

**The Status and Challenges of Educational Research  
Undertaking and Dissemination at College of Education and  
Behavioral Studies, Addis Ababa University**

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**A Thesis Submitted to  
The Institute of Educational Research**

**Presented in Partial Fulfillment of the Requirements for the Degree of  
Masters of Arts (Educational Research and Development)**

**Addis Ababa University  
Addis Ababa, Ethiopia  
June, 2014**

**Addis Ababa University**  
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## **ABSTRACT**

*The Status and Challenges of Educational Research Undertaking and Dissemination at CEBS, AAU*

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*Addis Ababa University, 2014*

*The general objective of this study was to investigate the status and determinants of educational research undertaking and dissemination in Addis Ababa University. In doing so, the independent variables were categorized in to two: individual and environmental variables while the dependent variable was research output. Mixed methods approach was employed for the study, which was mainly quantitative, but also used qualitative approach for triangulation purposes. The study found out that the status of educational research practice at CEBS was at medium level and the level of research results dissemination as it was low. Furthermore, it was found out that career and self knowledge variables were the strongest predictors of research output. Thus, it was recommended that the university should improve incentive and reward mechanism to encourage its researchers; the university should reduce teaching workloads for those teachers who showed high interest and commitments in conducting educational research by creating sort of criteria/system, involve postgraduate program students to help lecturers in their research work. CEBS needs to exert further effort to find additional fund through partnership and networking with national and international organizations and institutions. Finally, it was recommended that AAU, at larger level, and CEBS in particular, should conduct self-evaluation of faculty research productivity.*

## **ACKNOWLEDGMENTS**

I first and foremost acknowledge my advisor Dr. Berhanu Abera for his unreserved professional guidance and support all the way from proposal to the final study.

I would also like to thank all my instructors at IER, specially, Dr. Dessalegne Chalchisa for his insightful input and assistance during the study. Also, my sincere appreciation goes to all study participants for their time and willingness to give information relevant to the study. I am especially grateful to Dr. Teshome Tola (Associate Dean, Research & Technology Transfer) for his unreserved support in arranging interviews with CEBS research committee members and providing me with documents relevant to the study.

I am grateful to my family for their great support and encouragement during my study. I am blessed to have such a loving and caring family.

Finally, I would like to give all the glory and honor to the almighty God who helped me throughout my study.

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## Acronyms

|       |                                                              |
|-------|--------------------------------------------------------------|
| AAU   | Addis Ababa University                                       |
| BPR   | Business Process Re-engineering                              |
| CEBS  | College of Education and Behavioral Studies                  |
| DCTPD | Department of Curriculum & Teachers Professional Development |
| DEDPM | Department of Educational Planning and Management            |
| DSNE  | Department of Special Needs Education                        |
| DSMED | Department of Science & Mathematics Education                |
| DSSLE | Department Social Science & Language Education               |
| E.C   | Ethiopian Calendar                                           |
| EGESE | Evaluative Research of General Education System              |
| ESDP  | Education Sector Development Program                         |
| ETD   | Electronic Theses and Dissertations                          |
| ETP   | Education and Training Policy                                |
| FDRE  | Federal Democratic Republic of Ethiopia                      |
| HEIs  | Higher Education Institutes                                  |
| HERQA | Higher Education Relevance and Quality Agency                |
| ICT   | Information Communication Technology                         |
| IER   | Institute of Educational Research                            |
| MOE   | Ministry Of Education                                        |
| NGO   | Non-Governmental Organization                                |
| SP    | School of Psychology                                         |
| SPSS  | Statistical Packages for Social Sciences                     |
| VPRTT | Vice President for Research and Technology Transfer          |

## **CHAPTER ONE: INTRODUCTION**

### **1.1. Background of the Study**

Research and teaching are the two principal and intertwined activities carried out by any university. In principle, all academic staff members are required to do as much research, if not more, as teaching; an approach traditionally followed by universities worldwide (Derebssa, 2004). Primary roles of academic staff are the creation and dissemination of knowledge through activities in teaching, research and knowledge transfer. The importance of educational researches, which is one of academic staff's roles, is highly recognized for its positive bearing on the improvement of quality instruction, student achievement, and teaching strategies. Research findings are utilized as a basis towards improved instructional practices and areas of concerns for community services.

In line with this, Derebssa (2000) and Tsegay (2000) mentioned that there should be a strong relationship between Higher Education Institutions (HEIs) and educational research activities. Research and teaching are said to go together in an essential, symbiotic way, leading to the assumption that "the good researcher is a good teacher" (Barnett, 1992). The quality of teaching is strongly related to the research because active involvement in the research process directly improves the quality of teaching, during research academic work in role of learner and it helps them to learn new learning experiences. Research provides an opportunity to teachers to develop his/her knowledge within the discipline, to develop the course and supervision (Rowland, 1996).

According to Creswell (2005), educators need to be consumers and producers of research for the reasons that educational research serves the purposes of improving practice, adding to knowledge and addressing gaps in knowledge. Research improves practice, informs policy debates and builds student research skills. It also provides a means for educators to uncover new world of information.

Educators produce research to verify the effectiveness of teaching and learning ideas and practices already in use, to discover new ideas and practices, to develop practices that simplify people's lives, and discover counterintuitive practices (Hittleman and Simon, 2002).

Cognizant of this fact, the Ethiopian education policy has given prominent place for research. It indicates that research is important component for educational quality improvement. It states that teachers in all levels have responsibility to conduct research for the development of their academic profession and educational potential in enhancing the quality of education (MOE, 1994). Ethiopian Higher Education Proclamation (2009) also acknowledge every institution shall undertake research that shall take into account the priority needs of the country and enable the country to solve its challenges and build its capacity through technology transfer. It further states that institutions have to facilitate means of dissemination of the research findings to end-users.

In line with the Higher Education Proclamation, Education Sector Development Program (ESDP IV) also emphasizes the development of research capacity throughout the system. As stated in the document “A framework for national research priorities will be developed in line with which HEIs will develop their own priorities. In addition, a system for a posteriori evaluation of research will be established. Universities will receive support for the establishment of research policies, including through innovation funds. . . The research and development system will get due attention to have its own budget and capacity building program will be arranged” MOE (2010, p. 65).

According to the strategic plan of Addis Ababa University (AAU), the vision of the Addis Ababa University is “... to be a pre-eminent African Research University dedicated to excellence in teaching, critical inquiry, creativity and public action in an academic community that cultivates and celebrates diversity” (AAU, 2013a, p. 1).

The Senate Legislation of AAU also states that an academic staff in a teaching faculty is expected to devote 25% of his time to research and a staff of a research institute is expected to devote 75% of his/her time to research (AAU, 2013b). The Research and Publications Committee has the responsibility to formulate strategies for promoting research and

dissemination of research results and also approve allocation of funds for research institutes through the Senate. It is also clearly articulated in the university website that the university has given a distinctive emphasis to research dissemination to end-users. The thematic research projects serve not only the mission of knowledge production and dissemination but also solving current and anticipated problems of end users (AAU, 2014a).

Specifically, one of the missions of the College of Education and Behavioral Studies (CEBS), AAU is to undertake educational research to generate new and innovative approaches; and enhance the dissemination of outputs through nationally and internationally recognized journals and related publications. It also aspires to be the center of excellence in educational research.

Despite all the clearly articulated statements and much effort made, the practice of educational research undertaking and dissemination is still a concern. Although considerable efforts have been made in the production of research, the problem still persists in the development of useful research findings and their availability to those who will most benefit from them. Moreover, the field of research utilization is still in its infancy stage. As Carol Weiss observed some decades ago, “research is not used as a can opener is used” (cited in Huberman, 1987, p. 24).

Therefore, it is crucial for educators and all other concerned bodies to know the status and challenges of educational research productivity. Without further investigation of the problems and taking due action, the use of educational research will be minimal or none. Thus, it is with this concern that this study brings to light the status and challenges of educational research undertaking and dissemination at CEBS, AAU.

## **1.2. Statement of the Problem**

Involvement in research brings the researcher face-to-face with all the challenges in undertaking the research and disseminating its results. But research can only be meaningful when these challenges are overcome. Despite the efforts made at different levels to increase research productivities, studies consistently show a gap between the availability of scientific knowledge and its dissemination.

