	.076	.268
Providing an individual with extrinsic reward to perform	-.450	.629	.511	1	.475	.638
Goal setting to achieve higher performance	.162	.687	.056	1	.813	1.176
Financial incentives like fair salaries, medical reimbursement,& others	-.427	.541	.622	1	.430	.653
Non-financial inactivates like promotion & others	.234	.366	.408	1	.523	1.264
Noxious stimuli like fine/penalty and others	-.116	.608	.037	1	.848	.890
Punishment like suspension without pay	-1.134	.835	1.844	1	.175	.322
Removing previous rewards	.708	.570	1.543	1	.214	2.031
Constant	6.529	3.88	2.831	1	.092	684.533

The above Table 19 with binary logistic regression shows that independent variables of hindering factors with (Sig < 0.05 and corresponding expected beta value/ Exp(B)/ called order ratio) reveals the motivating strategy(s) with significant contribution to affect the participation of sample instructor-respondents in educational research practices. Accordingly, as depicted in the above table, predictor variable what motivates instructors is a situation with (Sig=0.03< 0.05 and Exp(B)=.315 has significant motivational contribution to the participation of instructors to do educational research. Suggestions made through open-ended questions to motivate higher education instructors to do research include:

- **Human potential development motivational strategies:** providing knowledge on education and educational research, creating awareness and interest, instructors academic promotion; providing instructors about how to conduct researches there by their knowledge of conducting research upgraded, available research work and respective career promotion, recognition, encouragement, education, academic freedom, job satisfaction, job security, and professional commitment ;
- **Material support motivational strategies:** Availing research facilities; and fulfilling basic needs like houses;
- **Financial support motivational strategies:** Providing reward/incentives like research budget; Praising of excellent researchers; there should be appropriate funding to conduct research; financial awards; rewarding not penalizing; allocation of enough research budget; and
- **Institutional support & good working environment creation motivational strategies:** suggestions made were: Improving working condition like teaching and learning environment, publication of research articles, best researchers should be presented for other academic staff by the researchers in the University so that instructors will be motivated; adjusting conducive atmosphere or circumstances, experience sharing among instructors, improved working environment, equity of instructors as with their profession, good interrelationship with the management, respect from officials side, good working environment, reasonable work load, commitment, enforcement mechanisms motivational strategies, and there must be rules and regulations that enforce instructors.

  This implies that, had these motivation strategies were unplaced, instructors would have been actively involved to do educational research, thereby, contributed to the quality of education in general and answers various social problems of the country.

4.2. ANALYSIS AND INTERPRETATION OF DATA

The main purposes of this study were to investigate the status of ERP of Ambo University instructors, hindering factors, and motivational strategies to trigger AU instructors to do educational research which were analyzed and interpretated respectively as follows:

4.2.1 Status of Educational Research Practices: comprises the discussions of research and AU mission statements, instructors rating of AU's status of ERP, Colleges and departments in favor of ERP, instructors preferences of educational research typologies and methodologies, and the strict follow up of the basic elements of educational research processes respectively.

4.2.1.1 Status of research and mission statement of AU: Out of the total 60 respondents of this study, 46(76.7%) of the sample instructors reported that Ambo University made research part of its mission statement. This implies that Ambo University has made its research and mission statement clear to the majority of sample instructors, thereby, ensures their active involvement to realize what has been stated in (AU, 2011; TGE, 1994; and FDRE, Pro. #, 621/2009) pertinent to the role of higher education conducting educational research.

4.2.1.2 Current status of ERP in AU: - Concerning the status of ERP in Ethiopia in general and in HEIs of Ethiopia in particular, various studies was conducted. For examples, Amare (2000) and Teshome (2004) in Ethiopian context, Derebessa (2004) in the case of AAU, Asrat (2007) in the case of AU, Berihanu (2009) in the case of Tigray College of Teachers' Education, Mekuria (2008) in the case of Jimma University, Kiflom (2009) in the case of Mekelle University, and Melese (2010) in the case of Bahir Dar University where all found that the status of ERP in HEIs of Ethiopia were found at infant stage and low in status. In the case of AU, the present study shows that the majority of the respondents (34/56.7%) rated it as medium status. The interview made with I_1, I_2, I_3, and I_4 also shows medium status.

4.2.1.3 Status of instructors level of agreement, extent & reasons of involvement:- Sample instructors' were asked about their level of agreement to HEIs instructors role of involvement to ERP and responded that 55(91.7%) agreed. Despite majority agreement, only 32(58.2%) of them were currently participating in educational research. The main reasons stated by respondents that was substantiated by other scholars for the instructors involvement to do research were to find the solution for the problem facing (Kothari, 2003), to bring about new findings in this sphere of life

(Teshome, 2004 and UNESCO, 2005), to make Universities the center of science and technology, to improve quality of education (Derebssa, 2004), and to improve the teaching –learning process (Berlin, 1996 & Verma & Beard, 1981). Also, to Tesheme (2004), "the research works are in many cases undertaken for scholarly prestige, catering for individual and donor interests and lack the required capacity in solving institutional and national or social problems"(p.7). However, of the total respondents, the remaining 23(41.8%) of them do not participate. This low status involvement of the study was also supported by Teshome (2004) who states that although there are few institutions involved in relevant research, generally many of the higher education institutions in Ethiopia are not actively engaged in research activities where the case of AU was similar.

4.2.1.4 Colleges and departments in favor of ERP:-In terms of the college/institute 1st CSSH (N=15), 2nd CNCS (N=11), and 3rd IEPS (N=5) were in favor of ERP, however, in terms of the departments 1st English language and literature (N=8), 2nd physics (N=6), and 3rd Afaan Oromo & literature (N=5) were highly in favor of ERP. The other departments with the frequency of (N=2 each) like the department of Mathematics, EDPM,AECD, and Sport science were found at the medium level as compared to the other departments in terms of participation. The least (only N=1 each) frequented number of sample instructors were from the department of Civics and Ethical Education, Sociology & Social work, and Psychology.

4.2.1.5 Status of instructors' preference and application of educational research typologies, methodologies, and basic elements of educational research processes:-Comprise items related to the preferences and application of educational research typologies, educational research methodologies, and the selection and application of the basic elements of educational research processes:

Status of instructors' preference and application of educational research typologies: One of the aims of this study was to investigate and describe AU instructors' preferences and application of educational research typologies and found that 34(27.6%) of them mostly preferred action research over the other typologies of educational research that action research is concerned with the immediate application of scientific method/results to real life or specific situation than developing theory that is normally undertaken by practitioners and practitioners attempt to study their problems scientifically in order to guide, correct and evaluate their decisions and actions (IGNU2, 2005 and Verma and Beard, 1981).It means that educational research in general and action research in particular is the study of behavioral patterns related to learning in schools and other educational

programs that is primarily concerned with strategies that are used within the classroom by teachers and larger policies employed by an educational institution. Thus, the high preferences of the AU instructors to this type of educational research typology may or may not arise from this fact.

As defined by Verma and Beard (1981) and Trochim (2005) descriptive research the second mostly preferred (N=22/17.9%) type of educational research typologies is concerned with the nature and degree of present situation like survey of the physical condition of school buildings in order to establish a descriptive profile of the facilities that exist in the University. The case of the preferences of the AU instructors may stem out of this. Case study, the thirdly (N=16/13%) preferred type of educational research is about in-depth than breadth emphasis on a single individual or situation (Verma & Beard, 1981).Experimental research (N=14/11.4%) was the forth mostly preferred type of educational research by AU instructors. It is a way of dealing with the problem of cause and effect (Verma & Beard, 1981; IGNU2, 2005; and Kaufman and Kaufman, 2005). Such type of educational research typology helps instructors to study for example, about the effectiveness of two new textbooks using random assignments of teachers and students control and experimental groups. Other educational research typology like correlational research was preferred fifth by (N=13/10.6%) instructors of AU. It deals with the relationship between two or variables (Kaufman and Kaufman, 2005; Cohen,et al., 2000; and Trochim, 2005). Historical research which generates critical descriptions of events that have occurred in the past (Cohen,et al., 2000; Kothari, 2003; and Verma & Beard, 1981) was the other educational research typology preferred by the AU instructors in the sixth stage. Cross-sectional studies (N=5/4.1%); Ex-post facto research (N=3/2.4%); and naturalistic research & longitudinal studies (each N=1/0.8%) were other preferred ones.

Status of Instructors' preference and application of educational research methodologies: All researches are based on philosophical assumptions/ way of perceiving a reality/ that guide and direct human's thinking and actions (Abiy,et al., 2009; Mertnes, 2009; and Bogdan and Biklen, 1992).Hence, good researchers are aware of their philosophical assumptions and ,thereby, decided their methods of data collection, data analysis techniques and others rather than unsystematic pilling up of research accounts.

In view of this , AU instructors were asked to respond to the type of educational research methodology they employed in their involvement to do research and found that out of 32(58.2%) who were involved in to the educational research work, 19(59.4%) preferred and applied mixed

methods educational research methodology over the single use of quantitative or qualitative educational research methodology where such type of educational research methodology combines or associates both qualitative and quantitative forms of research (Trochim, 2005 and Creswell, 2009).

Also, other 6(18.8%) of the total educational research participants in Ambo University approached their study qualitatively of which 3(30%) approached their study inductively, 3(30%) focused in their participants view, 2(20%) developed concept map of their study, 2(20%) undertook holistic analysis of their qualitative data (Abiy, et al.,2009; Creswell, 2007 as cited in Creswell, 2009; and Holliday, 2002; Bogdan & Biklen,1992; Trochim, 2005; and Creswell, 2009).

Quantitative research is the methodological principle of positivism that involves the process of collecting, analyzing, interpretation, and writing the results of the study based on the measurement of quantity or amount (Abiy, et al., 2009).In short, according to Trochim (2005),quantitative research approach follows deductive or top-down reasoning from Theory →hypothesis →observation→confirmation. In this case, Ambo University sample instructors' preference to the quantitative educational research methodology (N=4/12.5%) was shown in Table 13, too where 3(23.1%) defined their dependent variable clearly, 2(15.4%) made causal explanations to their variables, and 2 (15.4%) made prediction of the study based on their quantitative data.

Status of instructors' preference and application of basic elements of educational processes: It was found that (N=14) respondents were shown their level of agreement and (N=17) were shown their level of disagreement that they don't strictly followed the basic elements of educational research processes in their previous studies. This implies that most of the AU instructors have not strictly followed the basic elements of the educational research processes. Yet more, though they provided some appropriate practical examples, there exist confusions and misunderstandings of some respondents with their practical examples. Below were the detail discussions of the basic elements of the educational research processes based on (Annex 7 research process in flow chart, Kothari, 2003):

Choosing research topic/problem based on <u>the criterion</u> in specific way: According to various scholars, a research problem is some difficulty which a researcher experiences in the context of either a theoretical or practical situation and wants to obtain a solution (IGNU2, 2005; UNSECO,

2005; Trochim, 2005; Kothari , 2003; and Creswell, 2009).It is the first basic elements of the research processes to be identified in advance unambiguously and in a systematic manner, thereby, enables quantitative, qualitative or mixed methods researcher (s) determine about other topical issues in research processes like data collection tool, research design, sampling design, data analysis techniques and others(Santrock ,2004 ;Miles & Huberman, 1994;and Kothari ,2003).

In view of the indispensability of choosing a research topic/problem based on set criteria in a specific way, 22(68.8%) sample instructors have chosen their study topic based on the criterion in specific way. However, 2(6.3%) responded "No" and 8(25%) responded "Not applicable". The selection criteria listed by respondents includes currency of the issue/problem under investigation, researchability of the topic or not, specific and clarity of the topic, intensity of the problem, newness of the topic, interest of the researcher, priority of the problem, experience and personal observation, and manageability of the topic as appropriate as viewed in the works of Kothari (2003) & Abiy,atel.,(2009) on this step.

Specifying the research title that contains variables: Of total sample instructors, 16(50%) responded "Yes", 8(25%) "No", and 8(25%) "Not applicable" with respect to the specification of the research title that contains variables. Based on the data collected though open-ended questionnaire, some of the practical examples cited includes students interest/attitude towards mathematical proofs (Maths department), opportunities and challenges in the practices of BPR in educational offices, the case of East Shoa zone, and relationship between motivational orientation and science achievement. This implies that majority of the sample instructor-respondents were specified their research title that contains variables and the practical examples given ms sound. However, another question was to the response of 8(25%) respondents who responded and "No" and the step was not applicable in their previous study. The reasons are many but one is how a researcher without research title that doesn't contain a variable could end up questioning.

Collecting needed information by reviewing the related literatures: A literature review is a description of the literature relevant to a particular field or topic(Abiy, et al., 2009).It helps to determine whether the topic is worth studying and provides a framework for establishing the importance of the study as well as a benchmark for comparing the results with other findings (Creswell, 2009.Furthermore, it helps to assess the feasibility of the research, help to formulate an

effective methodology, help to develop specific research questions, enable to design realistic research design ,and etc (IGNU2,2005). In this regards, the total of 24(75%) responded "Yes" that they collected the needed information by reviewing the related literatures. The major purposes of their review as explained by the respondents were to give strength about the problems and knowing the overall idea about the problem, to know previous outlooks, to know more about the title, to lay ground for the study, to construct data gathering tools, to get relevant information, to know the theory, to know the previous findings, to relate between previous studies and current search.

*Setting research question unambiguously: 17(53.*1%) of the sample instructors responded "Yes", 7(21.9%) responded "No", and 8(25%) responded "Not applicable" concerning the setting of their research question unambiguously. Such research questions were exemplified by the respondents includes why students dislike mathematical proofs? Do they know its importance? Do students' learn cooperatively in small group work activities?, How do they view the purpose of the test? How do they view the content of the test?, What do English Language teachers know about testing?, To what extent do resources contribute to the effectiveness of BPR in East Shoa education offices, and What are the main attachment patterns observed in the area?

Hypothesizing the study derived from the research questions in accurate form: has been a controversial stage of the basic elements of the educational research processes to be employed or not in qualitative research methodology like the quantitative one. In this study, out of the total, 11(34.8%) responded "Yes", 8(25%) responded "No", and 13(40.6%) responded "Not applicable" to hypothesize. But it may be well remembered that occasionally researchers may encounter a problem where they do not need working hypothesis. That is, as a general rule, specification of the working hypothesis is another basic step of the research process in most social research problems (Abiy,et al.,2009) both in quantitative and qualitative research methodologies, because according to Verma and Beard (1993) cited in Holliday (2002), hypothesis are hunches that the researcher has about the existence of relationship between variables. Quantitative hypotheses are predictions the researcher makes about the expected relationships among variables (Creswell, 2009 & Trochim, 2009).This essential nature of hypotheses does not have to be restricted to the controlled world of quantitative research. In qualitative research, too, there can be relationships which the researcher sets out to investigate in a systematic, though not quantifiable way (Holliday, 2002).

Application of appropriate research design(s): Conceptually, Kothari(2003) defined research design as decisions regarding what the study is about , why is the study being made , where will the study be carried out ,what type of data is required, where can the required data be found, what period of time will the study include, what will be the sample design, what techniques of data collection will be used, how will the data be analyzed ,and in what style will the report be prepared. In view of this step, the majority of the sample instructor-respondents (N=21/65.6%) have applied appropriate research designs in their studies. However, 2(6.3%) responded "No" and the other 9(28.1%) responded" Not applicable". Some of the practical examples includes descriptive (from English, R26 & R27 and EDPM (R43) and Correlation (Psychology, R52 & R54, both quantitative and qualitative form/mixed type used (Psychology,R53 and R55.This implies that , though, the examples given were appropriate, as compared to the multiple types of quantitative, qualitative, and mixed methods research designs. More practical examples could have been given (Abiy, et al., 2009; Cresswell, 2009; IGNU2, 2005; UNESCO, 2005; Sinha, 2008; and Trochim, 2005 for various types of quantitative research designs) and (Bogdan & Biklen ,1992; Trochim,2005; Cresswell, 2009; and Merriam,1988 cited in Holliday, 2002") for qualitative research designs.

Determination of appropriate sampling technique(s): According to Kothari (2003) a sample design is a definite plan for obtaining a sample from a given population. The purpose of sampling as discussed by Sinha(2008) comes to the researcher's aid of enabling him to study a portion of the population rather than the entire population. With this rationale, 22(6838%) of sample instructors of AU have responded that they determined appropriate sampling technique(s) in their previous studies. Whereas the other 3(9.4%) and 7(21.9%) responded "No" and "Not applicable" respectively. They mentioned some examples as purposive sampling, simple random sampling, interviews, questionnaires, observation (from English, R21 and Afaan Oromoo, R32 departments), probability sampling technique (Afaan Oromoo, R33), availability sampling, qota sampling, non-probability sampling, availability sampling (EDPM, R48), Lottery system sampling. As depicted in the examples, there was a mixing up of sampling designs with research data collection methods. For examples, the examples cited by respondents (from English department R21 and from Afaan Oromo, R32) that they were cited interviews, questionnaires, and observation as sampling designs that are data collection tools but not sampling techniques.