As revealed by the quality audits of Ethiopian universities conducted by HERQA, regardless of efforts made by Ethiopian universities, there are a number of hurdles to be tackled in research productivity. Most staff in the audited universities reported that it is very difficult for them to actively engage in research. There are no incentive mechanisms to encourage them and the heavy teaching load made it difficult to dedicate their time for research as prescribed in the universities' legislation. Lack of training in research skills is also mentioned (Tesfaye & Kassahun, 2009).

Endaweke (2009) indicated the further deterioration of output from the educational system of Ethiopia. The signs of deterioration of the quality of higher education in Ethiopia are already evident in the low quality of research carried out by staff in the Higher Education Institutions, among others. A case study at Jimma University (Melese, 2012) confirms that university teaching staff is minimally or not engaged in research, despite statements in e.g. university regulation mentioning that every teaching staff should devote 25% of working time to conducting research. As Derebssa (2004) clearly stated, while research has direct and quick impact on practice in higher institutions, its applicability is generally limited. Its status has been uncertain and it has functioned in a milieu of insecurity and isolation.

The other major criticism of research is the often distant relationship of researchers and potential users of their research results. For research to be relevant, it must be disseminated to users and linked to practice. If research results are not easily accessible and usable by those who need them, they are of limited practical use. Although efforts have been made to disseminate research results in local and international journals and although conferences are organized by various faculties, all these are seen as inadequate to bridge the gap between the available information and the information utilized by various concerned bodies to direct policy and administration. Damtew (2007) pointed out that in much of Africa research communication tools are in dismal shape. Capacities to generate knowledge as well as access to new knowledge are limited in the continent.

As the HERQA report revealed, some Ethiopian universities have lack of local journals or problems of sustaining local journals as reasons for the paucity of research. There are not many

local research symposia and workshops where the staff can present their research. The audited universities did not have a culture of publishing annual research reports (Tesfaye & Kassahun, 2010). Similarly, studies conducted by Asrat (2007) at Haramaya University; and Birhanu (2009) at Colleges of Teacher Education in Tigray also showed that instructors lack opportunity to disseminate their research works and results.

Estabrookset et al. (2003) acknowledged that the study of barriers to ‘educational’ research productivity is still in its infancy and requires new approaches to generate knowledge. When we look at Ethiopian universities, little research has been done in this area comparing to the significance of the issue. Though there are number of studies conducted in the area of ‘research’, few of them (Amare (2005) at Bahir Dar University, Asrat (2007) at Haramaya University and Tariku (2012) at Ambo University) have focused particularly on ‘educational’ research.

When it comes to CEBS at AAU, there are very few studies that touched upon the issue (e.g. Amare 2000; Taye 1993, Tesfaye 2011). Amare (2000) using qualitative content analysis procedure, attempted to provide an assessment of Ethiopian Journal of Education (EJE) which is published by IER. Similarly, Tesfay (2011) highlighted the state of educational research and EJE’s contributions to educational research and the challenges it encountered. Taye (1993) on his side, conducted a comparative study of research activities among AAU faculties. The studies by these Ethiopian scholars have been conducted more than ten years ago except Tesfaye’s recent study. Thus, the current study tries to fill the research gap by assessing the status and challenges of educational research undertaking for the last ten years. Moreover, this study uses a conceptual framework to show the relationships among variable.

### **1.3. Objectives of the Study**

The general objective of this study is to investigate the status and determinants of educational research undertaking and dissemination in Addis Ababa University. Its specific objectives are to:

1. Assess the degree to which AAU faculty are engaged in educational research.
2. Describe the efforts made so far to effectively disseminate educational researches.

3. Investigate the relationship between the independent variables and the dependent variable (research productivity).
4. Find out the salient variables to educational research productivity.

#### **1.4. Research Questions**

The study attempted to answer the following basic questions:

1. What is the current status of educational research practices in AAU?
2. To what extent are educational research outputs disseminated?
3. What are the major determinant factors to educational research productivity in AAU?
4. What are the salient predictors for educational research output?

#### **3.1. Significance of the Study**

Knowledge of research performance of the faculty will enable administrators and faculty members to know where they stand in research activities. The study result will also contribute to the identification of potential determinant factors that hindered the active involvement of higher education instructors in educational research in general and AAU in particular.

Although this study focused at one college for the rationale of time and scale, the study has been conducted in such a way that it is valuable to other colleges in the university as well as other universities facing similar situation. Findings from this research will, therefore, serve as a stepping-stone for further research in this area.

#### **3.2. Delimitation of the Study**

This study was delimited to College of Education and Behavioral Studies at AAU since educational research is primarily expected from this college. Therefore, it may not be generalizable to other colleges/institutes at Addis Ababa University or other Higher Education Institutions (HEIs) of the country.

### **3.3. Limitation of the Study**

Most of the time many instructors' offices were closed and it has been a challenge to reach them. But through some instructors whom the researcher knows and also with the help of department heads it was able to address adequate number of instructors. Moreover, some respondents were not willing to fill the questionnaire and didn't return within the expected time due to overloading with teaching and other duties. Nevertheless, the researcher tried her best to overcome the challenge by frequent visit, explanation of the study and via department heads.

### **3.4. Operational definitions**

Research productivity: The totality of research performed by academics in universities and related contents within a given time period.

Salient variables: Independent variables that could predict the results of a dependent variable.

Dissemination: Purposive, goal-oriented communication of information or knowledge.

## **CHAPTER TWO: REVIEW OF RELATED LITERATURE**

This chapter reviews relevant literature works and provides a theoretical rationale for this study. Accordingly, it discusses the concept of educational research and its typologies, the importance of educational research, research productivity and its measurement, determinant factors of research productivity and, research dissemination, respectively. Then, it presents the status of educational research in HEIs in Ethiopia followed by an overview of research undertaking at Addis Ababa University.

### **2.1. The Concept of Educational Research**

Conceptually, educational research has been defined by different scholars in various ways. For instance, Gay (1981, p. 6) defined educational research as: ‘The formal systematic application of the scientific method to the study of educational problems’. Ary (1985, p. 4) similarly sees the concept as: “When the scientific method is applied to the study of educational problems, educational research is the result.” Moreover, Nisbet and Watt (1984) commented that educational research should be restricted to areas which involve quantitative or scientific methods of investigation. These similar definitions by the three scholars are enough to reveal the common belief that educational research should attempt to mirror or mimic so-called scientific methods.

But, Wellington (2000) argues that there is no one scientific method; there are as many methods as there are sciences and scientists. Moreover, the view of science, and therefore educational research, as being hypothesis-driven has no foundation. Some scientific research may be driven by hypothesis but some is not. Some scientists do experiments and control variables, some do not. Wellington (2000) further criticizes the confusion of the terms ‘quantitative’ and ‘scientific’, as if the two were synonymous. He argues quantitative data can and should be involved in educational research without thereby inviting the accusation that it is trying to mimic the sciences, or that it is in some way being ‘positivist’. Educational research should not attempt to

mimic some outmoded view of scientific method, but that does not prevent it from using quantitative data where appropriate. Similarly, Lincoln and Guba (1985, p. 11) say “it remains a mystery to me why those who work in education should attempt to aspire towards science when scientific methods, processes and codes of conduct at best are unclear and at worst lack the objectivity, certainty, logicity and predictability which are falsely ascribed to them. Surely educational research would do better to aspire to being systematic, credible, verifiable, justifiable, useful, valuable and trustworthy”.

Wellington (2000) and Lincoln & Guba (1985) share the idea by defining educational research as a ‘systematic’ activity rather than ‘scientific’. To Stenhouse (1985) educational research is seen as a systematic activity that is directed towards providing knowledge, or adding to the understanding of existing knowledge which is of relevance for improving the effectiveness of education. Bassey (1990, p. 35) elaborates on this by defining educational research as “systematic, critical and self-critical inquiry which aims as to contribute to the advancement of knowledge”. The adjective ‘critical’ implies that the data collected and samples used in the research are closely scrutinized by the researcher. ‘Self-critical’ implies, similarly, that researchers are critical of their own decisions; the methods they choose to use, their own analysis and interpretation and the presentation of their findings.

From the above definitions by the different scholars, one can understand that though there are arguments on the approach to educational research as ‘systematic’ or ‘scientific’ but, there is a common agreement that educational research is an enquiry aimed at informing educational judgments and decisions in order to improve educational action. Furthermore, the terms ‘critical’, ‘self-critical’, and ‘advancement of knowledge and wisdom’ used by the scholars above are each value-laden. These expressions indicate that educational research is a kind of value-laden research that should have immediate relevance to teachers and policy makers, and is itself educational because of its stated intention to ‘inform’. It is the kind of research in education that is carried out by educationists.