Determination of sample size based on sample size determination technique(s): The total of 17(53.1%) responded "Yes", 5(15.6%) "No", and 10(31.3%) "Not applicable" concerning determination of sample size and cited lottery type (from Maths and Physics departments), random sampling (from English department with code R 21), number of population, and 30% rule that all are neither of the sample size determination techniques identified by various scholars like *minimum requirement (n=30)* (Cohen, et al, 2005 and Abiy, eta.,2009), *representativeness* that refers to obtaining the minimum sample size that will accurately represent the population being targeted (Cohen, et al.,2005 and Sinha,2008), and where simple random sampling is used, the sample size needed to reflect the population value of a particular variable depends both on the size of the population and the amount of heterogeneity in the population (Bailey, 1978).

Sample size might also be constrained by cost— in terms of time, money, stress, administrative support, the number of researchers, and resources (Cohen,et al,2005), Sample size is also determined to some extent by the style of the research: A survey style--large sample, (Cohen, et al, 2005), Correlational research--no fewer than 30 cases, Causal- comparative and experimental methodologies-- no fewer than fifteen cases, and that survey research should have no fewer than 100 cases in each major subgroup and twenty to fifty in each minor subgroup(Borg and Gall,1979),*Confidence level and sampling error:* with confidence levels of 95 % and 99 % and sampling errors of 5 % and 1 % respectively (Cohen,et al,2005), and *Large sample size*: Borg and Gall (1979) suggest that as a general rule, sample sizes should be large where there are many variables, and Oppenheim (1992) states the nature of the scales to be used also exerts an influence on the sample size: nominal data the sample sizes may well have to be larger than for interval and ratio data.

Selection of dependable data collection tools (methods): As indicated in Table 13, 20(62.5%) sample instructors of AU responded "Yes" that majority of the them have selected their data collection tools(methods),5(15.6%) responded "No", and 7(21.9%) responded "Not applicable" concerning the selection of the dependable data collection tools(methods) and gave questionnaire, tests (pre & post), class room discussion, interview, secondary data(document study), observation, Focus Group Discussion(FGD), data analysis (Afaan Oromo,R33), discourse analysis, descriptive survey, descriptive statistics, and descriptive statements (AE, R51) as their practical examples. This implies that there was a misunderstanding of the selection and application of the data collection tools (e.g.

descriptive statistics and data analysis cited by sample instructors from Afaan Oromo department (R33) , tests (pre & post) cited as an example)with some sample instructors as compared to the quantitative data collection tools (Kothari, 2003; Abiy,et al., 2009; Sinha, 2008; Trochim, 2005; Wilson and McLean,1994 cited in Cohen,et al.,2005; Oppenheim,1992; and Robson, 1978 cited in Abiy,eatl.,2009) and qualitative data collection tools (Kothari, 2003; IGNU3, 2005; Morrison, 1993; Abiy, et al., 2009, Trochim, 2005; Bogdan & Biklen, 1992; and Creswell, 2009).

Validation of research instruments using appropriate validation techniques: Validity is the degree to which a survey instrument assesses what it is supposed to measure (IGNU2, 2005; Creswell, 2009; and UNESCO, 2005).In this study ,the majority of the sample instructor-respondents were validated their research instruments using appropriate validation techniques (N=13/40.6%), whereas, 9(28.1%) didn't and for 10(31.3%) of them such steps of the basic elements of the educational research process was "Not applicable". The practical examples of their validity techniques given were correlation(from Mathematics), correlating using rating scales (from Physics), triangulation (from English, R25), pilot testing, mean, mode, chi-square methods, percentage methods(from Sociology, R41), showing the tools to experts, using different standardized scales, evaluating appropriateness of the items (from Psychology R53), check list, observing the actual class (from Sport science, R60). Thus, as compared to the various validity strategies of quantitative (Kothari, 2003; Trochim, 2005; IGNU2, 2005; UNESCO, 2005; and IGNU3, 2005) and qualitative (Amare, 2007; Creswell, 2009; Cohen, et al., 2005; IGNU3, 2005; and Lincoln & Guba, 1985) there exist misunderstandings and confusions with the selection and application of the validity strategies with some AU instructors. For example, mean, mode, chi-square methods, percentage methods (from Sociology, R41) and check list, observing the actual class (from Sport science, R60) given as their practical examples of used validity techniques were suffice to mention.

Checking the reliability of research instruments using appropriate reliability technique(s): sample instructors of 11(34.4%) responded "Yes", 10(31.3%) responded "No", 11(34.4%) responded "Not applicable" with respect to checking the reliability of research instruments using appropriate reliability techniques. The practical examples they cited includes giving to colleague, pilot testing, calculating the coefficient of alpha (from Pschology,R52),test-retest methods, inter-raters reliability (from Psychology, R53),item- total correlation (from Psychology, R55), and t-test (from Sport science, R60).From this, though, 11(34.4%) checked the reliability of their instruments, except those

samples from Psychology department, couldn't gave their appropriate practical examples requested through the open-ended item.

For example, the practical example given from Sport science department by R55 was inappropriate as it is inferential statistics for data analysis but not reliability instrument as viewed by list of quantitative reliability techniques identified (Amare, 2007; Trochim, 2005; IGNU2, 2005; Kothari, 2005; and Cohen, et al., 2005) and qualitative reliability techniques (Bogdan and Biklen, 1992; Kvale, 1996; Creswell, 2009; and Berreman, 1966 cited in IGNU3, 2005). The use of the qualitative reliability that is, in qualitative research, reliability can be regarded as a fit between what researchers record as data and what actually occurs in the natural setting that is being researched, i.e. a degree of accuracy and comprehensiveness of coverage (Bogdan and Biklen, 1992:48). Qualitative reliability indicates that a particular approach is consistent across different researchers and different projects (Creswell, 2009).

Selecting appropriate data analysis technique(s): After the data have been collected, the researcher turns to the task of processing and analyzing the collected data. That is, according to IGNU2 (2005), once the data have been collected, the task is to reduce the mass of data obtained to a form suitable for analysis. In this case, 21(65.6%) responded "Yes", 1(3.1%) responded "No", 10(31.3%) responded "Not applicable" and gave practical examples like t-test, qualitative & quantitative (e. g percentages) data analysis techniques, ANOV, t-test, chi-squares (EDPM, R43), Alpha Cronbach's estimate(EDPM, R 45), independent t-test, multiple regression, Pearson product moment correlation (Psychology. R52 and R53).

To sum up the other basic elements of the educational research processes such as answering basic questions(N=23/71.9%,Yes;N= 3/9.4%, No, and N=6/18.8%,Not applicable), testing of the hypothesis(N=11/34.4%,Yes;N= 7/21.9%, No, and N=14/43.8%,Not applicable), generalization of the study(N=13/40.6%,Yes;N= 9/28.1%, No, and N=10/31.3%,Not applicable), contextualization of the study(N=14/43.8%,Yes;N= 9/28.1%, No, and N=9/28.1%,Not applicable), presentation of clear research report(N=17/53.1%,Yes;N= 3/9.4%, No, and N=12/37.5%,Not applicable), issuing of recommendations(N=20/62.5%,Yes;N= 3/9.4%, No, and N=9/28.1%,Not applicable); and dissemination of the research results using various mechanisms(N=9/28.1%,Yes;N= 14/43.8%, No, and N=9/28.1%, Not applicable) were replied by the respondents.

4.2.2 Major Determinant Hindering Factors: This part of the study comprises the list of major determinant hindering factors and differences and power of their influences in affecting the participation of AU instructors to do educational research that were presented as follows:

4.2.2.1 List of the major determinant hindering factors:- Multiple causal determinant hindering factors have been affecting the involvement of HEI instructors to do research. The case of AU was not exceptional that multiple causal factors have been affected sample instructor-respondents involvement to do educational research that includes the following lists of hindering factors:

Lack/inadequate research budget/Fund (economic factor): Except in the case of Mekele University (Kiflom, 2009), as identified by various scholars like Teshome (2004); Adane (2001) in Dani'el (2004); Kate(2004); Derebssa (2004); Asrat (2007); and Melese (2010) lack of earmarked research budget and/or research fund has an impact on the role of the higher education instructors to discharge one of their basic roles-undertaking educational research. The current study also shown that it has affected instructors to do research (SA to A:n=44, $\overline{X}$ =3.95 , s=1.06 ,D to SD: n=8).

Lack of dissemination channels & publication outlets: In contrary to Kifloms (2009) study in the case of Mekele University where 82.6% respondents agreed the existence of publication outlets, various educational researchers (Derbssa, 2004 in the case of AAU; Melese, 2010 in the case of Gonder University; Asrta, 2007 in the case of Haramaya University; and Birhanu, 2009 in the case of College of Instructors' Education in Tigray Region) found that lack of research publication and dissemination mechanisms have contributed to the low involvement of instructors in educational research in their respective universities. The present study in the case of Ambo University shows that lack of dissemination channels like workshops was found as a major determinant hindering factor to the involvement of the instructors(SA to A:n=47, $\overline{X}$ =3.88 , s=1.04 ,D to SD: n=10). Lack of publication outlets like scholarly journals (SA to A/n=43, $\overline{X}$ =3.86 , s=1.03 ,D to SD: n=8),too.

Interest to conduct educational research (human factor): Contrary to Asrat's (2007) study of the case of Haramaya University where he found that instructors in the Education Faculty lacked real interest in educational research, the study made in Bahir Dar University by Amera (2005) shows there exist positive correlation (r=0.65) between teacher's interest in educational research and educational research practices and instructors with positive interest in educational research have good participation in educational research practices. In the case of Ambo University, instructors' interest to do educational research was also found as the major determinant hindering factor to their involvement (SA to A/n=42, $\overline{X}$ =3.63 , s=1.29 ,D to SD: n=14).

Lack of research infrastructure and equipment (material factor): Research infrastructure, especially related to material facilities was another determinant factor in undertaking educational research (Derebssa, 2004; Asrat, 007; and Kiflom, 2009). The factor was found as another major determinant hindering factor in Ambo University (SA to A/n=38, $\overline{X}$ =3.56 , s=1.42 ,D to SD: n=16) and were suggested by respondents that availing the necessary research materials that are necessary for conducting research when fulfilled could overcome such type of major determinant hindering factor in the University.

Lack of work motivation (motivational factor): Lack of various motivational strategies such as lack of incentives (Seyoum, 1998;Kiflom, 2009;Waktole, 2002);lack of opportunities to participate in seminars and workshops or in-service training on research (Seyoum,1998; Waktole, 2002; Kiflom, 2009;and Melese, 2010) ; lack of recognition or support from stakeholders or top management (Waktole, 2002; & Kiflom, 2009);lack of financial support/research funding (Amera, 2004 & Waktole, 2002);unattractive or low scale salary (Derebssa, 2004 and Waktole, 2002) were found impacted on the role of higher education instructors in conducting research. The case of Ambo University instructors was not exceptional that lack of work motivation was evidenced, too (SA to A:n=38, $\overline{X}$ =3.52 , s=1.37 ,D to SD: n=14) that t instructors were unmotivated to do research. According to the interview results"…encouraging instructors through different workshops, provision of trainings, recognition of the value of research by authorities, giving high attention to research for promotion, institutionalizing regulations that enforce researchers, salary increment and job security…"(I_2) were suggested as potential means to overcome the factor to the opposite(for details of other applicable motivational strategies section 5.3).

Work load/shortage of time like teaching load & others (institutional factor): In contrary to Kiflom (2009) and Melese (2010) instructors' work load was also identified as a major deterring factor to higher education instructors' involvement in educational research practices by various scholars (Derebssa, 2004 and Asrat,2007). In the case of Ambo University, work load/shortage of time like teaching load and others were also affected the involvement of instructors to do research(SA to A:n=34, $\overline{X}$ =3.42 , s=1.27 ,D to SD: n=17) and suggested that work load should be minimized by hiring additional teachers.

Problem of personnel capacity/ research culture (Knowledge, attitude, and skill)(human factor): HEI instructors inappropriate use of statistics and uncritical adoptions of the opinions in the review

of literature section (Amare, 2000), lack of knowledge in educational research (Amera, 2004), lack of basic research skills/personal weaknesses to conduct research (Waktole, 2002; Derebssa, 2004; Asrtat, 2007; and Kiflom, 2009) shows that problem of personnel capacity or knowledge, attitude, and skill to conduct educational research has been identified as a major impediment to the research undertaking by higher education instructors. In the case of Ambo University, problem of personnel capacity with instructors to do research was found as determinant hindering factor that was evidenced by (SA to A: n=33, $\overline{X}$ =3.41 , s=1.34 ,D to SD: n=15).

Perception towards educational research (human factor): The way higher education instructors' perceive educational research plays either positive or negative determinant role in their involvement in educational research (Amera, 2005 and Melese, 2010). In the case of AU, instructors perception towards research (SA to A: n=35, $\overline{X}$ =3.40 , s=1.22 ,D to SD: n=15) was found as a major determinant hindering factor that were affected their participation to educational research but suggested to be overcome by creating awareness on educational research through different short or long term training in country or outside the country, encouraging the staff to do research ,creating conducive environment for research work, and developing organizational commitment.

Poor organizational commitment (motivational factor): Mowday, Porter, and Steer (1982) commitment as attachment and loyalty. Birhanu (2009) identified teacher- related variables and found that teacher's lack of competence and commitment in the college do not involved in educational research works. Poor organizational commitment of Ambo University (SA to A: n=31, $\overline{X}$ =3.40 , s=1.22 ,D to SD: n=16) has affected their participation in educational research. However, suggested to be impacted as the other major determinant hindering factor and suggested by sample respondents to be overcome by creation of well-organized and transparent environment, well-organized and development oriented research center, allocation of enough budget, and by fulfilling necessary condition such as transportation to the researchers.

Low job satisfaction (motivational factor): According to Singh and Pandey (2009) and Locke and Lathan (1990) job satisfaction is a set of favorable or unfavorable feeling with which the employees view their work. The major effects of low job satisfaction as stated by Singh and Pandey (2009 are *high turnover of employees, high absenteeism, tardiness* and *low employee performance:* high performance contributes to high job satisfaction. In the case of AU, low job satisfaction (SA to A:

n=33, $\overline{X}$ =3.38 , s=1.37 ,D to SD: n=17) was found as the major determinant hindering factor that affected the participation of instructors to do educational research.

Field of specialization(human factor): Instructors specialized in education were found to be in a better position to do educational research and language, social science, and natural science stream instructors were almost similar in their involvement in educational research in Bahir Dar University (Amera, 2005). In the case of AU, field of specialization (SA to A: n=20, $\overline{X}$ =3.30 , s=1.32 ,D to SD: n=15) was also identified as a major determinant hindering factor that was affected instructors participation to educational research.

Years of teaching experience (human factor): as a factor of hindering instructors to do research was controversial. For example instructors with longer years of teaching experience are less engaged in educational research practice than less experienced instructors (Amera, 2005).In the case of Instructors of the College of Education in Tigray region, the study conducted by Birhanu (2009) shows a contrary result of strong positive correlation (r=0.76) and statistically significant relationship between instructors' years of experience and their involvement in educational research activities. In the case of AU, years of teaching experience in higher education (SA to A: n=29, $\overline{X}$ =3.27 , s=1.27 ,D to SD: n=17) found as another determinant hindering factor, too.

Educational Level (human factor): Asrat (2007) revealed the existence of similar patterns/feelings among the study participate that no relationship exist between the level of qualification and the level of involvement in research activity in Haramaya University. Whereas, another study by Berihanu (2009) found moderate and statistically significant correlation (r=0.47) between instructors' qualification/educational level and their involvement in educational research practices. In the case of AU, educational level (SA to A: n=24, $\overline{X}$ =2.88 , s=1.39 ,D to SD: n=25) was found as not significantly affected their participation to educational research and besides, *sex* (SA to A: n=9, $\overline{X}$ =1.73 , s=1.22 ,D to SD: n=46) was found as insignificant hindering factor, too.

4.2.2.2 Differences and power of influences among determinant hindering factors: Concerning the differences among list of these major determinant hindering factors in their power of influence, binary logistic regression result (Table 15) shows that independent variables of hindering factors such as perception towards educational research (Sig=0.049< 0.05 and Exp(B)= 7.670) , interest towards educational research with (Sig=0.015< 0.05 and Exp(B)=13.97) and work load/shortage of

time like teaching and others with (Sig=0.042 < 0.05 and Exp(B)=6.29) have significant hindering contribution to the participation of instructors to do educational research. That is, when sample instructor-respondents and interest towards educational research increased and their work load/shortage of time like teaching load decreased, their participation in educational research works increased. In the contrary, other independent variables with Exp (B) < 1 have inverse (negative) relationship with dependent variable (participation in educational research).

4.2.3 Major Determinant Motivational Factors: Comprises instructors level of agreement concerning AU officials role of motivating their instructors, instructors' self-reported level of job satisfaction and job dissatisfaction, major list of applicable motivational strategies in AU, and differences and power of influences among major determinant motivational strategies to do educational research and presented as follows respectively:

4.2.3.1 Instructors' level of agreement on AU officials' role of motivating their instructors:- Motivation is a process of stimulating people to action to accomplish desired goals. In response to Ambo University officials' role of motivating instructors to do educational research, the total of 48(80%) sample instructors with a mean value of 1.27 and standard deviation of 0.58 agreed that they have to do it. Based on the results of the data collected though open-ended ended question the reasons include:

1. Officials are central role players in creating awareness, to allocate research budget and to include research work in the general plan.
2. Because if officials motivate instructors to conduct research, it helps the instructors to think about it regularly and it brings about the recognition of the work of the instructors.
3. Because research solves the problems of education regarding quality and other issues and recently, they gave chance to train on research.
4. Because the improvement of the quality education, it is through them that everything is undertaken.
5. Unless the support of the University officials is given, it is difficult to conduct educational research.
6. They have the authority to facilitate and support the research activity in the campus and if they do not support, instructors might be demotivated to do so.

4.2.3.2 Instructors' self-reported level of job satisfaction and job dissatisfaction:-Discussions on instructors' self-reported level of job satisfaction_was based on theory of Frederick Herzberg's 6intrinsic factors theory of motivation. These list of 6 intrinsic-factors of motivation (Silver,1983; Anbuvelan,2008;Singh and Pandey,2009; and Rao,2010) ranked by sample instructors as 1st responsibility($\overline{X}$ = 2.11/lowest mean value), 2nd opportunity for growth($\overline{X}$ = 3.3),3rd achievement($\overline{X}$ = 3.33), 4th work itself($\overline{X}$ = 3.60),5th Advancement($\overline{X}$ = 3.87), and 6th Recognition($\overline{X}$ = 3.87/highest mean value) that the presence of these intrinsic factors in the present order of their significances to them yield feeling of satisfaction to do educational research and any decrease in these factors will not affect their level of satisfaction.

In the contrary, instructors' self-reported level of job dissatisfaction was discussed_based on theory of Frederick Herzberg's 9 extrinsic factor theory of motivation. These 9 extrinsic factors of job dissatisfaction (Silver,1983; Anbuvelan,2008;Singh and Pandey,2009; and Rao,2010) ranked 1st work condition($\overline{X}$ = 3.57/smallest mean value), 2nd salary($\overline{X}$ = 3.87), 3rd organizational policy($\overline{X}$ = 4.48), 4th effects on personal life($\overline{X}$ = 4.5),5th job security($\overline{X}$ = 4.68), 6th interpersonal relationship (peer)($\overline{X}$ = 5.58),7th interpersonal relationship (subordinate)($\overline{X}$ = 6.0),8th supervision (technical)($\overline{X}$ = 6.08); and 9th Status($\overline{X}$ = 6.30 with highest mean value) were their presence does not motivate in the sense of yielding satisfaction, but their absence would result in dissatisfaction and these dissatisfiers in the order of their significances were discussed by adapting them in the context of AU.

4.2.3.3 Major lists of determinant motivation strategies:- With respect to the major lists of determinant motivating strategies (Annex 8) the sample instructor-respondents had shown their agreement that there exist various applicable motivation strategies that are pertinent to the motivation of AU instructors to effectively engage them in ERP by applying such multiple alternative motivational strategies. These motivational strategies were:

Instructors' having necessary knowledge, abilities, & skills to do research (Process theory): Lack of knowledge in educational research (Amera, 2004); lack of basic research skills/personal weaknesses to conduct research (Waktole, 2002; Derebssa, 2004; Asrtat, 2007; and Kiflom, 2009) shows that problem of personnel capacity or knowledge, attitude, and skill to conduct educational research has been identified as a major impediment to the research undertaking by higher education instructors. In

the case of Ambo University, the present study also revealed the same as evidenced by (SA to A: n=55, $\overline{X}$ =4.38 , s=0.74 ,D to SD: n=2). Porter and Lawler Model of Expectancy Theory argued performance is a function of three important factors; of these, employee must have an accurate knowledge of the requirements of the job (Rao, 2010).This implies that via acquisition of training, instructors' having necessary knowledge, abilities, & skills to do research could help the success of Ambo University instructors to do research.

Degree of equity that instructors perceive in their work situation (Process theory): is another applicable motivational strategy to enhance the effective participation of AU instructors to do educational research works. AU sample instructors responded that degree of equity that instructors perceive in their work situation could enable their involvement (Annex 8) where (SA to A: n=48, Total $\overline{X}$ =4.22, s=0.80, D to SD: n=1).In conformity to this, Adams Equity Theory of Motivation argues that a major input into job performance and satisfaction is the degree of equity (or inequity) that people perceive in their work situation (Rao, 2010).

Focusing on trust& intimacy among instructors & officials (Content theory): was another major determinant motivation strategy that enhances the involvement of instructors to do educational research. It was evidenced by sample instructors of AU (SA to A: n=47, Total $\overline{X}$ =4.22, s=1.19, D to SD: n=6). This was based on Ouchi's Theory Z characterized by trust, subtlety, and intimacy that suggested motivational strategies like large –term employment, emphasis on training, seniority-based rewards, collective decision making, emphasis on self- discipline, holistic concern for employers and their families, trust relationship among workers, and stable work environment(Anbuvelan, 2008). Thus, when applied, motivates AU instructors to enhance their effective participation in educational research works, too.

Job enrichment motivational techniques like creating opportunities & others (Content theory): is alternative strategy of motivational technique based on the theory of McGregor's Theory Y (Positive of human beings) that assumes that people view work as rest or play, exercise self –direction and self- control, can learn to accept responsibility, are not inherently lazy, and have potential that can be applied to work. So, managers should motivate them through job enrichment motivational techniques such as creating opportunities and others (Mc Gregor, 1963; Anbuvelan, 2008; and Rao, 2010). In view of this motivational strategy the sample instructors (SA to A: n=49, Total $\overline{X}$ =4.12,

s=1.19, D to SD: n=7) revealed that when applicable could motivate instructors to do their research work in Ambo University.

*Be good/paternalistic techniques like providing good education & others(content theory):*Refers to the situation where managers were kind, generous and had the interests of the employees at heart: high wages, job security, good facilities for education, health, recreation and good work environments were provided to gain loyalty and increase efficiency and productivity (Anbuvelan, 2008). In the case of AU, this motivational strategy was found also applicable as evidenced by the responses of the sample instructor-respondents where (SA to A: n=45, Total $\overline{X}$ =4.10, s=1.06, D to SD: n=5).

Instructor's expectation of achieving the goal (process theory of motivation): Victor Vroom's Expectancy theory argued that content models were inadequate explanations of the complex process of work motivation and Vroom offered an expectancy approach (expectation of achieving the goal) as an strategy of motivation (Anbuvalen, 2008 and Rao, 2010).In this regards, sample instructors of AU revealed that (SA to A:n=49,Total $\overline{X}$ =4.08 , s=1.03 ,D to SD: n=6) instructor's expectation of achieving the goal was found as applicable motivational strategy that motivates AU instructors to do educational research.

Goal setting to achieve higher performance (process theory of motivation): is based on the works of Edwin Locke's Goal setting Theory that proposed intentions to work towards a goal are a major source of work motivation. To be precise, specific goals enhance performance. The specificity of the goal itself acts as an internal stimulus that the employee is motivated to achieve higher results if he/she is allowed to participate in goal setting (Rao, 2010). This implies that AU instructors' goal setting to achieve higher performance could be used as an alternative means of motivating them (SA to A:n=44,Total $\overline{X}$ =3.93 , s=1.02 ,D to SD: n=7).

What motivates instructors is situation (content theory): based on the result of Annex 8, the total of (SA to A: n=44, Total $\overline{X}$ =3.85, s=1.22, D to SD: n=8) revealed that contingency approach to motivates instructors could applicable in the case of AU. Such contingency approach helps because sometimes all other theories fail to motivate the employees (Rao, 2010). Other scholar also argued that because human behavior is very complex and it is very difficult to predict it; there is a simple belief that it is the situation which motivates people (Singh and Pandey, 2009). The general

implication from the arguments of Rao (2010) and Singh and Pandey (2009) is that a manager can take action according to the situation. When other theories fail, he can decide how to motivate the employees. So decisions are taken as and when a situation arises because various theories suggest that there is no universal device applicable to everyone and what motivate people are situational factors. The case of AU officials' response to role of motivating their instructors based on contingency approach base on this sound theory.

Non-financial inactivates like promotion & others (reinforcement theory): based on the result of Annex 8 that the total of (SA to A: n=41, Total $\overline{X}$ =3.70, s=1.32, D to SD: n=13) responded that non-financial inactivates strategy to motivation was found applicable. That is, the role of money in motivating employee is generally decreased after the basic needs have been met. Thus, the management has to make use of non-financial strategies (Singh and Pandey, 2009 and Rao, 2010) for their employees work motivation.

Financial incentives like fair salaries, medical reimbursement,& others(reinforcement theory): Positive monetary motivation/motivators/ pull mechanism refer to the provision of incentives to attempt to influence the employees' behavior through possibility of monetary reward/ financial/pecuniary incentives (Singh and Pandey,2009 and Rao, 2010) that involve flow of money from the organization to its staff. Data collected in the case of Ambo University (Annex 8) shows that (SA to A: n=41, Total $\overline{X}$ =3.68, s=1.38, D to SD: n=13) financial incentives.

Fulfilling physiological needs and other needs continuously (Content theory): was found that when applicable effectively and continuously could motivate instructors of AU. This was evidenced by the response of the sample instructors (SA to A:n=38,Total $\overline{X}$ =3.67 , s=1.47 ,D to SD: n=17). This motivational technique was based on the works of Maslow's/theory/ Hierarchy of Needs as referred by various scholars revealed that human needs are hierarchical and when fulfilled can energize them to do work (Hanson, 1985; Bartol & Martin, 1994; Anbuvelan, 2008; Singh and Pandey, 2009 ; and Rao, 2010).

Providing an individual with extrinsic reward to perform (content theory): was based on the idea of Charms's Cognitive Evaluation Theory argues that if an individual is provided with the extrinsic rewards to perform an interesting works, it would result in the intrinsic interest in the task itself to

decline (Rao, 2010). In the case of AU, this motivation strategy has agreed by (SA to A: n=37, Total $\overline{X}$ =3.53, s=1.11, D to SD: n=11) could motivates instructors to do educational research.

In contrary to the above list of motivational strategies, the other motivational strategies such as Effort-reward-effort technique like rewarding only money(total $\overline{X}$ =2.65,s=1.07); carrot(e.g incentives) & stick(e.g demotion) techniques(total $\overline{X}$ = 2.48,s=1.55), rewarding & penalizing instructors based on degree of performance(total $\overline{X}$ = 2.65,and s=1.65), noxious stimuli like fine/penalty and others(total $\overline{X}$ = 2.03,s=1.07), negative motivational techniques like coercion to work(total $\overline{X}$ = 1.97,s=1.07), removing previous rewards(total $\overline{X}$ = 1.93,s=1.13), enforcement by University officials like wage cut if they didn't work of content theory(total $\overline{X}$ = 1.83,s=1.28) punishment like suspension without pay of reinforcement theory(total $\overline{X}$ = 1.78 (the smallest mean value) ,s=1.01) have found as de-motivators to AU instructors to do educational research as it was revealed by the respondents with total $\overline{X} < 3.5$.

4.2.3.4 Differences & power of influences among motivational strategies:-Concerning are their differences among the list of the major determinant motivating strategies among participating vs non-participating sample respondents? (T-test by comparing group mean between those who responded yes and those who responded no and independent sample t-test columns /t-value, df, and Sig/), it was found that there is no statistically significant difference (all sig were > 0.05) among sample instructor-respondents who responded "Yes" and "No" except two motivational strategies such as degree of equity that instructors perceive in their work situation and what motivates instructors is situation That is, they are equally motivated by the other major list of determinant motivation strategies in AU when adapted.

Concerning which of the major determinant motivational strategies makes significant contribution, what motivates instructors is a situation with (Sig=0.03< 0.05 and Exp(B)=.315) was found. According to Singh and Pandey (2009) decisions have to be taken as and when a situation arises because various theories suggest that there is no universal device applicable to everyone and what motivate people is situational factors.

CHAPTER 5: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study was aimed at describing the status of ERP, investigate the major determinant hindering factors , and the major determinant motivation strategies that enhance the effective participation of AU instructors to do research. Thus, based on the study results and analysis, the following summary, conclusions and recommendations were made.

5.1 SUMMARY:

This study was conducted in Ambo University located at 138 Kms away from Addis Ababa on the way to Nekemte road. It was selected by the researcher due to the interest of the researcher and lack of previous study (ies) on the current topic. The main purpose of the study was to investigate and describe the status, determinant hindering factors, and determinant motivational strategies to the ERP of instructors of Ambo University. The study was felt significant because it contributes to academic knowledge, general public awareness and government policy regarding the status of conducting educational research in higher education, the identification of potential determinant deterring factors, the identification of determinant applicable motivation strategies, and was also believed that it gives some suggestions for researchers who want to pursue for further study in this area.

Concerning the designs of the study, Mixed Methods Research [both quantitative and qualitative research designs] was employed. With quantitative research design, descriptive research method was employed, whereas, with qualitative research design, case study was employed. Concerning the sampling techniques of the present study, multistage sampling techniques were used.

The total of 60 instructors (male=55 and female=5) for survey were sampled using systematic sampling techniques, whereas, the 6 informants for qualitative interview were sampled purposively. In total 65 participants were involved in this study. With respect to data collection instruments, closed- ended and open- ended questionnaire were used to collect primary quantitative data. Interview was also used to gather qualitative data for the study. Document review was also another employed instrument of data collection related to the population profile of AU and mission statements of the University as a secondary data.

Procedurally, after obtaining approval of the IER for the researcher selected optional three topics and proposed research proposal, intensive review of the literature, preparation of closed- ended and open-ended questionnaires and interview guide were prepared in English. The validity of the

instruments was made by forwarding to 11 related professionals from various institutions. Following the content validity of the questionnaire, pilot- testing of questionnaire was made with 15 instructors of Ambo University selected and later unenclosed in the final study. Then, reliability coefficients were computed by internal consistency method using Cronbach Alpha. The reliability value computed on total degree base was (0.899) with the value of Cronbach's Alpha Based on Standardized Items (0.72) for the total items of 74, which indicates that there is a sufficient degree of homogenous and agreement.

Quantitative data were summarized and described with descriptive statistics (frequency distribution, cross-tabulation, mean, and standard deviation) and was analyzed using inferential statistics (t-test, independent sample t-test and binary logistic regression) statistics and were computed using SPSS version 20.0 software for analysis. The level of significance of 0.05 was selected to test the existence of the significance differences between research participating and non-participating groups. Qualitative data was analyzed for recurring themes and concepts that were emerged from the research participants and used to explain and enhance the statistical data drawn from the quantitative portion of this study. Also, the following were the findings of this study:

6.2 FINDINGS: The findings of the study as viewed from the status, determinant hindering factors and determinant motivation strategies of motivation were presented as follows:

1. From the total sample instructor-respondents, 46(76.7%) of them responded that AU made research work as part of its mission statement. In the contrary, only 3(5%) respondents responded that AU doesn't make research as part of its mission statement and 11(18.3%) respondents responded that they don't know whether AU made research part of its mission statement or not.
2. In view of the status of ERP in AU, respondents' were asked to rate and 34/56.7% rated as medium. Only 6(10%) of the sample instructor-respondents rated as high. Nevertheless, 17(28.3%) rated as low and 3(5%) rated as very low in status.
3. Moreover, the status of ERP of AU was characterized and agreed by the majority of respondents as not well developed (N=44 respondents with $\overline{X}$ =3.93), limited to MA thesis/PhD dissertations (N=32 respondents with $\overline{X}$ = 3.82), low in quantity (N= 32 respondents with $\overline{X}$ =3.73), and faced the problem of quality (N= 25 respondents with $\overline{X}$ =3.48).

4. With respect to the consistency of instructors educational research plan in line with their teaching plan, 53(88.3%) of the sample instructor- respondents agreed and 7(11.7%) were disagreed. Despite this, it was found that 16(30.2%) of them have their own annual educational research plan in line with their teaching plan, whereas, 37(69.8%)/majority of them don't have annual educational research plan in line with their teaching plan.

5. Concerning the participation of instructors, it was also found that 55(91.7%) of them were agreed that it is the role of HEI instructors to do research, however, in practices, 32(58.2%) of them were currently participating and the remaining 23(41.8%) of them were not participating in AU to do educational research.