## **2.2. Importance of Educational Research**

Educational research has much significance in different ways. To mention some, the quality of education depends and builds on the quality and relevance of available educational research. Educators strive for continual improvement. This requires addressing problems or issues and searching for potential solutions. Through research we develop results that help to answer questions and improve the quality of education. According to Derebssa (2000), research enhances the quality of instruction. Newness is brought about as a consequence of research. Research results generated by teachers or others in the field form the basis for updating content of lectures and practical work. The issue of quality education is a current agenda almost to all developing countries including Ethiopia and research has been taken as one of the major tool for the improvement of the educational process. As indicated by Seyoum (1998), understanding the role of research to quality education, the Ethiopian government has responded by launching nation-wide research studies at different times, for instance, the Education Sector Review (ESR, 1972), the Evaluative Research of General Education System (EGESE, 1983) and the Education and Training Policy (ETP, 1994) were the major studies carried out for the purposes of quality education.

Research also gives policy makers informed knowledge as to how to make decisions. Decision-making in education should strategically aim at improvements in education and training, and for this purpose we need research and evidence. Maximizing the use of research-based knowledge for developing policy and practice at the national levels would improve the quality and governance of education systems. This in turn would contribute to realizing the main aim of the Education and Training (Marzieh, 2013).

Moreover, faculty members who are up-to-date with current research, they can assist their advisees with current theoretical and methodological inputs and resourcefully help research students (Derebssa, 2004). Faculty members and research coordinators can also play an inspirational role by being role models through their successful researches (Gay, 1981).

Research has also to do with faculty promotion. As (Derebssa, 2004) said, promotion in Higher learning Institutions is largely based on contribution to knowledge through research and publications. “No research no paper, no paper no promotion”. To move up the academic ladder, teachers must be engaged in productive research. It is also clearly stated in the Ethiopian Education and Training Policy (ETP) that practicing educational research has wider and fundamental benefit particularly for the teachers professional and career development in promoting from one stage to the next (MOE, 2002). Similarly, AAU has indicated in its senate legislation that publication of research findings in reputable journals is a major condition for promotion of the university academic staff (AAU, 2013b).

In general, the importance of educational research is indubitably immeasurable that cannot be limited to what discussed above. The benefits range from individual teachers, students, institutes and to a country, at the bigger level.

### **2.3. Research Productivity and It's Measurement**

Research Productivity is a combination of two words “Research” and “Productivity. Research means very careful, observant, and vigilant study of phenomena, particularly to search and find out new particulars, information and facts. While Productivity means the total production compared with inputs or consumption over the same period of time, which serves as a measure of whether the producer’s production process is working efficiently (Witzel, 1999).

With reference to higher education, research productivity can include research publication in professional journals and in conference proceedings, writing a book or chapter, gathering and analyzing original evidence, working with post-graduate students on dissertations and class projects, obtaining research grants, carrying out editorial duties, obtaining patents and licenses, writing monographs, developing experimental designs, producing works of an artistic or creative nature, engaging in public debates and commentaries (Creswell, 1986). Similarly, Print and Hattie (1997, p. 454) describe research productivity as “the totality of research performed by academics in universities and related contents within a given time period’. William (cited in

Wichian et al., 2009) also noted that research productivity could be defined in terms of research product and research effort, to the extent of which a researcher produces. According to Boice (1987), productivity should emerge from hard work, and a fair schedule for research activity should utilize a benchmark that encourages a struggling researcher to relate to their current level of activity.

Research productivity in academic institutions is reflected in the number and quality of articles published by the affiliated faculty. Often, departments evaluate their faculty on their “publication count” (Jauch and Glueck, 2010). Scholars suggests that research is not done until it is published and publication is becoming one of the most important requirements of faculty reward system like tenure, promotion, and other recognitions (Blackburn & Lawrence, 1995).

According to Middaugh (2001), publication count could be in terms of refereed and non-refereed journal, articles, books, book review, book chapters, monographs, conference papers, and research proposals written to receive external and internal grants. Similarly, Rotten (1990) stated that a universal approach to measuring research productivity was to count the number of books, articles, technical reports, bulletins, and book reviews published, as well as presentations given and grants received through reviewing curriculum vitae or other print materials.

Collins (1993) suggested that the easiest way to gather publication counts is to ask respondents to self-report the number of publications produced for a particular period of time. For instance, Sax et al. (2002) consider research productivity as an average number of published research report in the last two years. However, counting all publications equally may be simplistic because it ignores the quality of the publication. One method of adding quality into self-reported counts is to define eligible publications carefully. Faculty members can be asked to list non-refereed publications separately from refereed journals. Single authored papers can be distinguished from multiple-authored ones.

Thus, based on the review of the related literature above, this study assesses the status of research productivity of lecturers at CEBS in terms of their self-reported number of publications (publication count). As the literature suggests, in order to further assess their research effort,

unpublished research works, ongoing research works and research works submitted for publications were also taken in to consideration.

## **2.4. Determinant Factors of Research Productivity**

There are numerous factors that have been found to be associated with research productivity. According to Blackburn and Lawrence (1995), the major factors that are assumed to explain the variance in individual research productivity are individual variables and environmental variables. The individual factors are characteristics of faculty members and it includes socio-demographic data (sex, age and marital status), career variables (career age, educational qualification, prestige of the institution faculty member attended graduate school, academic rank). The environmental characteristics are the institutional resources, norms or physical plant that will limit or enhance faculty productivity (Blackburn & Lawrence, 1995).

When Fox (1996) studied members of the science faculty, there appeared to be three categories of correlates of research productivity: individual characteristics (such as psychological characteristic, work habits and demographics), work environmental factors and reinforcing feedback (colleagues and mentorship). Williams (2003) investigated the factors related to research productivity of human resource education and workforce development in the postsecondary faculty, and as a result classified related factors into three categories: environmental factors, institutional factors and individual interest and ability factors.

For the purposes of the present study, the determinant factors for research productivity have been classified into two main parts: individual factors and environmental factors as presented by Blackburn and Lawrence (1995).

### **2.4.1. Individual Factors**

The individual factors that are socio-demographic data (sex, age and marital status), career variables (academic origin, educational qualification, prior publication record, career age and academic rank) are discussed as follows.

#### **2.4.1.1. Socio-demographic Factors**

Socio-Demographic variables are the exogenous personal variables of academic member, including age, gender and marital status. Age has been studied in numerous studies with conflicting results. According to Creswell (1985), growing old impairs performance, though performance improves with experience. Similarly, Bland and Berquist (1997) indicated that the average productivity of faculty seems to decrease with age, however, many senior faculty members remain quite active in research and their outcomes can be comparable to those of younger faculty members. Whereas, Williams (2000) studied academic lecturers in the Human Resource Development Faculty in the United States and found no significant relationship with age. For Fox (1985), the association of age and productivity is neither linear nor monotonic.

The relationship between gender and research productivity has been studied by different scholars. Again, these findings are sometimes contradictory and sometimes show positive correlation. For some researchers, sex correlates with faculty research productivity. There is a large gap between the proportion of women and men faculty who have published a large number of articles in academic or professional journals (Creamer, 1998). Studies in research productivity generally reveal that women publish less than men but the literature is not as clear about the reasons for the differential output (Creswell, 1985; Fox, 1985). When Long & Fox (1995) explain the reason, gender differences in institutional rewards, such as tenure and salary, remain even when publishing productivity is controlled. Women generally receive fewer resources and recognition than men for comparable productivity. The relative absence of the voices of women and minorities is explained in part by the fact that few women and minorities are among prolific

authors. Their under- representation among the prolific and over-representation among non-publishers is also indicated as a major reason for the characterization of faculty women as being less productive than faculty men (Cole & Singer, 1991).

However, Allen (1990) found no difference between men's and women's research outcome in Australian Universities. Similarly, Omundson and Mann (1994) found no gender difference in a Social Work Faculty. McNamee et al., (1990) also found no gender differences in a Sociology Faculty and Rieger (1990) found likewise for an Education Faculty. For Creamer (1998), comparing men and women faculty research productivity is inappropriate unless some variables are controlled. In higher education, most faculties are male and the number of publication of women faculty is far less than male faculty publication. Thus, it should be noted that the academe is influenced by males.