6. In terms of the name of the college/institute like 1st CSSH (N=15), 2nd CNCS (N=11), and IEPS (N=5) were in favor of ERP. In terms of the name of the departments 1st English language (N=8), 2nd physics (N=6), and 3rd Afaan Oromo & literature (N=5) were highly in favor of the ERP. The other departments with the frequency of (N=2 each) were the department of Mathematics, EDPM,AECD, and Sport science that were found at the medium level of as compared to the other departments in terms of participation. The least (only N=1 each) frequented number of sample instructors were from the department of Civics and Ethical Education, Sociology & Social work, and psychology.

7. Furthermore, out of the total sample instructor-respondents who responded " Yes" to their involvement into educational research work, the majority of them, 17(53.1%) involved collaboratively, 4(12.5%) involved individually, and 11(34.4%) involved in both types.

8. The purpose of sample instructors previous studies was asked and found that 23(31.1%) for scholarly prestige/ do with my promotion, 22(29.7%) for effective teaching-learning /quality of instruction, 15(20.3%) to give answers to various social problems, 8(10.8%) to test theory, and 6(8.1%) to develop the theory.

9. Besides, out of the total 32(58.2%) sample respondents who were participating to educational research work, individually 4(12.5%), collaboratively 5(15%), and in both cases 2(6.3%) of the sample respondents were published their research results on the reputable journals.

10. Institutional supports given to instructors were another question presented for AU instructors and found that out of the total 32(58.2%) sample instructor-respondents who were involved into ERP in Ambo University, 18(56.3%) were not given any educational research supports from their University. However, 14(43.8%) of the sample instructor-respondents were given educational research supports from their University.

11. Question related to the selection and application of educational research typologies was also presented to the respondents. In this regard,34(27.6%) preferred action research over the other typologies of educational research followed by descriptive research(N= 22/17.9%), case study (N=16/13%), experimental research(N=14/11.4%), correlation research(N=13/10.6%), historical research(n=6/4.9%),cross-sectional studies(N=5/4.1%), ex-post facto research(N=3/2.4%), and longitudinal and naturalistic/ethnographic research each by 1(0.8%).

12. Selection and application of educational research methodologies was another item. Accordingly, out of those 32(58.2%) instructors who were involved in to the educational research work, 19(59.4%) of them were preferred and applied mixed methods educational research methodology over the single used of quantitative or qualitative educational research. Also, other 6(18.8%) of the total educational research participants in AU approached their study from the qualitative educational research methodology and 4(12.5%) of them approached their study quantitatively.

13. With respect to the selection and application of the basic elements of the educational research processes, out of the total 32(58.2%) of the sample instructors who were participating in ERP in the University, most of the AU instructors (N=17) were not strictly followed the basic elements of the educational research processes in their studies. Whereas, some sample respondents (N=14) were followed. Besides, some appropriate and inappropriate practical examples given were collected though open-ended questionnaire (chapter 5).

14. Multiple casual factors have been hindering the involvement of HEIs to do research. Similarly, in the case of AU, major determinants hindering factors were identified as lack of research budget/fund ($\overline{X}$ =3.95), lack of dissemination channels like workshops ($\overline{X}$ =3.88), lack of publication outlets like scholarly journals ($\overline{X}$ =3.86), interest to do educational research ($\overline{X}$ =3.63),lack of research infrastructures like computers & others ($\overline{X}$ =3.56), lack of work motivation ($\overline{X}$ =3.52), work load/shortage of time like teaching load & others ($\overline{X}$ =3.42),

problem of personnel capacity ($\overline{X}$ =3.4), poor organizational commitment $\overline{X}$ =3.40), perception towards educational research($\overline{X}$ =3.40), low job satisfaction($\overline{X}$ =3.38), field of specialization($\overline{X}$ =3.30), and years of teaching experience in higher education($\overline{X}$ =3.27) were responded by the respondents that they have affected their participation to educational research in the University.

However, educational level ($\overline{X}$ =2.88) and sex of the respondents ($\overline{X}$ =1.73) were found as not the major determinant hindering factor to the involvement of instructor in Ambo University to do educational research. Binary logistic regression shows that independent variables of hindering factors such as perception towards educational research (Sig0.049 < 0.05 and corresponding expected beta value/ Exp(B)/ called order ratio=7.67), interest towards educational research practices with (Sig=0.015< 0.05 and Exp(B)=13.97) and sample instructor-respondents work load/shortage of time like teaching and others with (Sig=0.042 < 0.05 and Exp(B)=6.29) have significant hindering contribution to instructors to do educational research in AU.

15. Among other determinant factors, employee motivation by the organization was found contributes to the success of their missions. As conducting research was stated in the mission statement of AU, sample instructors were asked about their agreement to the practices of AU officials' role of motivating their employees for the same. Accordingly, it was found that the total of 48(80%) sample instructors with $\overline{X}$ =1.27 and s= .58 agreed to the University officials role of motivating instructors to do research. Despite this level of agreement, it was found that the majority of them (N=34/56.7%) replied that they were not motivated by their officials ($\overline{X}$ = 1.57 and S=0.50) except 26(43.3%) instructors who replied "Yes".

16. Further investigation continued to assess and describe the level of motivation of the 26(43.3%) instructors who were motivated by the University officials responded that 3(11.5%) highly motivated, 11 (42.3%) medium motivated, 8(30.8%) motivated low, and 4(15.4%) of the total instructors accessed to the University officials motivation practice motivated very low.

17. Job satisfaction is a set of favorable or unfavorable feeling with which the employees view their work. It is the feeling of relative pleasure or pain (Singh and Pandey, 2009 & Locke and Lathan, 1990). In this case, the study of AU instructors' self-reported level of job satisfaction was made based on theory of Frederick Herzberg's intrinsic factor theory of motivation and found that 1st responsibility($\overline{X}$ = 2.11/lowest mean value), 2nd opportunity for growth($\overline{X}$ = 3.3),3rd achievement($\overline{X}$ = 3.33), 4th work itself($\overline{X}$ = 3.60),5th advancement($\overline{X}$ = 3.87), and 6th

recognition($\overline{X}$ = 3.87/highest mean value) that the presence of these intrinsic factors in the present order of their significances to them yield feeling of satisfaction to do educational research and any decrease in these factors will not affect their level of satisfaction.

18. In the contrary, employee's level of job dissatisfaction or called hygiene factors are the features of a work condition that can, when found sufficiently attain employees' pain-avoidance needs(Silver, 1983).In this case, AU instructors' self-reported level of job dissatisfaction was investigated_based on theory of Frederick Herzberg's extrinsic factor theory of motivation and found that respondents ranked 1st work condition($\overline{X}$ = 3.57/smallest mean value), 2nd salary($\overline{X}$ = 3.87), 3rd organizational policy($\overline{X}$ = 4.48), 4th effects on personal life($\overline{X}$ = 4.5),5th job security($\overline{X}$ = 4.68), 6th interpersonal relationship (peer)($\overline{X}$ = 5.58),7th interpersonal relationship (subordinate)($\overline{X}$ = 6.0),8th supervision (technical)($\overline{X}$ = 6.08); and 9th Status($\overline{X}$ = 6.30) that the presence of these hygiene factors of dissatisfaction do not usually bring about feelings of satisfaction rather support the mental health of workers but when non-existent, insufficient, or negative in a work condition bring about feelings of dissatisfaction.

19. It was found that there were multiple causal hindering factors to the involvement of AU instructors to do educational research. Among these, lack of work motivation was found the one. To overcome such deterring factors various applicable motivational strategies were investigated in the case of AU instructors such as instructors' having necessary knowledge, abilities, & skills to do research($\overline{X}$ = 4.38), degree of equity that instructors perceive in their work situation ($\overline{X}$ = 4.22), focusing on trust& intimacy among instructors & officials($\overline{X}$ = 4.22), job enrichment motivational techniques like creating opportunities & others($\overline{X}$ = 4.12), be good/paternalistic techniques like providing good education & others($\overline{X}$ = 4.10), instructor's expectation of achieving the goal ($\overline{X}$ = 4.08), goal setting to achieve higher performance($\overline{X}$ = 3.93), what motivates instructors is situation ($\overline{X}$ = 3.85), non-financial inactivates like promotion & others(reinforcement theory) ($\overline{X}$ = 3.70),financial incentives like fair salaries, medical reimbursement,& others($\overline{X}$ = 3.68), fulfilling physiological needs, and other needs continuously($\overline{X}$ = 3.67), and providing an individual with extrinsic reward to perform($\overline{X}$ = 3.53) could motivates instructors to do educational research.

20. It was found that there is no statistically significant difference (sig > 0.05) among sample instructor-respondents who responded "Yes" and "No" in the application of the identified major

determinant motivational strategies to motivate AU instructors except two motivational strategies such as degree of equity that instructors perceive in their work situation (group $\overline{X}$ for yes= 4.00 and for no=4.48, t-test= -2.19,df=53, and sig 0.033<0.05) and what motivates instructors is situation (group $\overline{X}$ for yes= 3.53 and for no=4.26, t-test= -2.25,df=53, and sig 0.028<0.05).That is, they are equally motivated by the major list of determinant motivation factors (annex 8 and chapter 5 discussions for t-test, df, and sign for each motivational strategies).Finally, binary logistic regression shows that independent variables of motivation strategy what motivates instructors is a situation with (Sig=0.03< 0.05 and Exp(B)=.315 has significant motivational contribution to the participation of instructors to do educational research.

5.2 CONCLUSIONS: Based on the analysis, the following were the conclusions:

Status was defined as the existing state of affairs or the present condition. In line with this, the computed result of the frequency distribution, mean, and standard deviation indicates that AU made research work as part of its mission statement. Following this, the majority of the respondents rated the status of the ERP in AU as "medium" level status. This was confirmed through the review of the University's legislation (AU, 2011) and interview results made on 15th May 2012.On top of these, various techniques were used to triangulate such responses. For examples, using various attributes of ERP in other Universities of Ethiopia, the current status of ERP in AU was characterized as not well developed, limited to MA thesis/PhD dissertations, low in quantity, and faced the problem of quality. Moreover, even though, majority of the respondents agreed that there must be consistency of educational research plan in line with annual teaching plan, in practice, some were responded that they don't have annual educational research plan in line with their teaching plan. Thus, it is now possible to conclude that the status of educational research practice of AU was found as "medium level" status.

Furthermore, the researcher also investigated the current status of instructors ERP which was defined as active participation/involvement in educational research activities by higher education instructors and found that majority agreed that HEI instructors have to do educational research but in practice in AU it was found that out of the total 60 sample instructor-respondents 32(58.2%) responded "Yes" and 23(31.1%) responded "No" to their involvement into educational research work. Given the above findings, it is possible to conclude that majority of sampled instructors of AU were involved into ERP.

Moreover, it was found that in terms of the colleges, 1st CSSH, 2nd CNCS, and IEPS, were in favor of ERP. In terms of the departments 1st English language, 2nd physics, and 3rd Afaan Oromo & literature were highly in favor of the ERP. From these, it is possible to conclude that there exist differences in the instructors' involvement into ERP in terms of their name of the college and in terms of their name of departments.

According to the results of the findings, majority of the instructors were preferred action research over the other typologies of educational research followed by descriptive research, and others, too. Yet more, 19(59.4%) of them were preferred and applied mixed methods educational research methodology over the single use of quantitative or qualitative educational research methodology. From these findings, it is possible to conclude that ,even though, the number of the preferences and application of each educational research typologies by instructors were unequally distributed, most of the AU instructors were selected and applied all types of educational research typologies. Sample instructors emphasis to their preference to the mixed method research method over the other types of educational research methodology was another driven conclusion that they were aware of the contemporary trend in the practices of educational research: application of mixed method research methodology to overcome the weaknesses inherent in other two types of methodologies.

Determinant hindering factors are any factors or conditions that are deliberately varied or deliberately held constant in an experiment in order that its effect be studied or ruled out of consideration. In line with this, the study was conducted on the major determinant hindering factors that have been affecting the involvement of AU instructors to do educational research. Thus, based on the results of frequency distribution, mean and standard deviation, the multiple causal determinant hindering factors were affected the participation of AU instructors to do educational research. Thus, based on the results of the study, it is possible to conclude that there were multiple determinant human, financial, material, and institutional factors that have been affecting instructors of the University to effectively engage themselves into their role of doing educational research.

Based on the results of the binary logistic regression, it is possible to conclude that , independent variables of hindering factors such as perception towards educational research (Sig0.049 < 0.05 and corresponding expected beta value/ Exp(B)/ called order ratio=7.67), interest towards educational research practices with (Sig=0.015< 0.05 and Exp(B)=13.97) and sample instructor-respondents work load/shortage of time like teaching and others with (Sig=0.042 < 0.05 and Exp(B)=6.29) were

found as having significant hindering contribution to the participation of instructors to do educational research. This shows shat, there exist variations among the major determinant hindering factors in their power of hindering to the effective participation of instructors in AU to do educational research.

Determinant motivation strategy is the process that arouses, energizes, directs, and sustains behavior and performance. In line with this, the study identified major determinant motivation strategies to the involvement of AU instructors to do educational research. Thus, based on the results of the study, it is possible to conclude that there were multiple determinant process, content, and reinforcement motivational strategies when applied could motivates the effective participation of AU instructors to do educational research. Binary logistic regression was computed to investigate whether there exist differences among these determinant motivating strategies in their power to influence educational research practices or not. It was also computed to answer which predicator variable (s) makes significant contribution.

Thus, based on the results of t-test and independent sample t-test there is no statistically significant difference (sig > 0.05) among sample instructor-respondents who responded yes and no except two motivational strategies such as degree of equity that instructors perceive in their work situation (group $\overline{X}$ for yes= 4.00 and for no=4.48, t-test= -2.19,df=53, and sig 0.033<0.05) and what motivates instructors is situation (group $\overline{X}$ for yes= 3.53 and for no=4.26, t-test= -2.25,df=53, and sig 0.028<0.05).Thus, it is possible to conclude that sample instructors of AU could be are equally motivated by the major list of determinant motivation strategies. However, predictor variable what motivates instructors is a situation (Sig=0.03< 0.05 and Exp(B)=.315 has significant motivational contribution to the participation of instructors to do educational research.

5.3 RECOMMENDATIONS: In light of the findings, the following recommendations were made:

1. From the total sample instructor-respondents, 46(76.7%) of them responded that Ambo University made research work as part of its mission statement. Only 3(5%) respondents responded that Ambo University doesn't make research as part of its mission statement and 11(18.3%) respondents responded that they don't know whether Ambo University made research part of its mission statement or not. Thus, based on the present core value of AU ,that is transparency and accountability, and urgent need of the country for research –based decision makings, the researcher recommend AU' director of research. knowledge, and technology

transfer in general and the respective colleges, institutes and department heads to make clear the mission statement of AU to those who were not get informed such demanding mission statement: sign posts, broachers, AU websites, and others could be used for the same.

2. It was also found that majority of the respondents (34/56.7%) rated the current status of the ERP in the University as "medium level" status. Only 6(10%) of the sample instructor-respondents rated as high. Nevertheless, 17(28.3%) rated as low and 3(5%) rated as very low. Irrespective of the responses of the respondents, great attention has to be given by the University to the present status of ERP in AU, thereby, make a reality the preambles of HEIs in Ethiopia "to focus on critical issues of relevance and quality of education and research to contribute with efficacy to the Ethiopian people's aspirations of peace, democracy and development"(Pr. # 621/2009) by further improving its present " medium" level status.

3. The status of ERP of AU was rated based on other attributes from the literature and found as that not well developed ($\overline{X}$ =3.93), limited to MA thesis/PhD dissertations $\overline{X}$ =3.82), low in quantity ($\overline{X}$ =3.73), and faced the problem of quality ($\overline{X}$ = 3.48). Thus, AU director of research, knowledge, and technology transfer in general and the respective colleges, institutes , departments, and research coordinators were recommended to take initiatives to further scale up the current status of ERP, diversity the ER topics being limited to MA thesis/PHD dissertation to other educational research priority of the country in general and AU in particular both in quantity and quality: "A framework for national research priorities will be developed in line with which HEIs will develop their own priorities" (ESDP IV,2010/2011-2014/2015,P.63).

4. Concerning the consistency of instructors' educational research plan with their annual teaching plan, it was found that 53(88.3%) agreed and 7(11.7%) were disagreed to the need for the consistency of instructors' ERP with their teaching. However, in practice, they reported that 16(30.2%) of them have their own annual educational research plan in line with their teaching plan and 37(69.8%) of them were responded that they don't have. Pedagogically, it seems sound that respective department heads are responsible to check instructors' annual teaching plan in line with their annual research plan than neither research coordinators nor college deans.