Examining marital status, Astin (1978) says that married women publish more than single women. However, Creamer (1998) discovered that there was either no significant effect or a positive effect on publishing productivity for married women. Bassara (1979) noted that some women faculties postpone marriage until they publish enough to earn tenure and the academic rank they desire. While McKenzie (1986) found a significant positive effect, Kyvik (1990), on his hand, documented a significant negative effect on publishing productivity. Hence, the different studies results by these scholars indicate that the impact of marriage on research productivity is still controversial.

#### **2.4.1.2. Career Variables**

Professional Career variables include such as academic origin, educational qualification, prior publication record, career age, and current academic rank can also affect one's research productivity.

The term academic origin is defined as the college, university or other academic institution from which an academic member graduated or received his/her highest degree (Rhodman, 2002).

Graduate schools where the faculty member earned the highest degree influence the research productivity. Faculty members who are trained in research-oriented universities will have the opportunity to engage in research. After graduation, they will have the skills and the scholarly network that assist them to conduct research and disseminate their findings. The top academic institutions generally produce a high level of research productivity because high-status universities enjoy advantage in terms of financial resources and research support that encourage publication (Konrad & Pfeffer, 1990).

Collins (1993), in his study of faculty research productivity, found out that academic faculties who earn a PhD degree have been associated with higher levels of faculty research productivity. Consequently, it appears that earning a PhD apparently teaches faculty members those academic norms and values needed for high research productivity. The attribute of accumulative advantage makes it easier to achieve success in publishing because of prior research project experience, research membership, development of research skills, collaboration on research project and research sponsorship (Fox 1996).

Some scholars also indicated that research productivity is influenced by previous publication record. Those who publish more at an early age continue to publish (Blackburn & Lawrence, 1995). The attribute of accumulative advantage makes it easier to achieve success in publishing because of prior research project experience, research membership, development of research skills, collaboration on research project and research sponsorship (Creswell 1985 and Fox 1996).As (Blackburn and Lawrence, 1995) indicated, dissertation involvement and effort in research or advising students predict faculty research productivity.

Academic rank in higher education covers from an instructor to full professor and awarded based on the standard set by the institution. According to Creswell (1985), faculty members with higher rank do publish and they are more productive than those with lower academic rank. Baldwin & Blackburn (1981) also said that faculty rank should predict research productivity in a relatively linear fashion, so that faculty in higher ranks should demonstrate higher productivity than those in lower ranks. Similarly, Fox (1985) indicated that institutions can maximize faculty productivity by using the reward structure for promotion. On the other hand, Cole and Cole

(1973) argue those faculties do not publish to earn rewards. If institutional rewards like tenure and promotion are the motivation behind faculty productivity, publication performance would have declined after earning the desired status. However, faculty productivity is motivated by “sacred spark” and the inner drive because they love what they do as scholars. On the same line, a research by Walsh & Walkenbach (cited in Tien, 2000) shows a sharp decline in productivity after tenure.

#### **2.4.1.3. Self Knowledge**

Blackburn & Lawrence (1995) define self-knowledge as one’s understanding of self, or self-referent thought. It includes self-perceived beliefs, attitudes and values, such as one’s efficacy as a researcher and one’s level of ambition and persistence. Self-knowledge is a measure of self-image and self-assessed competence, and sense of efficacy.

In his social cognitive theory, Bandura (1991) says that a person’s behaviour is motivated and regulated by self-evaluation reactions to their own actions, and therefore, self-directedness partially determines the course of one’s behaviour. People will participate in and try to deal with situations that they have ability to handle, but avoid situations that they perceive as being beyond their capabilities.

Bandura (1997, p. 3), in his theory, describes self-efficacy as “confidence in one’s capabilities to organize and execute the courses of action required to produce given attainments”. Self-efficacy theory helps us to demonstrate how much effort people will expend and how long they will persist in the face of difficulties (Bandura 1977), and helps us to predict how a person’s level of effort and persistence on a task will vary in relation to their level of goal commitment. This suggests that the higher a person’s perceived self-efficacy, the greater is the potential for performance related accomplishments (Bandura, Reese & Adams, 1982). Massy and Widgren (1995) found faculty members’ self-perceptions closely related to research, but on a narrow sample with limited generalizability.

#### **2.4.1.4. Social Knowledge**

Blackburn & Lawrence (1995), define Social knowledge as "faculty perception of their environment" (institutional and collegial support, colleague commitment to the roles, beliefs about what the institution prefers). It refers to how faculty perceive the environment, for instance, how supportive one's institution or colleagues are of research, and what work activities are valued by the university administration for instance time allocation for teaching, research and community service. Williams (2003) found that the balance of time spent in teaching, research, service and administration can explain a significant proportion of the variance found in research productivity, while total work hours did not explain a significant proportion of variance. On the other hand, Kotrlik et al., (2002), found that time allocated to research did not relate specifically to research productivity.

Blackburn and Lawrence (1995) indicated that social knowledge is a factor that can also extend beyond the work environment on campus to the lecturer's home. This is important to know because wider social support has also been shown to reduce dysfunctional stress. They further found out that Self-knowledge as a variable had the strongest influence on social knowledge. Whereas, social knowledge variables were not strong predictors of behaviour.

Behavior is the specific activities a faculty member engages in as well as the levels of effort expended. It refers to the percentage of effort allocated to research, grants, proposal writing (Blackburn and Lawrence, 1995). Blackburn and Lawrence (1995) show that the dynamic interaction between self-knowledge (self judged competence) and social-knowledge (perceived institutional expectation given to a role) explains faculty behavior. In turn, the behavior affects research productivity. In the theoretical framework, the behavior variable set was the strongest predictor of faculty research output.

## **2.4.2. Environmental Factors**

According to Blackburn and Lawrence (1995), the environmental variables include environmental conditions, environmental response and social contingencies. Several studies suggest that environmental variables are powerful predictors of research productivity (Blackburn & Lawrence (1995); Hekelman et al., (1995); Kuh & Whitt (1998)).

Environmental condition consists three sets of features: structural features of the university or college (fiscal well being, location, composition of faculty, faculty governance, etc.), student body and instructional resources (library, laboratory, IT infrastructure etc.), and normative features (mission of the university). These environmental features have effects on faculty role performance.

Student body and instructional resources (library, laboratory, IT infrastructure etc.) have been found to have effect on faculty research productivity. Lindzey & Coggeshall (1982) said that the amount of direct expenditures on material support can be used as an indicator of research performance. Similarly, Payne & Spieth (1935) found out that where there is increased demand in expenditures for library facilities, it appears that the research productivity of faculty staff also increases (Payne & Spieth, 1935). The impact that information technology (IT) might have upon scholarly publication rates has also received attention in recent years as more universities acquire the installation base required to assess this in a meaningful way.

According to Blackburn and Lawrence (1995), the normative features (mission of the university) can influence the level of staff research productivity. For instance, the study of Radhakrishma et al. (1994) indicated that faculty members in major research institutions published more than faculty members at four-year colleges. El-Khawas (1991) reported there are lower productivity rates for senior members at two-year colleges than at four-year colleges and comprehensive universities. Pettigrew and Nicholls (1994) found that publication productivity is likely to be higher in doctorate-granting universities.

The social contingencies look at events and that happen within the personal environment of the

faculty member's life (the birth of a child, illness, pregnancy etc.) that will affect their research performance (Blackburn and Lawrence, 1995).

In general, although for the interest of scale and time this paper tries to discuss the aforementioned major determinant hindering factors to educational research productivity, there might be many other factors that could be mentioned.

## **2.5. Research Dissemination**

The production of new knowledge through the practices of research lies at the heart of universities. Yet, without effective and ongoing dissemination of knowledge, the efforts of researchers are wasted. Dissemination is thus a core responsibility of universities. Ultimately, for research to be relevant it must be linked to practice. If educational research results are not easily accessible and usable by those who need them most (i.e., policy makers, school administrators, researchers, teachers, among others), they are of limited practical use. As Derebssa (2004) said, the dissemination and utilization of research findings are an important part of expanding the positive impact of research.

According to Louis and Robert (1988), dissemination consists of purposive, goal-oriented communication of information or knowledge that is specific and potentially useable, from one social system to another. This definition implies that the intent of dissemination in education is not simply to disperse information, but to do so in ways that promote its use. It has to be aimed at bringing improvement and change in the education system.

According to Bechei (2010), knowledge transfer or research dissemination process is mainly undertaken between two communities (i.e. researchers and users). In the dissemination process, there are also linkage agents as intermediary actors between researchers and users. The actors working in the interface between the two communities play a critical role in the knowledge transfer processes. These actors could be specialists interested in university research, pedagogy counselors working in a school system, or professional managers involved in knowledge transfer activities.

Dissemination is a complex process whose success depends simultaneously on several dimensions like the dissemination agent's characteristics (e.g., its credibility), the disseminated product (e.g., relevance of research results for users), the final user's characteristics (e.g., personal motivation to use research results), the communication channels used (e.g., collaboration networks), the communication format (e.g., presentations, reports, etc.), as well as the resources allowed for these activities (e.g. time, human and financial resources) (Kirst, cited in Bechei 2010).

As far as university academics' researches are concerned, dissemination of research results is commonly done through presentations (workshops, seminars and conferences) as well as through publishing in local and international scholarly journals (Derebssa, 2004). According to Damtew (2004), in the absence of other effective and comparable means of scholarly communication, journals remain the most affordable, easily accessible, simple, effective, and relatively 'cheap' medium of scholarly communication in Africa's institutions of higher education, as well as in other research institutions.

However, nowadays, as Damtew (2004) said, the digital age has transformed the domain of knowledge dissemination as it catalyses the knowledge generation. Online journals, online databases, the Internet, e-mail, scholarly e-discussion groups, and, to a lesser extent, CD-ROM technology have transformed the knowledge domain. The application of new technologies has immensely simplified the modus operandi of knowledge production and dissemination.

However, African institutions find it increasingly difficult to keep track of the frontiers of knowledge because they lack access to these databases, as well as to major journals. Access to these databases is critical, but the costs and the necessary infrastructure are prohibitive. The common problems of low bandwidth, poor telecommunications, unreliable power supply, and lack of expertise pose serious challenges (Damtew, 2004).

## **2.6. The Status and Challenges of Educational Research in HEIs in Ethiopia**

The higher education sector in Ethiopia is growing at faster pace. Commencing in 2006, thirteen new Ethiopian Universities were opened and an additional four new higher education campuses were opened in fall 2011 bringing the total number of Ethiopian Universities to thirty. The government should be appreciated for the tremendous expansion of higher education in a short period of time.

However, expansion of higher education in a country cannot be an end in itself. It must meet the developmental need of the country by providing quality and relevant education and production of new knowledge through research. Higher Education Institutions are expected to produce new knowledge through research, serve as conduits for the transfer, adaptation, and dissemination of knowledge. Furthermore, 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 these regards (Tariku, 2012).

Cognizant of this fact, the ETP of Ethiopia suggested that in higher education and in technical and vocational education programs there should be nexus between education (teaching) and research (MOE, 1994). In line with this, the Higher education proclamation number 650/2009 also stated the need for higher education instructors to undertake research as their duties, besides teaching.

The education sector in Ethiopia is guided by a program, referred to as Education Sector Development Program (ESDP). Previously, ESDP III ranged from 2005/2006 – 2010/2011. The current ESDP IV covers the period 2010/2011 – 2014/2015. The Education Sector Development Programs emphasize the development of research capacity throughout the education system. In 2005, the Federal Democratic Republic of Ethiopia Ministry of Education (FDRE MoE) established a National Higher Education Program Action Plan III of conducting and publishing faculty academic research activities for all institutions of higher education. Each institution was

required to implement an operational strategic plan for faculty research publications in support of the National initiative (MoE, 2005). As Aklilu et al., (2012) stated, since 2006, universities' faculties have received considerable pressure to conduct academic research with only limited results. Consequently, frustration and anxiety about research publications remained high for both the faculties and the administrators.

In spite of the various efforts and progresses exist, the status of research in particular, educational research practices in higher educations of Ethiopia was found not as it ought to be. The growth in higher education seems to be focused on education. Though research is incorporated in universities mission statements, but very little research is actually carried out in our universities compared to their potentials. Research is still at an early stage of development and staff needs to further develop its research skills. Ashcroft and Rayner (2011, 235) indicated that there is little quality research being undertaken in Ethiopia's universities, and consultancy and income generation through knowledge creation and transfer are at a developmental stage (although some have developed particular research strengths in areas such as medical sciences and forestry).

According to studies conducted by various Ethiopian scholars such as Endashaw (1995); Derebssa (2004); Teshome (2004); Asrat (2007); Getaneh (2009); Kiflom (2009); Tessema (2009); Melese (2010); and Mehari (2011), there were multiple casual factors that hindered the active involvement of higher education instructors in research in particular, educational research activities.

Endashaw (1995, p. 87), assessed the current status of research in higher learning institutions in Ethiopia and summarized the major challenges as follows:

. . . weak research infrastructure, inadequate support staff, poor administrative support, insufficient funding, heavy teaching load, lack of incentives and interest, poor working relation with development-oriented government offices, absence of independent career structure and lack of disseminating research results in the various vernacular languages, poor documentation system of research results, lack of clear research policies, experienced leadership and demoralization of many

academic staff and lack of close attention to the necessary basic knowledge for sustainable research development.

As Endashaw (1995) identified in his study, insufficient funding was one important problem associated with the low level of research undertakings in many institutions. This has been a case even in the oldest university, AAU, where this study focuses. According to institutional self-evaluation conducted by AAU in 2008, lack of funding, poor research facilities, lack of rewards, heavy teaching load, and non-existent of conducive working environment were among the major obstacles to research (AAU cited in Mehary 2011).

Instructional resources (library, laboratory, ICT etc.) also have effects on faculty research productivity (Blackburn and Lawrence, 1995). The insufficient resources force university officials and faculty members to be unable to keep abreast with their field and to engage in research. As studies revealed, there is also lack of resources in our higher education institutions. According to the study conducted by Kiflom (2009) on “The Status of Mekelle University Research Undertaking”, lack of recent reference materials in the library and insufficient internet access were among the major determinant factors to research activity. Furthermore, Kiflom (2009) concluded that there exists 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.

It is highly acknowledged that the new technologies are important tools to minimize the difficulties of conducting and publishing scientific research. Open access scholarly communication models foster and support knowledge sharing and collaboration among researchers. However, the limited internet connections and the high cost of scientific journals and books are inhibiting the opportunity to have access to electronic and printed scholarly work done in the country. Due to this, faculty exposure and knowledge of the discipline and recent developments is limited. As Getaneh (2009) stated, dissemination outlets for Ethiopian research are mainly print publications and conferences and many of the publications have limited circulation. There are very few journals and publications to disseminate research and Ethiopian journals and publications are also hardly available online. For instant, as Getaneh (2009)

indicated, Addis Ababa University Electronic Theses and Dissertations (ETD) is operational since January 2009. The AAU-ETD currently hosts only 1669 items of theses and dissertations which is very few for a university that has tens of thousands of theses and dissertations produced over the years. AAU relies mainly on print publications to disseminate their research results. AAU has no institutional storage/repository for its research outputs. Consequently, the university researchers' visibility to the outside world is very low. Moreover, researchers, students, industries and the general public have no access to most of the research that has been done within AAU.

The heavy workload and engaging in routine tasks also have been found to be another problem. As Tessema (2009) indicated, in Ethiopian higher education staffs are overburdened by repetitive, non-professional activity. He indicated that:

Quite pervasively, teaching (in Ethiopian public university) is often and increasingly considered synonymous with being punctual for classes, taking class regularly, full coverage of curricular contents during the semester, being available in offices, carrying out invigilation assignments, submitting grades in time, allowing students to see their examination papers and taking attendances (Tessema, 2009, p. 38).

The problem of heavy workload and engaging in routine tasks has been also indicated in a study conducted at Addis Ababa University. Mehary (2011, p. 68) said:

. . . the major setbacks for research productivity are reported to be heavy teaching load and low salary. AAU faculties have year-round full load teaching responsibility. On top of that, they teach extension students (continuing education) during evenings and weekends to earn more money. Some also have teaching and consulting side jobs in other institutions and organizations. This leaves them with little or no time to think about research and to be engaged in meaningful research related activities.

Another key driver for the development of research in universities is the role of a research culture enabling HIEs to upgrade to university status. As identified by Derbessa (2004), lack of research culture, was among the several factors that were most significant impediments to the research practice in Addis Ababa University. Similarly, a study conducted on the status of

educational research by Asrat (2007, p. 33) in Haramaya University reveals “non existence of educational research culture by the faculty members at the institutional level except a very few dedicated individuals”.

Asrat (2007) found that most of the instructors in the Education Faculty lacked real interest in educational research; as a result, they are not engaged in it. A case study at Jimma University (Melese, 2012) also confirms that university teaching staff is minimally or not engaged in research, despite statements in e.g. university regulation mentioning that every teaching staff should devote 25% of working time to conducting research.