5. It was found that 55(91.7%) of instructors were agreed, 4(6.7%) disagreed, and 1(1.7%) undecided. In spite of the high level of agreement, the present study shows that out of the total 60

sample instructor-respondents, only 32(58.2%) of them were currently participating and the remaining 23(41.8) of them were not participating into the work of education research. Yet more, out of the 32(58.2%) who were involved, it was found that 17(53.1%), 4(12.5%) and 11(34.4%) were involved collaboratively, individually and in both types respectively. Thus, AU officials like process owner for academics and research (vice-president), director of research, knowledge, and technology transfer, college deans, institutes, and department heads were recommended to undertake AU instructors related SWOT analysis, thereby, take timely measures to overcome the weaknesses and treats via tailoring their strength with the existing opportunities to do research. Indeed, this needs time, energy, and cost.

6. It was found that 1st English language and literature (N=8), 2nd physics (N=6), and 3rd Afaan Oromo & literature (N=5) were highly in favor of ERP. The other departments with the frequency of (N=2 each) were the department of Mathematics, EDPM, AECD, and Sport science that were found at the medium level of educational research practices as compared to the other departments in terms of participation. The least (only N=1 each) frequented number of sample instructors were from the department of Civics and Ethical Education, Sociology & Social work, and psychology. Thus, emphasis has to be given by respective colleges/ institutes and departments to the investigation of the less participation of departments to get involved into ERP and find means of scaling up their current level of involvement.

7. As revealed by the results of the study, 32(58.2%) of the sample instructors were involved into the ERP in AU. The purpose of their studies were 23(31.1%) for scholarly prestige/ do with my promotion, 22(29.7%) for effective teaching-learning /quality of instruction, 15(20.3%) to k answers to various social problems, 8(10.8%) to test theory, and 6(8.1%) to develop the theory. Appreciating the current diversification of AU instructors educational research topics, in line with the national and AU's research priorities, other areas of research has to be given due emphasis, too(Kothari, 2003; Derebssa, 2004; Berlin, 1996;Verma & Beard, 1981; and Teshome, 2004), AU's research coordination teams, instructors themselves, educational research stakeholders and beneficiaries should give a due attention during the research project appraisal stages, so that ensure their interest could be meet.

8. It was found that out of the total 32(58.2%) sample respondents who were participating to educational research work, only 11 instructors were published their educational research reports

on reputable journals(the types of reputable journal needs further investigation). This limited number of educational research report publications were stemmed out from lack of dissemination channels(SA to A:n=47, $\overline{X}$ =3.88 , s=1.04 ,D to SD: n=10) and lack of publication outlets like scholarly journals (SA to A/n=43, $\overline{X}$ =3.86 , s=1.03 ,D to SD: n=8),too. For similar challenges (Asrat, 2007; Birhanu, 2009; and Melese, 2010). Thus, the researcher could recommend AU colleges, institutes, and departments to have their own educational research dissemination mechanisms and publication means by finding alternative sources of funding. The AU process owner for academics and research (vice-president) and director of research, knowledge, and technology transfer, were also recommended to facilitate the allocation of government budget for the same. Indeed, this takes more time and costs as the government budget was scarce. As copying mechanisms the AU instructors with the facilitation role of officials were recommended to use other Universities educational research dissemination and publication mechanisms like for example in the case of Mekelle University (Kiflom, 2009) and AAU (Derebssa, 2004).

9. The educational research supports given from AU for the instructors was used as another parameter to assess and describe the status of ERP in AU and found that out of the total 32(58.2%) sample instructor-respondents who were involved into the ERP, the majority of [18/56.3%] sample instructors were not given any educational research supports from their University. As reported by sample respondents only 14(43.8%) sample instructor-respondents were given educational research supports from their University. Educational research as an intellectual endeavor couldn't be exercised in the absence of fulfilled educational research supports to the instructors from the University. Such types of educational research supports may be various in types depending on the depth and coverage of the research. However, irrespective of its depth and coverage, there are various basic educational research supports to be given from the University to the instructors in the form of material, financial, technical, and logistics. Thus, AU has to critically consider the support of instructors in this regards, if not, it will fail to meet national demand for research based decision-making in general and AU's mission of conducting research.

10. With respect to the appropriate selection and application of the major type(s) of educational research typologies, 34(27.6%) preferred action research over the other typologies of educational research followed by descriptive research (N= 22/17.9%), and others. This implies

that majority of the sample instructors were selected and applied action research. In deed, no advanced set rules that say AU instructors must use this or those types of educational research as the selection and application of the educational research typologies depends on the purpose of the study. In this regards, AU was recommended to avail up to date educational research materials, so that AU instructors could upgrade their horizon of knowledge related to the present selection and application of educational research types. Such recommendation holds the same to the AU in the case of instructors preferences and applications of educational research methodologies as it was reported that out of 32(58.2%) instructors who were involved in to the educational research work, 19(59.4%) of them were preferred and applied mixed methods, 6(18.8%) of them were preferred qualitative, and 4(12.5%) of them approached their study quantitatively.

11. It was reported that out of the total 32(58.2%) sample instructors who were participating in ERP in the University (N=14) respondents were shown their level of agreement that they have selected and strictly followed the basic elements of the educational research processes. However, (N=17) respondents responded "No" that they were not selected and strictly followed the basic elements of educational research processes. This implies that most of the AU instructors were not strictly followed the basic elements of the educational research processes in their studies. Some sample respondents were given relevant practical examples and some were not for each basic elements of the educational research processes discussed under chapter fiver of this study. Even out of those respondents who were given some practical examples under each basic element of the educational research processes, it was found that non-relevant examples were given.

    This shows that there exist problem of conceptualization and application of the basic elements of the educational research processes in AU as similar challenge was found in other Universalities(Kothari, 2003; Amare, 2000; Waktole, 2002; Derebssa, 2004; Amera, 2004; Asrat, 2007; Kiflom, 2009; and Berihanu, 2009).Thus, AU officials were recommended for intensive in-service training of their instructors related to educational research processes both in quantitative, qualitative, and mixed methods methodologies. Indeed, this requires place, time and cost, and hence, AU officials were recommended the tailoring approach of the junior staff to the senior staff of the University whom the University found them as experienced in educational research.

12. Human behavior is inherently noisy and therefore it is not possible to produce totally accurate predictions and hence identifications of a set of predictor variables which together provides a useful estimate of a participant's likely score on a criterion variable become indispensable. The case of identification and discussion of multiple determinant hindering factors to instructors' involvement in to the work of educational research in AU was emanates from this general idea. Hence, based on these lists of measure determinant hindering factors further recommendations were made, too. That is:-

12.1. *Allocation of sufficient research budget:*-Lack of research budget/Fund ($\overline{X}$ =3.95) was one of the major determinant hindering factor to AU instructors' involvement to educational research that was challenging in other Universalities, too (Teshome, 2004; Kate, 2004; Derebssa, 2004; Asrat, 2007; Melese, 2010; and others).To overcome such type of deterring factor, the sample instructors suggested that the University should allocate budget for research practices in an appropriate way and the distribution of budget for the research should be according to the relevance of the project. Besides, they suggested that the University management should pay attention to research works in line with the learning teaching process in the classroom. Moreover, according to the opinion of sample instructor code R30 from English department, the University must reduce bureaucratic way of releasing budget for research or must change the budget to grant. The researcher shared the opinion of the respondents collected though open-ended questionnaire.

Indeed, government allocation of sufficient research budget alone for effective research work could be seems impractical due to scare resources from the government side. The experience of Mekele University recommended to AU for the same as the former generate its research fund from internal research revenue sources , national sources(like Ministry of Science and Technology), and international sources(like United Nations Institute for Training and Research, Norwegian Program for Research and Education/, Dry Land Coordination/DCG/,Center for Development and Environment/CDE/ of University of Berne, Swizerland, International Foundation for Science, and other) (Kiflom, 2009).

12.2. *Application various research dissemination channels*: Lack of dissemination channels like workshops ($\overline{X}$ =3.88) was found as the second most determinant hindering factor. As

stated by UNESCO (1998), institutions of higher learning and other research centers are expected to publish and disseminate what has been found so that it could be utilized; and to promote research, the creation of academic journals and the implementation of a coherent publications policy at different levels are essential. Also, Derebssa (2004) on his part, states that the dissemination and utilization of research findings are an important part of expanding the positive impact of research through workshops, symposia, conferences, seminars, and publications of occasional reports, newsletters, proceedings and scholarly journals as a mechanisms/popular venues of disseminating research findings/results. Thus, AU process owner for academics and research (vice-president) and director of research, knowledge, and technology transfer in general and AU colleges, institutes, and departments were recommended to facilitate the dissemination of research findings carried in AU via events either at national or international levels using workshops, symposia, conferences, and seminars.

12.3. *Application of various publication outlets:* - Lack of publication outlets like scholarly journals ($\overline{X}$ =3.86) was also found as another determinant hindering factor, too. Thus, besides ,their facilitation for dissemination channels, AU process owner for academics and research (vice-president) and director of research, knowledge, and technology transfer in general and AU colleges, institutes, and departments were also recommended to develop their publication policy, allocate publication budget, use its own brochures, magazines, books, bulletins, newsletters, conference documents, and occasional reports as a means of bringing back the research findings to the community in general and to the intended beneficiaries in particular. Yes, indeed, own publication added to scarce publication budget and the young stage of AU, it may seems difficult to make reality such recommendations within the short period of time.

Paradoxically, it seems difficult to stay until AU get sufficient publication budget and developed accumulated experiences. Thus, alternatively, AU officials were also recommended to use other Universities publication channels like Journal of Ethiopian Studies, Ethiopian Journal of Education, Ethiopian Journal of Development Research, SINET: An Ethiopian Journal of Science, Journal of Ethiopian Law, Ethiopian Pharmaceutical Journal, The Ethiopian Journal of Health Science, Ethiopian Medical Journal, ZEDE: Journal of Ethiopian Engineers and Architects, Bulletin of the Chemical

Society of Ethiopia, Ethiopian Journal of Economics, and IER-Flambeau of Addis Ababa University (Derbssa, 2004).

12.4. *Fulfilling basic research infrastructure and equipment*: - Lack of research infrastructure and equipment ($\overline{X}$ =3.56) was another deterring factor to the involvement of AU instructors to do educational research. Thus, AU process owner for academics and research (vice-president) and director of research, in general and AU's knowledge, and technology transfer , colleges, institutes, and departments in particular were strongly recommended to fulfill research infrastructure and equipment like computers, printers, photocopy services, duplicating services, stationery, internet connections, conducive working offices, necessary office equipments, relevant reading materials, telephone services, and fax services as they are indispensable for effective involvement into the ERP. The University supports in the form of transportation, publication services, research results dissemination services and finance were also have paramount importance to mention.

12.5. *Enhancing instructors' perception and interest towards educational research:*- Based on the results of the binary logistic regression, it was found that independent variables of hindering factors such as perception towards educational research (Sig0.049 < 0.05 and corresponding expected beta value/ Exp (B) =7.67) and interest towards educational research practices with (Sig=0.015< 0.05 and Exp (B) =13.97) were found as having significant hindering contribution to the participation of instructors to do educational research. The suggestions of respondents were given a space here as they recommended that to overcome such type of deterring factor having interest towards the professions and commitment to solve community problems; having interest toward research, planning to do research under any condition, and considering research as one part of teaching-learning and doing continuously to solve the existing problems, and instructors' believe in the importance of educational research could have the potential to resort problems related to those who lacks interest to do educational research in Ambo University.

12.6. *Recruitment of additional staff*: -Besides, perception and interest towards educational research, sample instructor-respondents work load/shortage of time like teaching and others with (Sig=0.042 < 0.05 and Exp(B)=6.29) was found has significant hindering contribution to the participation of instructors to do educational research. But, as indicated in Table 5, most (28/46.7 %/) of the sample instructor-responders were reported that they

are teaching 6 to 10 periods per week, of which the majority (12/63.2%) were from the CNCS. The other 27(45%) reported that they teach 11 to 15 periods per week, of which the majority (14/60.9%) were from CSSH. The other sample instructor- respondents with less than one periods/week and greater than 16 periods/week were reported that 3(5%) and 2(3.3%) respectively. This description of the percentage simply shows us that most of the sample instructor-respondents (48 instructors) in the University could have considerable amount of time per week (12 periods per week is expected) beyond their teaching work so that they could devote these spare times to conduct educational research projects, thereby, could be promoted to the desirable academic rank. In the contrary, it was found only 32(58.2%) of the total sample instructors who were involved into ERP. But, AU has to recruit additional staff for the IEPS as 2(3.3%) of the instructors were found overloaded with teaching greater that 16 periods per week.

13. Among multiple causal hindering factors, lack of work motivation ($\overline{X}$ =3.52) was found as one of the major determinant hindering factor to the active involvement of AU instructors to do educational research that requires a great attention of the AU officials. The reason was that training, supporting, dissemination channels, publication outlets, and others alone have no guarantee for the effective ERP in AU, unless otherwise, instructors get inspired to discharge their responsibility. Thus, besides, the above recommendations, AU officials have to give strong attention to the motivation role of their instructors using the following alternative strategies of motivation, thereby, ensure the effective engagement to their instructors into educational research practices:

    13.1. *Availing elements of Job satisfaction:* AU instructors low job satisfaction ($\overline{X}$ =3.38) was found as one of the major determinant hindering factors to the instructors involvement. Thus, the study of AU instructors' self-reported level of job satisfaction was made based on theory of Frederick Herzberg's intrinsic factor theory of motivation and instructors were ranked according to their significances to them the 6 intrinsic factors of motivation: 1st responsibility, 2nd possibility of growth, 3rd achievement, 4th work itself, 5th advancement, and 6th recognition that when AU officials present these intrinsic factors in the present order of their significances to them yield instructors feeling of satisfaction to do educational research and any decrease in these factors will not affect their level of satisfaction, if not, the adverse effects of employee low job satisfaction like high turnover,

high absenteeism, tardiness, and low performance (Sign and Pandey, 2009) will not be exceptional in the case of AU.

13.2. *Presenting elements of job dissatisfaction*: In the contrary, based on Herzberg's employee's level of job dissatisfaction AU instructors' self-reported level of job dissatisfaction was investigated and found that respondents ranked 1st work condition,2nd salary,3rd organizational policy, 4th effects on personal life,5th job security,6th interpersonal relationship (peer),7th interpersonal relationship (subordinate),8th supervision (technical), and 9th Status and when AU officials present these hygiene factors of dissatisfaction in the present order of their significances to them yield instructors feeling of mental health that are related to the work environment. Thus, AU officials were strongly recommended to apply these Herzberg's extrinsic factors of motivation, too.

13.3. *Provision of in-service training on educational research:* Instructors' having necessary knowledge, abilities, & skills to do research (N= 55, total $\overline{X}$ = 4.38 and s=0.78) of Porter and Lawler Model of Expectancy theory was found as the major AU instructors' motivation strategy to do educational research. That is, if AU officials want instructors to perform their duty of conducting research, they have to be motivated. On top of their motivation, instructors must have necessary abilities, skills and knowledge of the educational research. Thus, AU officials were strongly recommended access their instructors to various in-service educational research trainings, thereby, scale up their level of abilities, skills, and knowledge of educational research and as result such type of trainings could be used for instructors motivation to do educational research.

13.4. *Ensuring degree of equity*: - Degree of equity that instructors perceive in their work situation (N=48, total $\overline{X}$ = 4.22, s=0.80) of Adams Equity Theory of Motivation was found as an alternative strategy of motivating AU instructors to do educational research. That is, according to Rao(2010), if the person's perceived ratio is not equal to the others, he or she will strive to restore the ratio to equity. Thus, the work motivation of oneself depends upon other's inputs, output and one's perceived output. Therefore, AU officials were recommended also to apply such type of alternative motivation strategy.

13.5. *Focusing on trust, intimacy, and stable work environment and others*:- Focusing on trust& intimacy (N=47, total $\overline{X}$ = 4.22, s=1.19) of William Ouchi's Theory Z was also found as alternative strategy to instructors motivation to do research that is characterized by trust and intimacy. Thus, AU officials could use motivation strategy from this side by ensuring teamwork and consensus decisions, develop close, co-operative, trusting relationship among workers, managers and other groups and stable work environment for effective involvement of into the work of educational research as such strategy, on top of motivation of employees, it helps for very low rate of absenteeism and number of grievances in the organization. These could happen if AU administer long –term employment, emphasis on training, seniority- based rewards, collective decision making, emphasis on self- discipline, holistic concern for employers and their families, trust relationship among workers, and stable work environment(Anbuvelan, 2008 and Rao, 2010).

13.6.*Employing job enrichment motivational techniques*: Job enrichment motivational techniques like creating opportunities & others (N=49, total $\overline{X}$ = 4.12, s=1.16) of McGregor's Theory Y (Positive of human beings) was found as another motivational strategy. According to this theory, people view work as rest or play, exercise self –direction and self- control, can learn to accept responsibility, are not inherently lazy, have potential that can be applied to work. So, managers should motivate them through job enrichment (positive) motivational techniques (Mc Gregor, 1963; Anbuvelan, 2008; and Rao, 2010).This employee motivation technique was also found applicable in the case of AU instructors to do research. Thus, AU officials were recommended to employee job enrichment (positive) motivational techniques to ensure their instructors involvement to do research by creating opportunities, releasing/developing employee potential, providing guidance, removing obstacles, encouraging growth, providing two communication, participatory management, decentralization of authority, delegation of authority, emphasizing self- control and self- discipline, emphasizing on satisfaction of higher level needs, rely on performance than procedure, creating proper organizational structure like humanistic and flat structure, and giving employees freedom and autonomy/empowerment of employees.

13.7. *Employing paternalistic and goal setting techniques:*-Be good/paternalistic techniques like providing good education & others (N=45, total $\overline{X}$ = 4.10,s=1.06) and goal setting to achieve higher performance(N=44, total $\overline{X}$ = 3.93, and s=1.02) were also another alternative strategy of AU instructors' motivation. Thus, AU officials were strongly recommended to be good/paternalistic with their instructors and allowed instructors to participate in goal setting that all in turn would motivate them towards higher performance of doing educational research.

13.8. *Provision of non-financial incentives:*- Besides, AU officials were also recommended to employee non-financial inactivates (N=41, total $\overline{X}$ = 3.70,s=1.32) in the forms of opportunity for growth, status, recognition of work/praise, knowledge of result, job security, fair promotion, congenial work environment, honest and competent leader, efficient organization, coordination and control, efficient system of grievance redressal, freedom of association, mobility and expression, democratic management techniques/participation, competition, suggestion system, job enrichment, and job satisfaction as all leads to realization of goals: organizational as well as individual.

13.9.*Provision of financial incentives:*- Financial incentives (N=41,total $\overline{X}$ = 3.68, and s=1.38) in the forms of wages and salaries, pay increments, leave with pay, medical Reimbursement, paid insurance, bonus, housing facilities and retirement benefits were another forms of instructors means of motivation to be applied by AU officials.

13.10. *Step by step application of Maslow's need hierarchy*:-Continuous fulfillment of Maslow's needs theory like physiological needs, and other needs (N=38, total $\overline{X}$ = 3.67, and s=1.47) was also recommended for the same.

13.11. *Adapting contingency approach to motivation*: -Finally, though there is no statistically significant difference (sig > 0.05) among sample instructor-respondents who responded yes and no(they are equally motivated by the major list of determinant motivation strategies, group $\overline{X}$ for yes and no, t-test, and sig >0.05 for all determinant motivation strategies from Annex 8) the research study has shown that AU management can make use

of different motivation strategies to motivate employees in their work settings, but different motivational strategies would have different motivational impact on diverse people.

Hence, to make sure the success of motivational tools, it is important to consider the uniqueness of the situation and the diversity of the concerned group. It is the job of the AU management to consider these different alternatives of motivational tools according to the situation as agreed what motivates instructors is situation (N=44, total $\overline{X}$ = 3.85, and s=1.22) with (Sig=0.03< 0.05 and Exp(B)=.315 has significant motivational contribution to the participation of instructors to do educational research.

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Acronyms

AAU	Addis Ababa University
AECD	Adult Education and Community Development
AU	Ambo University
BPR	Business Process Re-engineering
CAVS	College of Agriculture and Veterinary Sciences
CBR	Community Based Research
CNCS	College of Natural & Computational Science
CSSH	College of Social Science and Humanities
EAJS	East African Journal of Sciences(EAJS)
EDPM	Educational Planning & Management
ERP-	Educational Research Practices
ESDP	Education Sector Development Program
ETB	Ethiopian Birr
FDRE	Federal Democratic Republic of Ethiopia
GA	Graduate Assistant
GADA	Generation in Action Development Association
HEIs	Higher Education Institutes
HESC	Higher Education Strategy Center
HR	Human Resource
IEPS	Institute of Education & Professional Studies
IGNU	Indrain Gandi National Open University
IUCEA	Inter University Council of East Africa
KM	Kilometer
MOE	Ministry Of Education
NGO	Non-Governmental Organization
NTP	New Education & Training Policy
SPSS	Statistical Packages for Social Sciences
SWOT	Strengths, Weaknesses, Opportunities, and Treats
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nation Children's Education Fund

Appendix 1: Instructors' questionnaire for Ambo University Instructors (*Primary data source*)

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
INSTITUTE OF EDUCATIONAL RESEARCH (IER)

*Code:*_____
*Date:*_____
Due date:-------- days after administration

Dear respondent:

This study is devoted to investigate "the status and determinants (hindering and motivating) factors to instructors involvement to conduct educational research in Ambo University" for a partial fulfillment of the requirements of masters of art in educational research and development by collecting primary data using this questionnaire. The questionnaire has two major parts. The first part is about your personal information. The second part is about the instrument itself which incorporates items related to the status of educational research practices, the major hindering factors to higher education instructors' involvement to the practices of educational research, and is also concerned with the factors that motivate higher education instructors to do educational research. The information collected through this questionnaire will be used strictly for academic purposes and highly confidential. Ambo University instructors are good sources of the information for this particular study. Therefore, may I politely and kindly request you to respond to all items frankly and honestly? You do not need to write your name anywhere. Use a tick"✓" or circle or rank or write your responses as appropriate.

Thank you in advance for your valuable time to complete this questionnaire

PART I: DEMOGRAPHIC DATA (items 1.1 -1.13)

1 Name of the college/institute_____
2 Name of the Department_____
3 Age : _____
4 sex : _____
5 Marital status: _____
6 Educational qualification: _____
7 Academic Rank: _____
8 Field of specialization_____
9 Level (year) you are teaching now_____
10 Subject (s) you are teaching now_____
11 Teaching experience: _____
12 Terms of employment: _____
13 Regular teaching load per week: _____

PART II: QUESTIONNAIRE OF CLOSED AND OPEN-ENDED TYPES

Direction: Please, respond to all items using"✓" and briefly write your opinion in the spaces

2.1: Status of educational research practices (items 1-19)

1. Does Ambo University make research undertaking part of its mission statement?
   ☐ Yes ☐ No ☐ I don't know

2. How do you rate the status of educational research practices in your university?
   ☐ Very high ☐ High ☐ Medium ☐ Low ☐ Very Low

3. What characterizes the status of educational research practices in Ambo University? (*Multiple responses are possible).Response:* 5: Strongly Agree 4: Agree 3: Undecided 2: Disagree 1: Strongly Disagree

S/N	List of features	5 Points Likert- Scale				
		5	4	3	2	1
3.1	Not well developed					
3.2	Limited to MA thesis/PhD dissertations.					
3.3	Low in quantity.					
3.4	Faced problems associated with quality.					
3.5	Insignificant in undertaking relevant research.					

   Other, please, specify (if any) _____

4. In your opinion, instructors' educational research practice has to be done consistently with their teaching?
   ☐ Agree ☐ Disagree .If so why? _____

5. If your response to item # 4 is "Agree", do you have your annual educational research plan in line with your annual teaching plan?
   ☐ Yes ☐ No .If "No", why? _____

6. Do you agree with the responsibility of higher education instructors' involvement in educational research work?
   ☐ Agree ☐ Disagree ☐ Undecided. If so why? _____

7. If your response to item # 6 is "Agree", do you participate?
   ☐ Yes ☐ No

8. If your response to item # 7 is "yes", what is the type of your involvement?
   ☐ Individual ☐ Collaborative ☐ Both types

9. If your response to item # 7 is "yes", how often have you ever participate? ___ times individually ,_____ times collaboratively, and _____ times in both cases

10. The reason(s) for your previous study was/were ((*Multiple responses are possible*):
    I participate:

	Yes	No
10.1 for scholarly prestige/ do with my promotion	☐	☐
10.2 for effective teaching-learning /quality of instruction	☐	☐
10.3 to seek answers to various social problem	☐	
10.4 To test theory		☐
10.5 to develop theory	☐	☐
	☐	☐

11. How about the status of publication of educational research on reputable journals?

	Item	Published	unpublished
11.1	Individually		
11.2	Collaboratively		
11.3	In both cases		

If published, how many times?_____

12. Do you get educational research support from your University?

☐ Yes ☐ No . If "yes", what supports do you get?_____

13. Which educational research type(s) you were preferred in your study (*Multiple responses are possible)?*

S/N	List of the types of educational research	Yes	No
13.1	Action research		
13.2	Case study research		
13.3	Correlational research		
13.4	Descriptive research		
13.5	Experimental research		
13.6	Explanatory or causal research		
13.7	Ex post facto research		
13.8	Historical research		
13.9	Longitudinal research		
13.10	Naturalistic/ethnographic research		
13.11	Cross-sectional studies		

14. What was your preference to educational research methodology your previous study?

☐ Quantitative ☐ Qualitative ☐ Mixed methods

S/N	**Items**	**Response**	
15.	**If your response to item # 14 is quantitative ,your previous study:**	**Yes**	**No**
15.1	approached the study deductively.		
15.2	independent variable(s) was/were clearly defined.		
15.3	dependent variable was clearly defined.		
15.4	casual explanations were made.		
15.5	predictions were made.		
16.	**If your response to item # 14 is qualitative , your previous study**	**Yes**	**No**
16.1	approached the study inductively.		
16.2	focused in participants view.		
16.3	developed concept map of the study.		
16.4	undertook holistic analysis.		
17.	**If your response to item # 14 is mixed methods methodology, your study:**	**Yes**	**No**
17.1	combine or associate both quantitative and qualitative forms		
17.2	approached data collection concurrently where both quantitative & qualitative data collection was made at the same time.		
17.3	approached data collection sequentially where quantitative & qualitative data collections were employed one after the other.		

17. Your study followed strictly the basic elements of research processes in each methodology?
☐ I totally agree ☐ I mostly agree ☐ I mostly disagree ☐ I totally disagree ☐ I don't know

18. Given below are the basic elements of educational research processes. Please, respond to the following items 18.1-18.19 by **encircling** for 1) Yes 2) No 3) Not applicable (NA). Please, also give some practical examples and write your brief opinion as appropriate

S/N	While following the basic elements of educational research processes, in your previous study(ies) you have:	Alternatives			please, give some practical examples under this column
		Yes	No	NA	
18.1	Chosen research topic/problem based on criterion in specific way.	1	2	3	Criterion used: a.---------- b. ----------
18.2	Specified the research title that contains variables	1	2	3	Research title(s): a.---------- b. ----------
18.3	Collected needed information by reviewing the related literatures	1	2	3	Purposes of your reviewing literature
18.4	Set research question unambiguously	1	2	3	E.g. research question: a. ---------- b. ----------
18.5	Hypotheses the study derived from the research questions in accurate form	1	2	3	E.g. Hypothesis: a. ---------- b. ---------- c.----------
18.6	Applied appropriate research design(s)	1	2	3	E.g. Research design(s) used: a. ---------- b. ----------
18.7	Determined appropriate sampling techniques(s)	1	2	3	E.g. Sampling technique(s) used: a. ---------- b. ---------- c. ----------
18.8	Determined sample size based on sample size determination techniques(s)	1	2	3	E.g. Sample size determination technique(s) used a. ---------- b. ---------- c. ----------
18.9	Selected dependable data collection tools (methods)	1	2	3	E.g. Data collection method(s) used: a. ---------- b. ---------- c. ----------
18.10	Validated research instruments using appropriate validation techniques	1	2	3	E.g. Validation technique(s) used: a.---------- b. ---------- c. ----------
18.11	Checked the reliability of research instruments using appropriate reliability technique(s)	1	2	3	E.g. Reliability techniques(s) used: a.---------- b. ---------- c. ----------
18.12	Selected appropriate data analysis technique(s)	1	2	3	E.g. Data analysis techniques(s) used: a.---------- b. ---------- c. ----------
18.13	Answered your basic questions.	1	2	3	
18.14	Tested the hypothesis.	1	2	3	

S/N	While following the basic elements of educational research processes, in your previous study(ies) you have:	Alternatives			please, give some practical examples under this column
		Yes	No	NA	
18.15	Generalized the study	1	2	3	
18.16	Contextualized the study	1	2	3	
18.17	Presented clear research report.	1	2	3	
18.18	Issued recommendations.	1	2	3	
18.19	Disseminated the research results using various mechanisms.	1	2	3	E.g. Research result dissemination mechanisms used: a.---------- b. ----------

19. What suggestion you make for further improvements concerning the current status of educational research practices in your university?----------
---

2.2: Determinant hindering factors to the involvement of instructors to do educational research (items # 20-21)

20. Please, respond by to the following items using "✓" mark in the space provided for 5) Strongly Agree 4) Agree 3) Undecided 2) Disagree and 1) Strongly Disagree in the case of Ambo University instructors:

S/N	To what extent the following determinant (hindering) factors have affected your practices of educational research?	5 Points Likert- Scale				
		5	4	3	2	1
20.1	Sex					
20.2	Educational Level					
20.3	Years of teaching experience in higher education					
20.4	Field of specialization					
20.5	Perception towards educational research					
20.6	Interest to do educational research					
20.7	Problem of personnel capacity					
20.8	Lack of research infrastructures like computers, & others					
20.9	Lack of research budget/fund					
20.10	Work load/shortage of time like teaching load & others					
20.11	Lack of publication outlets like scholarly journals					
20.12	Lack of dissemination channels like workshops					
20.13	Low job satisfaction					
20.14	Poor organizational commitment					
20.15	Lack of work motivation					

21. What suggestion do you make to reduce the major hindering factors to the involvement of higher education instructors to conduct educational research?----------
---

2.3: Determinant motivational factors to instructors' educational research practices (items 22-30)

22. Do you agree with University officials' role of motivating instructors to do research?

☐ Agree ☐ Disagree ☐ Undecided. If agree, why? ----------
---

23. Were you motivated by University officials to get involved in educational research?

☐ Yes ☐ No. If "NO" why? ----------
---

24. If your response to item # 23 is " Yes", what is your overall level of motivation as result of your University officials' motivating instructors to actively engage in conducting educational research?

☐ Very low ☐ Low ☐ Medium ☐ High ☐ Very high .If " very low or low" why? ----------
---
---

25. Please, **rank** the following intrinsic factors/6 set of job conditions / related to job satisfaction according to their level of significances to your level of job satisfaction from 1st (highly significant factor of motivation) to 6th (lowest significant factor of job satisfaction) to do educational research:

- Advancement
- Work itself
- Responsibility
- Recognition
- Opportunity for growth
- Achievement

26. Please, **rank** the following extrinsic factors of job dissatisfaction/9 dissatisfies / that their presence will not provide any satisfaction to you, and however, any decrease will be a dissatisfier in your involvement to do educational research from 1st (highly significant factor of job dissatisfaction) to 9th lowest significant factor of job dissatisfaction) to do educational research:

- Effects on personal life
- Supervision (technical)
- Job security
- Salary
- Organizational policy
- Interpersonal relationship (peer)
- Interpersonal relationship (Subordinate)
- Working condition
- Status

Please, respond to items # 27-29 by ticking using"✓" mark in the space provided that when applied motivates Ambo University instructors to effectively get involved into educational research practices:

Level of agreement: 5) strongly agree 4) agree 3) undecided 2) disagree 1) strongly disagree

S/N	What motivates Ambo University instructors to do education research is/are:	5points –Likert Scales				
27	**Content factors of motivation**	**5**	**4**	**3**	**2**	**1**
27.1	Enforcement by University officials like wage cut if they didn't work					
27.2	Rewarding & penalizing instructors based on degree of performance					
27.3	Effort-reward-effort technique like rewarding only money					
27.4	Carrot(e.g incentives) & stick(e.g demotion) techniques					
27.5	Be good/paternalistic techniques like providing good education & others					
27.6	Negative motivational techniques like coercion to work					
27.7	Job enrichment motivational techniques like creating opportunities & others					
27.8	Focusing on trust& intimacy among instructors &officials					
27.9	Fulfilling physiological needs , and other needs continuously					
27.10	What motivates instructors is situation					
28	**Process factors of motivation**	**5**	**4**	**3**	**2**	**1**
28.1	Instructor's expectation of achieving the goal					
28.2	Instructor's having necessary knowledge, abilities, & skills to do research					
28.3	Degree of equity that instructors perceive in their work situation					
28.4	Providing an individual with extrinsic reward to perform					
28.5	Goal setting to achieve higher performance					
29	**Reinforcement factors of motivation**	**5**	**4**	**3**	**2**	**1**
29.1	Financial incentives like fair salaries, medical reimbursement,& others					
29.2	Non-financial inactivates like promotion & others					
29.3	Noxious stimuli like fine/penalty and others					
29.4	Punishment like suspension without pay					
29.5	Removing previous rewards					

Source: Adapted construct from McGrogor, 1963; Siliver, 1983; Hason, 1985; Bartole&Martin, 1994; Anbuvelean, 2008; Singh & pandey, 2009; Rao, 2010; and others by the researcher:

30. What suggestion do you make that you think could motivate higher education instructors to do research?

a. ----------
b. ----------
c. ----------

Dear respondent: *May I kindly request you once again to check your responses to all the items. Also, please, hope your attendance to the members' validation session and your copy of the final document. My contact: 0911-43-44-34 and email: gadagada96@ yahoo.com*

Thank you for your help!