Besides the research culture, the other challenge that universities in Ethiopia facing is lack of faculty quality. For instance, Amara (2005) investigated the personal and institutional factors affecting Bahir Dar University teachers’ engagement in educational research activities and he found that the engagement of instructors in educational research activities are affected more by personal factors than institutional ones. And among the personal factors, teachers’ knowledge of educational research was found to influence other personal factors such as interest, perception, and commitment. Similarly, in the case of Haramaya University as indicated by Asrat (2007), instructors of Haramaya University who lacks capacity/skill in educational research methodology and methods were suffice to mention for his particular study.

In a study conducted by Tariku (2012) on ‘The status and Determinants of Research’ at Ambo University the major determinants hindering factors were identified as lack of research budget/fund, lack of dissemination channels like workshops, lack of publication outlets like scholarly journals, interest to do educational research, lack of research infrastructures like computers & others, lack of work motivation, work load/shortage of time like teaching load & others.

## **2.7. Research Undertaking and Dissemination at Addis Ababa**

The Addis Ababa University (AAU), the oldest and largest higher education institution in Ethiopia, has been engaged in research and community service activities since its establishment in 1950. Haile Selassie I University charter, "clearly stated research as one of the major components of the duties of a university" (Endashaw, 1995, p. 1). This led to the creation of several research institutes in the university at various levels with various objectives. The Ethiopian government has been financing these institutions of research, and several donor agencies have also contributed very considerable funds to higher learning institutions both for teaching and research. However, the research mission was not effective and research productivity was limited. One of the major reasons was "no periodic studies have been made to seriously evaluate research directives and priorities at higher-learning institutions" (Endashaw, 1995, p.1).

In 1974, Emperor Haile Selassie was overthrown and the university was named Addis Ababa University in 1975. In 1979, AAU began offering master's level graduate degree programs and in 1987 the university opened doctoral degree programs (Wondimu, 2003). The establishment of graduate level education was thought to solve the research needs of the country. However, it was not planned wisely and graduate programs were operating with the undergraduate budget (Endashaw, 1995).

In recent days, university is taking steps to shift its focus towards graduate school and research. The strategic plan is the first attempt to chart its future direction. There has been a major drive by the University to reinvigorate its entire research landscape while linking it organically with industry through a vigorous technology transfer goal. According to the strategic plan, the vision of the Addis Ababa University is, "...to be a pre-eminent African research university dedicated to excellence in teaching, critical inquiry, creativity and public action in an academic community that cultivates and celebrates diversity" (AAU, 2013c, p.1).

The university has gone through series of changes, reorganizations and transformations. Among the series of structural changes aimed at improving its institutional and operational qualities so as to enable it to live up to its name and standard, the one that took place very recently after a

prolonged Business Process Reengineering (BPR) is by far the most profound. Among the many changes brought about as a result of this reorganization and transformation plan was the upgrading of the research office of the AAU to the level of Vice President and the inclusion of technology transfer as an important wing of the office. Research at AAU has been given a new organizational platform under a new direction and new set of policy framework (AAU, 2013c).

The current policy of the University provides that each department can allocate 25% of the total staff for research. Faculty members are also allowed six months paid research leave every four years and one calendar year of paid sabbatical leave every seven years (AAU, 2013b). As indicated in AAU (2014a), individual faculty members are free to choose the subject matter of their research, and to seek support from any source for their research project.

In funding research, as indicated in AAU (2014b), the Office of the VPRTT gives priority to research programs and to multidisciplinary research falling within the institutional research priorities, as opposed to individual research projects.

AAU faculty members are encouraged to disseminate their research findings and this is reflected in the revised legislation (AAU, 2013b):

An academic staff has the right to disseminate his research findings within or outside the University through any media. He shall also have the right to demand the establishment of media for the dissemination of his findings, where such appropriate media do not exist, subject to availability of resources.

According to AAU (2014c) Publication of research findings in reputable journals is a major condition for promotion of the university academic staff. The total number of journals in the university has now reached over 40. Most of the journals publish original works of the staff of the University and other researchers in the region and elsewhere. The University runs numerous workshops, conferences, panel discussions, stakeholders meetings and demonstrations every year with pertinent bodies, so that the knowledge generated in the University reaches end users. The AAU Library System has also developed a database of more than 4000 thesis and dissertations produced by graduate students of AAU.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

Under this chapter, the research setting, conceptual model of the study, the research design, source of data, data gathering instrument, sampling techniques & sample population, procedures of data collection, and data presentation & analysis will be respectively presented.

### **3.1. Design of the Study**

In this study a mixed research design has been used to investigate the current status and challenges of educational research productivity. Mixed research approach was preferred in the expectation that a combination of different approaches (triangulation) would yield solid findings. For the quantitative data, descriptive research design was employed to present, summarize, describe and establish relationships among study variables. This is because descriptive survey research involves a clearly defined problem and definite objective (Best and Kahn, 1993).

### **3.2. Research Setting**

The Addis Ababa University (AAU), the oldest and largest higher education institution in Ethiopia, has a long track record of leading the higher education system of the country with training, research and community services since its establishment as the University College of Addis Ababa, in 1950 by Emperor Hailesilassie I then renamed Haile Selassie I University in 1962 (AAU, 2013b).

The university currently runs 65 undergraduate and 220 graduate programs (of which 69 are PhD) in 14 campuses. It has a population of about 50,000 students pursuing their studies in regular and extension programs, and 2000 academic and over 5,000 support staff. Since it went functional in 1950 with only one department, Biology, and 70 students, Addis Ababa University has expanded and pursued different working systems at different times (AAU, 2013b). The university has six autonomous research institutes, which operate under the same set of rules and regulations namely: Academy of Ethiopian Languages and Cultures, Institute of Ethiopian Studies, Institute of Educational Research, Aklilu Lemma Institute of Pathobiology, Institute of

Geophysics, Space Science and Astronomy, and Ethiopian Institute of Water Resources(AAU, 2013a). According to the strategic plan, the vision of the Addis Ababa University is, “...to be a pre-eminent African research university dedicated to excellence in teaching, critical inquiry, creativity and public action in an academic community that cultivates and celebrates diversity” (AAU, 2013a, p.1).

The College of Education and Behavioral Studies (CEBS) had its beginning in 1952, initially offering major area courses in the then Arts Faculty. In 1963, it was promoted to the level of Faculty of Education and started training educators in different fields through its five Departments: Elementary Education, Secondary Education, Psychology, Library Science, and Technical Teacher Education. Currently, the College has one School and five Departments with 32 academic staff (AAU, 2013c).

One of its specific missions is to undertake educational research to generate new and innovative approaches; and enhance the dissemination of outputs through nationally and internationally recognized journals and related publications. It also aspires to be the center of excellence in educational research (AAU, 2014d). The College has a journal called Journal of Education for Development and it undertakes researches on diverse issues. At present, the College is starting a Thematic Research which addresses contemporary issues facing the system of education in Ethiopia with marked focus on schools (AAU, 2014e).

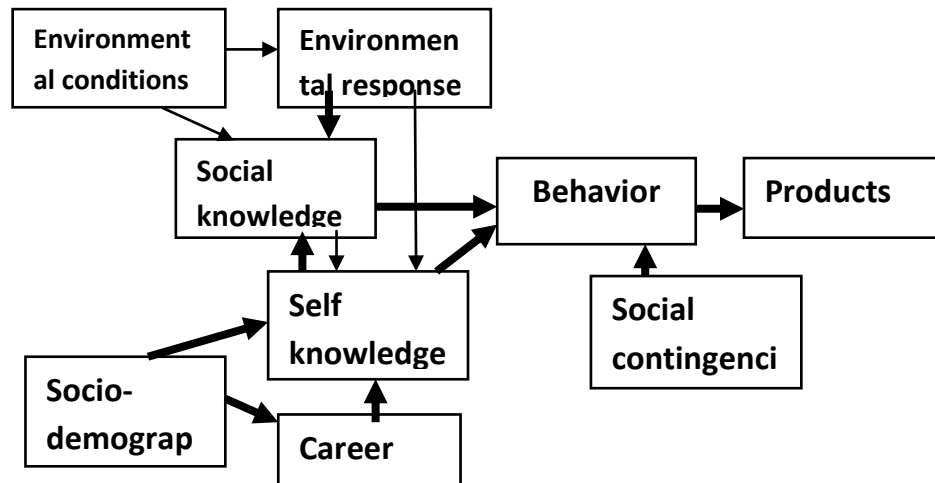
### **3.3. Conceptual Model of the Study**

The conceptual model of this study derives from Blackburn and Lawrence’s faculty at work (1995) theoretical framework, which was designed to gather data on faculty perceptions of their work environment, their own competency and efficacy as faculty members, their assumptions about their teaching, and their research, teaching, and service behaviors. Robert Blackburn and his colleagues conducted the first Faculty at Work survey to assess faculty productivity in 1988.