Appendix 3: Respondents' profile by college/institution, Department, sex, age & marital status (N=60)

Name of the college/Inst	Department	Frequency & %	Sex of respondent's			Age in category						Marital Status		
			Male	Female	Total	<25	26 - 30	31 - 35	36 - 40	>40	T	Single	Married	T
CNCS	Biology	Count												
		%												
	Chemistry	Count												
		%												
	Mathematics	Count	11	1	12	2	5	4	1	0	12	4	8	12
		%	91.7%	8.3%	100.0%	16.7%	41.7%	33.3%	8.3%	.0%	100.0%	33.3%	66.7%	100.0%
	Physics	Count	6	1	7	2	1	2	1	1	7	3	4	7
		%	85.7%	14.3%	100.0%	28.6%	14.3%	28.6%	14.3%	14.3%	100.0%	42.9%	57.1%	100.0%
	Total	Count	17	2	19	4	6	6	2	1	19	7	12	19
		%	89.5%	10.5%	100.0%	21.1%	31.6%	31.6%	10.5%	5.3%	100.0%	36.8%	63.2%	100.0%
CSSH	Afan oromo	Count	5	0	5	0	1	2	1	1	5	0	5	5
		%	100.0%	.0%	100.0%	.0%	20.0%	40.0%	20.0%	20.0%	100.0%	.0%	100.0%	100.0%
	Civics and ethical studies	Count	3	1	4	2	2	0	0	0	4	4	0	4
		%	75.0%	25.0%	100.0%	50.0%	50.0%	.0%	.0%	.0%	100.0%	100.0%	.0%	100.0%
	English language and literature	Count	10	1	11	2	3	2	4	0	11	6	5	11
		%	90.9%	9.1%	100.0%	18.2%	27.3%	18.2%	36.4%	.0%	100.0%	54.5%	45.5%	100.0%
	Sociology and social work	Count	2	1	3	2	0	0	0	1	3	2	1	3
		%	66.7%	33.3%	100.0%	66.7%	.0%	.0%	.0%	33.3%	100.0%	66.7%	33.3%	100.0%
	Total	Count	20	3	23	6	6	4	5	2	23	12	11	23
		%	87.0%	13.0%	100.0%	26.1%	26.1%	17.4%	21.7%	8.7%	100.0%	52.2%	47.8%	100.0%
IEPS	Adult education	Count	3		3	0	0	1	0	2	3	1	2	3
		%	100.0%		100.0%	.0%	.0%	33.3%	.0%	66.7%	100.0%	33.3%	66.7%	100.0%
	EDPM	Count	6		6	0	1	2	1	2	6	1	5	6
		%	100.0%		100.0%	.0%	16.7%	33.3%	16.7%	33.3%	100.0%	16.7%	83.3%	100.0%
	Psychology	Count	4		4	0	2	2	0	0	4	1	3	4
		%	100.0%		100.0%	.0%	50.0%	50.0%	.0%	.0%	100.0%	25.0%	75.0%	100.0%
	Sport science	Count	5		5	1	2	1	1	0	5	2	3	5
		%	100.0%		100.0%	20.0%	40.0%	20.0%	20.0%	.0%	100.0%	40.0%	60.0%	100.0%
	Total	Count	18		18	1	5	6	2	4	18	5	13	18
		%	100.0%		100.0%	5.6%	27.8%	33.3%	11.1%	22.2%	100.0%	27.8%	72.2%	100.0%

Appendix 4: Respondents' profile by college/institution, department, educational qualification, & academic rank (N=60)

College/ Institute	Department	Frequency & %	Educational qualification				Academic Rank			
			Bsc/BA	Msc/MA	PHD & above	T	GA lecturer	Lecturer	Ass. Prof.	Total
CNCS	Biology	Count								
		%								
	Chemistry	Count								
		%								
	Mathematics	Count	2	10		12	2	10		12
		%	16.7%	83.3%		100.0%	16.7%	83.3%		100.0%
	Physics	Count	1	6		7	1	6		7
		%	14.3%	85.7%		100.0%	14.3%	85.7%		100.0%
	Total	Count	3	16		19	3	16		19
		%	15.8%	84.2%		100.0%	15.8%	84.2%		100.0%
CSSH	Afan oromo	Count	0	5	0	5	0	5	0	5
		%	.0%	100.0%	.0%	100.0%	.0%	100.0%	.0%	100.0%
	Civics and ethical studies	Count	2	2	0	4	1	2	1	4
		%	50.0%	50.0%	.0%	100.0%	25.0%	50.0%	25.0%	100.0%
	English language and literature	Count	0	11	0	11	0	11	0	11
		%	.0%	100.0%	.0%	100.0%	.0%	100.0%	.0%	100.0%
	Sociology and social work	Count	2	0	1	3	2	0	1	3
		%	66.7%	.0%	33.3%	100.0%	66.7%	.0%	33.3%	100.0%
	Total	Count	4	18	1	23	3	18	2	23
		%	17.4%	78.3%	4.3%	100.0%	13.0%	78.3%	8.7%	100.0%
IEPS	Adult education	Count	0	3		3	0	3		3
		%	.0%	100.0%		100.0%	.0%	100.0%		100.0%
	EDPM	Count	0	6		6	0	6		6
		%	.0%	100.0%		100.0%	.0%	100.0%		100.0%
	Psychology	Count	0	4		4	0	4		4
		%	.0%	100.0%		100.0%	.0%	100.0%		100.0%
	Sport science	Count	2	3		5	1	4		5
		%	40.0%	60.0%		100.0%	20.0%	80.0%		100.0%
	Total	Count	2	16		18	1	17		18
		%	11.1%	88.9%		100.0%	5.6%	94.4%		100.0%

Appendix 5: Respondents' profile by college/institution, department, teaching experience, teaching load, and term of employment (N=60)

Name of the college/Institute	Department	Frequency & %	Teaching experience in category & years						Teaching load in category & hrs					Term of employment		
			< 1	2-5	6-10	11-15	>15	T	<1	6-10	11-15	>16	T	Contract	Perm.	T
CNCS	Biology	Count														
		%														
	Chemistry	Count														
		%														
	Mathematics	Count	0	4	7	0	1	12	0	6	6		12	1	11	12
		%	.0%	33.3%	58.3%	.0%	8.3%	100.0%	.0%	50.0%	50.0%		100.0%	8.3%	91.7%	100.0%
	Physics	Count	1	3	0	2	1	7	1	6	0		7	1	6	7
		%	14.3%	42.9%	.0%	28.6%	14.3%	100.0%	14.3%	85.7%	.0%		100.0%	14.3%	85.7%	100.0%
	Total	Count	1	7	7	2	2	19	1	12	6		19	2	17	19
		%	5.3%	36.8%	36.8%	10.5%	10.5%	100.0%	5.3%	63.2%	31.6%		100.0%	10.5%	89.5%	100.0%
CSSH	Afan oromo	Count	0	1	1	1	2	5	1	4	0		5	1	4	5
		%	.0%	20.0%	20.0%	20.0%	40.0%	100.0%	20.0%	80.0%	.0%		100.0%	20.0%	80.0%	100.0%
	Civics and ethical studies	Count	2	1	1	0	0	4	0	2	2		4	0	4	4
		%	50.0%	25.0%	25.0%	.0%	.0%	100.0%	.0%	50.0%	50.0%		100.0%	.0%	100.0%	100.0%
	English language and literature	Count	2	2	3	3	1	11	0	1	10		11	4	7	11
		%	18.2%	18.2%	27.3%	27.3%	9.1%	100.0%	.0%	9.1%	90.9%		100.0%	36.4%	63.6%	100.0%
	Sociology and social work	Count	2	0	0	0	1	3	0	1	2		3	2	1	3
		%	66.7%	.0%	.0%	.0%	33.3%	100.0%	.0%	33.3%	66.7%		100.0%	66.7%	33.3%	100.0%
	Total	Count	6	4	5	4	4	23	1	8	14		23	7	16	23
		%	26.1%	17.4%	21.7%	17.4%	17.4%	100.0%	4.3%	34.8%	60.9%		100.0%	30.4%	69.6%	100.0%
IEPS	Adult education	Count	0	0	1	0	2	3	1	1	1	0	3	2	1	3
		%	.0%	.0%	33.3%	.0%	66.7%	100.0%	33.3%	33.3%	33.3%	.0%	100.0%	66.7%	33.3%	100.0%
	EDPM	Count	1	2	2	1	0	6	0	3	3	0	6	1	5	6
		%	16.7%	33.3%	33.3%	16.7%	.0%	100.0%	.0%	50.0%	50.0%	.0%	100.0%	16.7%	83.3%	100.0%
	Psychology	Count	0	1	2	1	0	4	0	1	3	0	4	1	3	4
		%	.0%	25.0%	50.0%	25.0%	.0%	100.0%	.0%	25.0%	75.0%	.0%	100.0%	25.0%	75.0%	100.0%
	Sport science	Count	1	4	0	0	0	5	0	3	0	2	5	2	3	5
		%	20.0%	80.0%	.0%	.0%	.0%	100.0%	.0%	60.0%	.0%	40.0%	100.0%	40.0%	60.0%	100.0%
	Total	Count	2	7	5	2	2	18	1	8	7	2	18	6	12	18
		%	11.1%	38.9%	27.8%	11.1%	11.1%	100.0%	5.6%	44.4%	38.9%	11.1%	100.0%	33.3%	66.7%	100.0%

Appendix 6: Reliability Statistics

Appendix 6A: Cronbach's Alpha Reliability Statistics

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Instructors' Questionnaire	0.899	0.723	74

Item-Total Statistics for Instructors' Questionnaire

ITEMS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Does Ambo University make research undertaking part of its mission statement?	243.60	2,701.300	0.639	0.896
Do you agree with the responsibility of higher education instructors' involvement in educational research work?	244.00	2,804.000	-0.500	0.900
Do you get educational research support from your University?	244.00	2,796.500	-0.371	0.900
Your study followed strictly the basic elements of research processes in each methodology?	242.20	2,722.700	0.226	0.898
Chosen research topic/problem based on criterion in specific way.	243.60	2,815.300	-0.458	0.901
Specified the research title that contains variables	243.60	2,701.300	0.639	0.896
Collected needed information by reviewing the related literatures	243.40	2,710.300	0.615	0.896
Set research question unambiguously	242.20	2,439.700	0.981	0.888
Hypotheses the study derived from the research questions in accurate form	242.20	2,439.700	0.981	0.888
Applied appropriate research design(s)	242.40	2,431.300	0.972	0.887
Determined appropriate sampling techniques(s)	242.20	2,439.700	0.981	0.888
Determined sample size based on sample size determination techniques(s)	242.40	2,431.300	0.972	0.887
Selected dependable data collection tools (methods)	242.00	2,455.500	0.973	0.888
Validated research instruments using appropriate validation techniques	242.20	2,439.700	0.981	0.888
Checked the reliability of research instruments using appropriate reliability technique(s)	242.20	2,439.700	0.981	0.888
Selected appropriate data analysis technique(s)	242.20	2,439.700	0.981	0.888

ITEMS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Answered your basic questions.	242.20	2,439.700	0.981	0.888
Tested the hypothesis.	242.20	2,439.700	0.981	0.888
Generalized the study	242.40	2,431.300	0.972	0.887
Contextualized the study	242.20	2,439.700	0.981	0.888
Presented clear research report.	242.20	2,439.700	0.981	0.888
Issued recommendations.	242.20	2,439.700	0.981	0.888
Disseminated the research results using various mechanisms.	241.80	2,471.700	0.944	0.889
Sex	243.40	2,838.300	-0.431	0.902
Educational Level	241.80	2,766.700	0.039	0.899
Years of teaching experience in higher education	241.60	2,774.800	-0.006	0.899
Field of specialization	240.80	2,805.700	-0.529	0.900
Perception towards educational research	242.60	2,708.300	0.343	0.897
Interest to do educational research	242.40	2,789.300	-0.085	0.901
Problem of personnel capacity	242.00	2,695.000	0.408	0.897
Lack of research infrastructures like computers, & others	241.20	2,843.700	-0.774	0.902
Lack of research budget/fund	241.00	2,804.000	-0.500	0.900
Work load/shortage of time like teaching load & others	241.20	2,780.200	-0.063	0.899
Lack of publication outlets like scholarly journals	240.60	2,758.800	0.347	0.898
Lack of dissemination channels like workshops	240.60	2,758.800	0.347	0.898
Low job satisfaction	243.20	2,731.700	0.491	0.897
Poor organizational commitment	242.00	2,746.000	0.304	0.898
Lack of work motivation	242.00	2,699.500	0.420	0.897
If your response to item # 23 is " Yes", what is your overall level of motivation as result of your University officials' motivating instructors to actively engage in conducting educational research?	242.60	2,754.800	0.168	0.898
Advancement	241.80	2,720.200	0.235	0.898
Work itself	242.00	2,781.500	-0.051	0.900
Responsibility	243.40	2,774.300	-0.004	0.899
Recognition	242.20	2,903.700	-0.817	0.905
Opportunity for growth	240.40	2,724.800	0.263	0.898
Achievement	241.80	2,754.700	0.101	0.899
Effects on personal life	238.80	2,698.700	0.424	0.896
Supervision (technical)	240.20	2,796.700	-0.101	0.902
Job security	240.80	2,795.700	-0.131	0.901
Salary	243.40	2,824.300	-0.282	0.902
Organizational policy	240.20	2,921.200	-0.462	0.908
Interpersonal relationship (peer)	240.60	2,535.800	0.930	0.890
Interpersonal relationship (Subordinate)	241.60	2,874.300	-0.498	0.904
Working condition	239.80	2,767.200	0.012	0.900

ITEMS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Status	239.00	2,778.500	-0.040	0.903
Enforcement by University officials like wage cut if they didn't work	243.00	2,787.500	-0.112	0.900
Rewarding & penalizing instructors based on degree of performance	242.60	2,762.800	0.079	0.899
Effort-reward-effort technique like rewarding only money	242.40	2,779.300	-0.043	0.899
Carrot(e.g incentives) & stick(e.g demotion) techniques	243.20	2,792.700	-0.205	0.900
Be good/paternalistic techniques like providing good education & others	242.00	2,804.000	-0.500	0.900
Negative motivational techniques like coercion to work	242.80	2,746.700	0.165	0.898
Job enrichment motivational techniques like creating opportunities & others	242.40	2,843.300	-0.464	0.902
Focusing on trust& intimacy among instructors &officials	242.20	2,735.700	0.241	0.898
Fulfilling physiological needs , and other needs continuously	242.60	2,829.300	-0.356	0.902
What motivates instructors is situation	242.00	2,861.500	-0.613	0.903
Instructor's expectation of achieving the goal	241.80	2,882.700	-0.531	0.904
Instructor's having necessary knowledge, abilities, & skills to do research	241.60	2,890.800	-0.669	0.904
Degree of equity that instructors perceive in their work situation	241.80	2,873.700	-0.619	0.903
Providing an individual with extrinsic reward to perform	242.20	2,844.700	-0.511	0.902
Goal setting to achieve higher performance	242.00	2,804.500	-0.317	0.900
Financial incentives like fair salaries, medical reimbursement,& others	242.80	2,690.700	0.523	0.896
Non-financial inactivates like promotion & others	242.60	2,699.300	0.548	0.896
Noxious stimuli like fine/penalty and others	242.40	2,772.300	0.007	0.899
Punishment like suspension without pay	243.40	2,771.300	0.028	0.899
Removing previous rewards	243.80	2,747.700	0.286	0.898

Appendix 6B: RELIABILITY for item # 3/ status items (Based on 5-Points Likert Scale)

Case Processing Summary

		N	%
Cases	Valid	10	66.7
	Excluded(a)	5	33.3
	Total	15	100.0

a Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.375	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Not well developed (characterizes the status of educational research practices)	12.70	9.344	.000	.428
Limited to MA thesis/PhD dissertations (characterizes the status of educational research practices)	13.80	6.844	.075	.463
Low in quantity (characterizes the status of educational research practices)	13.10	6.989	.265	.259
Faced problems associated with quality (characterizes the status of educational research practices)	13.60	8.044	.242	.298
Insignificant in undertaking relevant research (characterizes the status of educational research practices)	13.60	5.822	.408	.107

Appendix 6C: RELIABILITY FOR ITEM # 20// Hindering factors items (Based on 5-Points Likert Scale)