Their theoretical framework consists of four individual constructs (socio-demographic characteristics, career, self-knowledge and social knowledge) and three environmental constructs

(environmental conditions, environmental response, and social contingencies) as indicators of faculty behavior (Blackburn & Lawrence, 1995). These are discussed in detail under ‘Determinant Factors of Research Productivity’ in the literature review part of this study.

Figure 2. Theoretical framework of Blackburn and Lawrence (1995)



Note: the thick arrows signify strong or direct effects of the variables. The thin arrows indicate that there are weaker effects between several or the principal constructs

The theoretical framework further explains how faculty productivity is affected by the ongoing interaction between individual faculty and their environment. In addition to identifying the individual and environmental factors as indicators of faculty role performance, the framework show the dynamic interaction between self-knowledge (self judged competence) and social-knowledge (perceived institutional expectation given to a role) to explain faculty behavior.

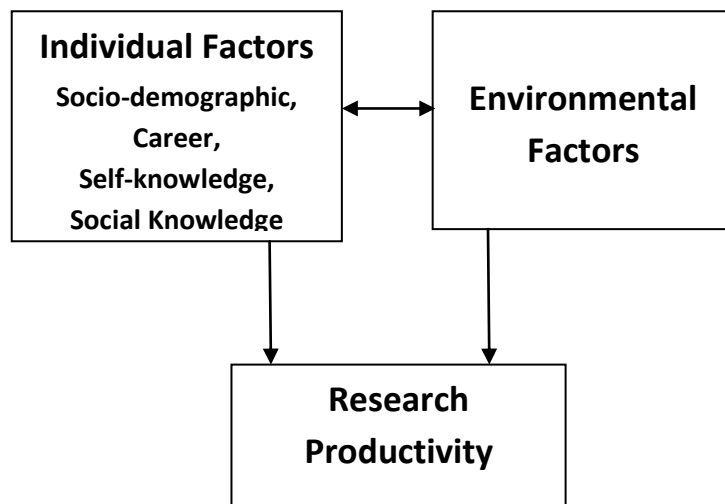


Figure 3. Conceptual Model of this study

In the conceptual model of the current study, as presented above, the determinant factors (independent variables) were rearranged into two main categories: Individual Factors and Environmental Factors. Four individual constructs (socio-demographic characteristics, career, self-knowledge, and social-knowledge) were identified. The socio-demographic characteristics consisted of age, gender and marital status. Career variables included field of specialization, educational qualification, Institution where highest degree obtained, academic rank, service years in academia and previous publication record. Self-knowledge variables considered to be faculty knowledge & skill, effort, ambition, commitment, competitiveness and persistence in related to research. As for Social knowledge, faculty members' perceptions of various aspects of their work environment i.e. collegial commitment and support, supervisors' support & formal feedback, value & recognition by college/departments for research accomplishments, institutional preferences and the overall intellectual/scholarly climate were treated.

The environmental factors consisted of financial supports (research fund), material support and clerical support for research activities.

This study assumes the individual and environmental constructs determine faculty research productivity. It also assumes the interrelationship among the independent variables. Following Blackburn and Lawrence (1995) theory, the research productivity was assessed in terms of publication outputs (dependent variable).

### **3.4. Source of Data**

Data sources for this study were both primary and secondary ones. Primary data sources were instructors, Associate Dean for Research and Technology Transfer and members of Research Council Committee. In Addition, documents (AAU Senate Legislation, staff profile and the research policies) were used as secondary data sources.

### 3.5. Sampling Techniques and Sample Population

AAU was purposively selected for this study based on the interest of the researcher and due to limited number of previous studies that examines the individual and environmental factors that determines educational research productivity at AAU. College of Education and Behavioral Studies (CEBS) was purposively selected since ‘educational’ research is primarily expected from this college. Under CEBS, there were 6 departments/Schools. From the six departments, five of them were included in main study while one of the departments was taken for the pilot study. At the five departments there were a total of 100full time instructors. Using simple random sampling technique 75% of them were sampled.

In addition to this, 1 Associate Dean for Research and Technology Transfer at CEBS and 4 members of the college Research Council Committee were purposefully included in the interview as they were believed to have relevant information pertinent to the issue. The committee members who were included in this study were from the following Departments: Curriculum and Teachers Professional Development (CTPD), Educational Planning and Management (EDPM), Special Needs Education (SN) and School of Psychology. Table 1 below presents the number of sample departments/schools and Instructors under CEBS.

**Table 1. Number of Sample Departments/Schools and Instructors under CEBS**

| No.          | Sample Departments/Schools Under CEBS                                | Total Number of Instructors | Number of Instructors for pilot study | No. Sample Instructors for the main study |
|--------------|----------------------------------------------------------------------|-----------------------------|---------------------------------------|-------------------------------------------|
| 1            | Department of Curriculum & Teachers Professional Development (DCTPD) | 32                          |                                       | 20                                        |
| 2            | Department of Educational Planning and Management (DEDPM)            | 13                          |                                       | 8                                         |
| 3            | School of Psychology (SP)                                            | 30                          |                                       | 17                                        |
| 4            | Department of Science & Mathematics Education (DSMED)                | 13                          | 7                                     |                                           |
| 5            | Department Social Science & Language Education (DSSLE)               | 14                          |                                       | 9                                         |
| 6            | Department of Special Needs Education (DSNE)                         | 11                          |                                       | 5                                         |
| <b>Total</b> |                                                                      | <b>113</b>                  | <b>7</b>                              | <b>59</b>                                 |

**Source:** AAU Academic Staff Profile and Academic Programs 2012/2013 E.C (AAU, 2013d)

### **3.6. Data Gathering Instruments**

In order to gather first hand information, questionnaire and interview were administered. The instruments were formulated based on the basic research questions and review of related literature. The questionnaire was used to gather broad and general information from large number of respondents i.e. teachers. The questionnaire was composed of both open-ended and close-ended items. A five point likert scale (1 being Very Low; 2 = Low; 3 = Medium; 4 = High; and 5 = Very high ), consisting of 72 items, was used. This enabled comparison to be reached as to the extent to which each variable affected the research productivity. The questionnaire consisted of four parts i.e. Part one related to Respondents' Socio-Demographic and Career Data, part two consisted items related to the status of educational research undertaking, part three included items regarding major determinant factor to educational research dissemination and part four covered items about the level of educational research results dissemination.

Semi-structured Interview, which consisted of 12 guiding questions, was administered to Associate Dean for Research and Technology Transfer at CEBS and members of the college Research Council Committee, so as to get more information and clarification on the issue. Document analysis was also used as an instrument to get additional information relevant to the study.

### **3.7. Procedures of Data Collection**

Permission letter from IER was secured and circulated along with the questionnaires to all departments at CEBS.

First a preliminary survey was made in order to pre-test the survey instrument, identify any shortcoming and make the necessary modification to the items before the actual data collection is carried out. The pilot study was conducted with 7 instructors from Department of Science & Mathematics Education, which was not included in the main study. Thus, the questionnaire was tested for reliability yielding a 0.81 Cronbach's Alpha, which indicated a high reliability. In order

to assure the validity of the questionnaire, it was reviewed by SPSS instructor and two classmate researchers and correction has been made based on the useful insights gained from their comments especially about the clarity of questions and instructions. After assuring the reliability and validity of the instruments, the main data collection activity was conducted.

Interview with the selected respondents was carried out while waiting for the return of distributed questionnaires. In the mean time, document analysis was done.

### **3.8. Data Presentation and Analysis**

First the collected data using the questionnaires was coded, tallied and organized. Then, it was entered, cleaned and analyzed using Statistical Packages for Social Sciences (SPSS) software. Out of 75 questionnaires circulated, 59 were returned resulting in 79% response rate.