Case Processing Summary

		N	%
Cases	Valid	14	93.3
	Excluded(a)	1	6.7
	Total	15	100.0

a Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.771	15

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Sex	45.86	89.824	.085	.788
Educational Level	45.43	78.725	.627	.737
Years of teaching experience in higher education	45.00	85.385	.412	.757
Field of specialization	44.79	76.027	.572	.738
Perception towards educational research	45.36	81.170	.484	.749
Interest to do educational research	45.21	76.489	.542	.741
Problem of personnel capacity	45.00	76.154	.576	.738
Lack of research infrastructures like computers, & others	44.00	87.538	.233	.771
Lack of research budget/fund	43.57	93.033	.103	.775
Work load/shortage of time like teaching load & others	44.57	91.495	.064	.784
Lack of publication outlets like scholarly journals	43.93	80.533	.567	.743
Lack of dissemination channels like workshops	43.86	89.670	.324	.765
Low job satisfaction	45.29	81.143	.418	.755
Poor organizational commitment	44.21	92.951	.020	.785
Lack of work motivation	44.93	77.302	.541	.742

Appendix 6D: RELIABILITY FOR ITEM # 27-29/motivational factors items (Based on 5-Points Likert Scale)

Case Processing Summary

		N	%
Cases	Valid	15	100.0
	Excluded(a)	0	.0
	Total	15	100.0

a Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.650	20

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Enforcement by University officials like wage cut if they didn't work	63.33	83.667	-.317	.709
Rewarding & penalizing instructors based on degree of performance	63.00	66.000	.361	.621
Effort-reward-effort technique like rewarding only money	63.13	78.838	-.143	.671
Carrot(e.g incentives) & stick(e.g demotion) techniques	62.93	63.352	.616	.590
Be good/paternalistic techniques like providing good education & others	61.73	67.781	.636	.606
Negative motivational techniques like coercion to work	63.80	79.457	-.169	.679
Job enrichment motivational techniques like creating opportunities & others	61.73	67.210	.445	.614
Focusing on trust& intimacy among instructors &officials	62.13	61.695	.545	.591
Fulfilling physiological needs , and other needs continuously	62.40	59.971	.604	.580
What motivates instructors is situation	62.27	75.067	-.010	.676
Instructor's expectation of achieving the goal	61.53	71.267	.227	.639
Instructor's having necessary knowledge, abilities, & skills to do research	61.53	71.410	.287	.634
Degree of equity that instructors perceive in their work situation	61.40	70.114	.350	.627
Providing an individual with extrinsic reward to perform	62.00	69.429	.437	.620
Goal setting to achieve higher performance	61.53	71.410	.357	.630
Financial incentives like fair salaries, medical reimbursement,& others	61.60	64.543	.479	.605
Non-financial inactivates like promotion & others	62.27	72.067	.162	.648
Noxious stimuli like fine/penalty and others	63.07	80.067	-.195	.684
Punishment like suspension without pay	63.53	67.695	.517	.611
Removing previous rewards	64.00	80.857	-.316	.676

Appendix 6E: Reliability for items # 3, # 20, and # 27-29// combine scales items (Based on 5-Points Likert Scale)

Case Processing Summary

		N	%
Cases	Valid	10	66.7
	Excluded(a)	5	33.3
	Total	15	100.0

a Listwise deletion based on all variables in the procedure.

Reliability Statistics

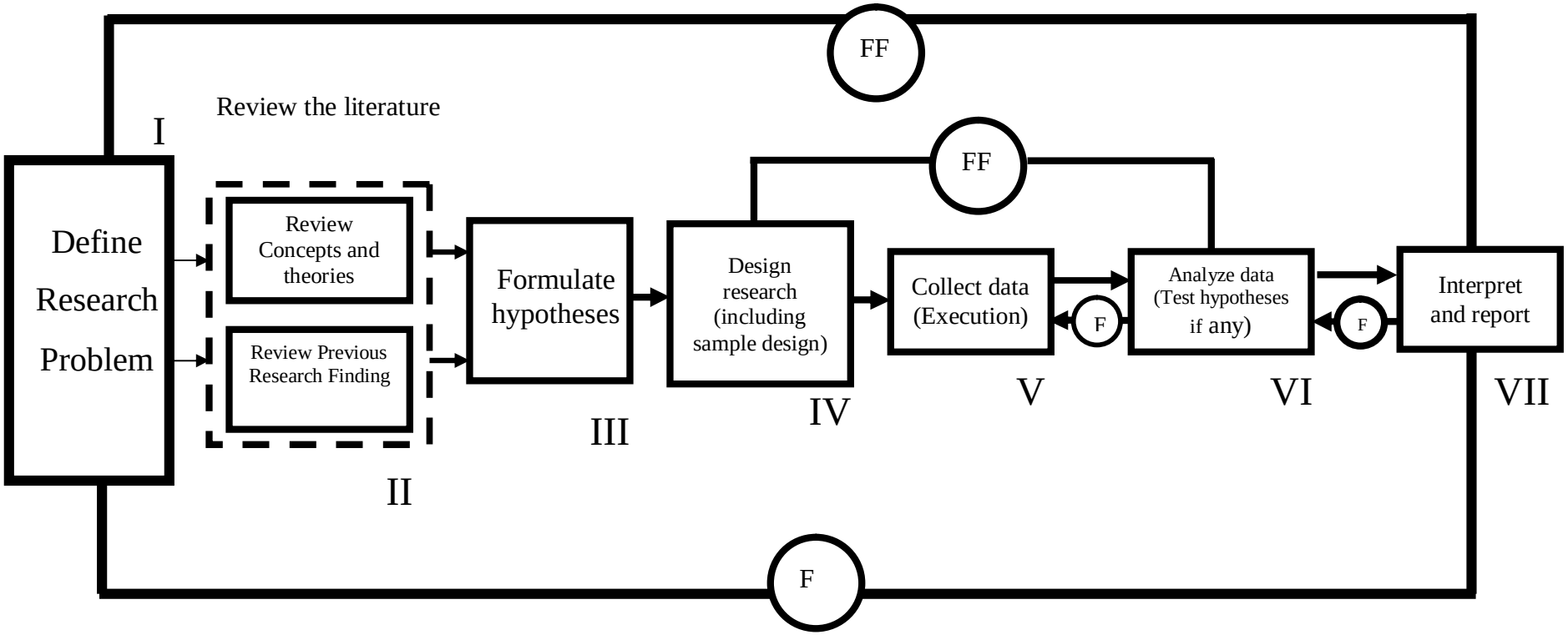
Cronbach's Alpha	N of Items
.536	40

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Not well developed (characterizes the status of educational research practices)	128.30	125.122	.438	.507
Limited to MA thesis/PhD dissertations (characterizes the status of educational research practices)	129.40	136.711	-.147	.566
Low in quantity (characterizes the status of educational research practices)	128.70	124.678	.295	.511
Faced problems associated with quality (characterizes the status of educational research practices)	129.20	120.178	.669	.487
Insignificant in undertaking relevant research (characterizes the status of educational research practices)	129.20	119.733	.440	.493
Sex	129.90	117.433	.362	.493
Educational Level	129.70	121.344	.357	.501
Years of teaching experience in higher education	129.30	132.233	.008	.541
Field of specialization	129.40	114.044	.454	.478
Perception towards educational research	129.60	132.711	-.029	.548
Interest to do educational research	129.20	124.844	.154	.525
Problem of personnel capacity	129.40	122.489	.248	.512
Lack of research infrastructures like computers, & others	128.60	108.267	.853	.437
Lack of research budget/fund	127.90	126.322	.444	.511
Work load/shortage of time like teaching load & others	129.10	141.433	-.280	.578
Lack of publication outlets like scholarly journals	128.60	117.156	.513	.482

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Lack of dissemination channels like workshops	128.40	132.044	.071	.534
Low job satisfaction	129.80	109.511	.696	.449
Poor organizational commitment	128.80	124.400	.275	.512
Lack of work motivation	129.10	124.322	.221	.517
Enforcement by University officials like wage cut if they didn't work	129.50	133.389	-.056	.553
Rewarding & penalizing instructors based on degree of performance	129.20	105.289	.837	.426
Effort-reward-effort technique like rewarding only money	129.50	124.722	.401	.507
Carrot(e.g incentives) & stick(e.g demotion) techniques	129.20	130.178	.067	.535
Be good/paternalistic techniques like providing good education & others	128.10	125.878	.412	.510
Negative motivational techniques like coercion to work	130.40	122.711	.364	.504
Job enrichment motivational techniques like creating opportunities & others	128.10	140.100	-.448	.561
Focusing on trust& intimacy among instructors &officials	128.50	139.611	-.243	.569
Fulfilling physiological needs , and other needs continuously	128.70	142.456	-.326	.579
What motivates instructors is situation	128.80	148.178	-.439	.601
Instructor's expectation of achieving the goal	128.10	130.544	.062	.536
Instructor's having necessary knowledge, abilities, & skills to do research	128.00	142.222	-.412	.572
Degree of equity that instructors perceive in their work situation	127.90	134.100	-.056	.544
Providing an individual with extrinsic reward to perform	128.60	135.156	-.107	.546
Goal setting to achieve higher performance	128.00	138.222	-.239	.558
Financial incentives like fair salaries, medical reimbursement,& others	128.10	136.322	-.139	.558
Non-financial inactivates like promotion & others	129.20	131.733	.006	.543
Noxious stimuli like fine/penalty and others	129.80	138.178	-.209	.562
Punishment like suspension without pay	129.90	129.878	.112	.530
Removing previous rewards	130.50	144.056	-.575	.575

Appendix 7: RESEARCH PROCESS IN FLOW CHART



Where F = feed back (Helps in controlling the sub-system to which it is transmitted)

FF = feed forward (Serves the vital function of providing criteria for evaluation)

Source: (Kothari, 2003: 14)

Appendix 8: Frequency distribution, descriptive and inferential statistics of the various motivation strategies (N=60)

List of motivation theories and corresponding strategies	Statistics																	
	(1)Frequency distribution(N=60)							(2)Descriptive Statistics(N=60)			(3)T-test				(4)Independent sample t-test		
		SA 5	Agr. 4	Unde. 3	Disa. 2	SD 1	T	$\overline{X}_T$	R	S		N	$\overline{X}_{GM(Yes/No)}$	S	t	df	Sig
Content Theory																	
Enforcement by University officials like wage cut if they didn't work	N	4	4	8	6	38	60	1.83	19	1.28	Yes	32	1.81	1.36	-.40	53	.691
	%	6.7	6.7	13.3	10.0	63.3	100				No	23	1.96	1.26			
Rewarding & penalizing instructors based on degree of performance	N	8	12	8	5	27	60	2.48	15	1.55	Yes	32	2.56	1.65	.30	53	.764
	%	13.3	20.0	13.3	8.3	45.0	100				No	23	2.43	1.41			
Effort-reward-effort technique like rewarding only money	N	3	8	24	15	10	60	2.65	13	1.07	Yes	32	2.88	1.13	1.77	53	.082
	%	5	13.3	40	25	16.7	100				No	23	2.35	1.03			
Carrot(e.g incentives) & stick(e.g demotion) techniques	N	6	4	19	15	16	60	2.48	14	1.24	Yes	32	2.59	1.34	.58	53	.566
	%	10	6.7	31.7	25	26.7	100				No	23	2.39	1.19			
Be good/paternalistic techniques like providing good education & others	N	28	17	10	3	2	60	4.10	5	1.06	Yes	32	4.13	1.10	.13	53	.901
	%	46.7	28.3	16.7	5	3	100				No	23	4.09	1.13			
Negative motivational techniques like coercion to work	N	2	4	9	20	25	60	1.97	17	1.07	Yes	32	2.16	1.11	1.59	53	.116
	%	3.3	6.7	15	33.3	41.7	100				No	23	1.70	.97			
Job enrichment motivational techniques like creating opportunities & others	N	29	20	4	3	4	60	4.12	4	1.16	Yes	32	4.03	1.20	-1.02	53	.312
	%	48.3	33.3	6.7	5	6.7	100				No	23	4.35	1.03			
Focusing on trust& intimacy among instructors &officials	N	36	11	7	2	4	60	4.22	3	1.19	Yes	32	4.28	.96	-.23	53	.822
	%	60	18.3	11.7	3.3	6.7	100				No	23	4.35	1.23			
Fulfilling physiological needs , & other needs continuously	N	26	12	5	10	7	60	3.67	11	1.47	Yes	32	3.59	1.43	-.79	53	.428
	%	43.3	20	8.3	16.7	11.7	60				No	23	3.91	1.51			
What motivates instructors is situation	N	22	20	10	3	5	60	3.85	8	1.22	Yes	32	3.53	1.27	-2.25	53	.028
	%	36.7	33.3	16.7	5	8.3	100				No	23	4.26	1.054			

Continued

List of motivation theories and corresponding strategies	Statistics																
	(1) Frequency distribution(N=60)							(2) Descriptive Statistics(N=60)			(3)T-test				(4)Independent sample t-test		
		SA 5	Agr. 4	Unde 3.	Disa. 2	SD 1	T	$\overline{X}_T$	R	S		N	$\overline{X}_{GM(Yes/No)}$	S	t	df	Sig
Process Theory																	
Instructor's expectation of achieving the goal	N	24	25	5	4	2	60	4.08	6	1.03	Yes	32	3.94	1.134	-1.11	53	.272
	%	40	41.7	8.3	6.7	3.3	60				No	23	4.26	.964			
Instructor's having necessary knowledge, abilities, & skills to do research	N	30	25	3	2		60	4.38	1	.74	Yes	32	4.25	.803	-1.54	53	.129
	%	50	41.7	5	3.3		100				No	23	4.57	.662			
Degree of equity that instructors perceive in their work situation	N	26	22	11	1		60	4.22	2	.80	Yes	32	4.00	.842	-2.19	53	.033
	%	43.3	36.7	18.3	1.7		100				No	23	4.48	.730			
Providing an individual with extrinsic reward to perform	N	10	27	12	7	4	60	3.53	12	1.11	Yes	32	3.63	1.040	.49	53	.620
	%	16.7	45	20	11.7	6.7	100				No	23	3.48	1.123			
Goal setting to achieve higher performance	N	20	24	9	6	1	60	3.93	7	1.02	Yes	32	3.75	1.136	-1.49	53	.142
	%	33.3	40	15	10	1.7	100				No	23	4.17	.887			
Reinforcement theory																	
Financial incentives like fair salaries, medical reimbursement,& others	N	21	20	6	5	8	60	3.68	10	1.38	Yes	32	3.69	1.203	-.62	53	.54
	%	35	33.3	10	8.3	13.3	100				No	23	3.91	1.474			
Non-financial inactivates like promotion & others	N	20	21	6	7	6	60	3.70	9	1.32	Yes	32	3.84	1.221	.65	53	.52
	%	33.3	35	10	11.7	10	100				No	23	3.61	1.469			
Noxious stimuli like fine/penalty and others	N	2	2	17	14	25	60	2.03	16	1.07	Yes	32	2.06	1.134	.06	53	.95
	%	3.3	3.3	28.3	23.3	41.7	100				No	23	2.04	1.065			
Punishment like suspension without pay	N	2	1	10	16	31	60	1.78	20	1.01	Yes	32	1.88	1.212	.79	53	.43
	%	3.3	1.7	16.7	26.7	51.7	100				No	23	1.65	.714			
Removing previous rewards	N	2	4	12	12	30	60	1.93	18	1.13	Yes	32	2.09	1.329	1.12	53	.27
	%	3.3	6.7	20	20	50	100				No	23	1.74	.864			

Appendix 9: IER letter of support and AU approval for securing relevant HR data

Acronyms

AAU	Addis Ababa University
AECD	Adult Education and Community Development
AU	Ambo University
BPR	Business Process Re-engineering
CAVS	College of Agriculture and Veterinary Sciences
CBR	Community Based Research
CNCS	College of Natural & Computational Science
CSSH	College of Social Science and Humanities
EAJS	East African Journal of Sciences(EAJS)
EDPM	Educational Planning & Management
ERP-	Educational Research Practices
ESDP	Education Sector Development Program
ETB	Ethiopian Birr
FDRE	Federal Democratic Republic of Ethiopia
GA	Graduate Assistant
GADA	Generation in Action Development Association
HEIs	Higher Education Institutes
HESC	Higher Education Strategy Center
HR	Human Resource
IEPS	Institute of Education & Professional Studies
IGNU	Indrain Gandi National Open University
IUCEA	Inter University Council of East Africa
KM	Kilometer
MOE	Ministry Of Education
NGO	Non-Governmental Organization
NTP	New Education & Training Policy
SPSS	Statistical Packages for Social Sciences
SWOT	Strengths, Weaknesses, Opportunities, and Treats
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nation Children's Education Fund

DECLARATION

I the undersigned, declared that this thesis is my original work, has not been presented for a degree in any other university and that all sources of material used for the thesis have been properly acknowledged.

Name: Tariku Kassa Ambaye
Signature: _____
Date: _____

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

Name: Dessalegn Chalichissa(Dr.)
Signature: _____
Date: _____