The quantitative data was analyzed using Descriptive statistics (frequencies, percentages, means and standard deviations) and inferential statistics (Pearson Correlation and Linear Regression). To analyze the qualitative data from interviews first, all the audio-recorded interviews were transcribed verbatim, coded and categorized based on the those themes which emerged from the data. Then quotations and the use of thematic categories were used to illustrate main results. Data gathered through document analysis were also integrated in the analysis and interpretation part as appropriate. Then, at the stage of interpretation, findings from both qualitative and quantitative data were consolidated and discussed. Finally, based on the findings of the study, conclusions and recommendations will be drawn.

## CHAPTER FOUR: PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

This chapter comprises two major parts. The first part presents the characteristics of respondents and the second part deals with the analysis and interpretation of the data collected from study participants to seek answers to the following research questions:

1. What is the current status of educational research practices in AAU?
2. To what extent are educational research outputs disseminated?
3. What are the major determinant factors to educational research productivity in AAU?
4. What are the salient predictors for educational research output?

### 4.1. Characteristics of Respondents

The characteristics of respondents were examined in two parts: by socio-demographic profile and career Profile. The next table presents the cross-tabulation of the survey respondents by socio-demographic profile and department/school. The socio-demographic profile looked at respondents' sex, age and marital status.

**Table 2:** Respondents' Socio-demographic Profile by Department/School

| Details        |              | N         | %             |
|----------------|--------------|-----------|---------------|
| Sex            | Male         | 53        | 89.8%         |
|                | Female       | 6         | 10.2%         |
|                | <b>Total</b> | <b>59</b> | <b>100.0%</b> |
| Age            | <26          | 1         | 01.7          |
|                | 26-35        | 14        | 23.7%         |
|                | 36-45        | 16        | 27.1%         |
|                | 46-55        | 19        | 32.2%         |
|                | >55          | 9         | 100.0%        |
|                | <b>Total</b> | <b>59</b> | <b>100.0%</b> |
| Marital Status | Married      | 41        | 69.5%         |
|                | Unmarried    | 17        | 28.8%         |
|                | <b>Total</b> | <b>59</b> | <b>100.0%</b> |

**Note:** CTPD= Curriculum and Teachers' Professional Development; EDPM= Educational Research and Development; SP= School of Psychology; SNE= Special Needs Education; SSLE= Social Science and Language Education.

As Table 2 indicates the distribution of respondents across the five departments, out of the total 59 survey respondents, 34.5% were from CTPD and 29.3% were from SP. Respondents from SSLE were 15.5%. The rest 12.1% and 8.6% of respondents were from EDPM and SNE, respectively. Thus, this shows that majority of respondents were from CTPD and SP. This was mainly due to the highest number of instructors found in CTPD and SP.

Similarly, Table 2 indicates that 89.8% of survey respondents were males, while 10.2% were females. This implies that majority of the respondents who participated in this study were male instructors. This was again mainly because of the small proportion of female instructors in the College.

In terms of age category, 83% of respondent instructors were between the ages of 26 and 55 (26-35 year = 23.7%, 36-45 years = 27.1% and 46-55 years = 32.2%). Respondents with the age of above 55 were 15.3%, while only 1.7% of instructors was below the age of 25. This reveals that most of the respondents who were involved in this study were found from 26 to 55 years, which is a productive age group.

The next table presents the cross-tabulation of survey respondents' by career variable and department/school.

**Table 3:** Respondents' Career Variable

| Details                                 |                     | N         | %             |
|-----------------------------------------|---------------------|-----------|---------------|
| Educational qualification               | Masters             | 31        | 53.4%         |
|                                         | PhD                 | 27        | 46.6%         |
|                                         | <b>Total</b>        | <b>58</b> | <b>100.0%</b> |
| Institution where highest degree earned | Local               | 34        | 57.6%         |
|                                         | Foreign             | 25        | 42.4%         |
|                                         | <b>Total</b>        | <b>59</b> | <b>100.0%</b> |
| Academic rank                           | Lecturer            | 30        | 50.8%         |
|                                         | Assistant Professor | 22        | 37.3%         |
|                                         | Associate Professor | 6         | 10.2%         |
|                                         | Professor           | 1         | 1.7%          |
|                                         | <b>Total</b>        | <b>59</b> | <b>100.0%</b> |
| Service years in academia               | <6                  | 4         | 6.8%          |
|                                         | 6-10                | 14        | 23.7%         |
|                                         | 11-15               | 14        | 23.7%         |
|                                         | 16-20               | 6         | 10.2%         |
|                                         | 21-25               | 7         | 11.9%         |
|                                         | >25                 | 14        | 23.7%         |
|                                         | <b>Total</b>        | <b>59</b> | <b>100.0%</b> |

As table 3 above indicates the educational qualification of respondent instructors, 53.4% of respondent instructors were master's degree holders, while, 46.6% of respondent instructors had PhD. This shows that the number of PhD holders is less than the MA holders. Collins (1993), in his study of faculty research productivity, found out that academic faculties who earn a PhD degree have been associated with higher levels of faculty research productivity. In principle, it appears that earning a PhD apparently teaches faculty members those academic norms and values needed for high research productivity. Thus, the less number of PhD holders could have an impact on the educational research productivity. Table 3, furthermore, shows that 57.6% of respondent instructors obtained their highest degree from local higher institution, whereas 42.4% of respondent instructors obtained their highest degree from foreign higher institution.

Table 3 also shows that 50.8% of them were Lecturers, 37.3% of respondent instructors were Assistant Professor, 10.2% of them were Associate Professor, while only 1.7% of respondent instructors was Professor. This reveals that in terms of academic rank, majority of respondent instructors who participated in this study were at Lecturer level followed by Assistant Professors. Regarding respondent instructors' service year in academia, Table 3 indicates that respondent

instructors who served from 6-10 years, 11-15 year and more than 25 years take equal portion (N=14, 23.7%) each. While 6.8%, 10.2% and 11.9% of respondents served for less than 6 years, from 16-20 years and from 21-25 years, respectively.

What is more, personal data of the five interviewees were seen in terms of sex, educational qualification, academic rank, leadership position and their role related to research. Accordingly, all the 5 interviewees who participated in this study were male. Concerning their educational qualification, again, all (5) of them had PhD, holding Assistant Professor rank. Regarding their leadership position, 1 of the interviewees was Associate Dean for Research and Technology Transfer, 1 Department Dean, and the other 3 were teaching staff. All the five interviewees were members of College Research Council Committee.

## 4.2. The Status of Educational Research Practice at CEBS

The status of educational research practice at CEBS was mainly assessed in terms of the number of published research outputs. In doing so, instructors were asked to report the number of their educational publications for the last five years in the following categories: published research works, other published research works and research works submitted for publication. Instructors were also asked to report the number of unpublished research works and ongoing research works. The results are presented in Table 4 below.

Table 4. Number of Educational Research Publications of Instructors

| <b>Publications</b>                          | <b>N</b>  | <b>Min</b> | <b>Max</b> | <b>M</b>    | <b>SD</b>   | <b>Total</b>            |
|----------------------------------------------|-----------|------------|------------|-------------|-------------|-------------------------|
| Articles Published in Journals               |           |            |            |             |             |                         |
| Individual                                   | 59        | 0          | 6          | 1.12        | 1.65        | 66                      |
| Co-authored                                  | 59        | 0          | 4          | .49         | 1.01        | 29                      |
| <b>Total</b>                                 |           |            |            |             |             | <b>95<br/>(23.9%)</b>   |
| Articles Published in Magazines              |           |            |            |             |             |                         |
| Individual                                   | 59        | 0          | 8          | .44         | 1.19        | 26                      |
| Co-authored                                  | 59        | 0          | 0          | .00         | .00         | 0                       |
| <b>Total</b>                                 |           |            |            |             |             | <b>26 (6.5%)</b>        |
| Articles Published in Monographs             |           |            |            |             |             |                         |
| Individual                                   | 59        | 0          | 3          | .14         | .47         | 8                       |
| Co-authored                                  | 59        | 0          | 1          | .02         | .13         | 1                       |
| <b>Total</b>                                 |           |            |            |             |             | <b>9 (2.3%)</b>         |
| Articles Published in Newspapers             |           |            |            |             |             |                         |
| Individual                                   | 59        | 0          | 10         | .46         | 1.545       | 27                      |
| Co-authored                                  | 59        | 0          | 0          | .00         | .00         | 0                       |
| <b>Total</b>                                 |           |            |            |             |             | <b>27 (6.8%)</b>        |
| Articles Published in Conference Proceedings |           |            |            |             |             |                         |
| Individual                                   | 59        | 0          | 10         | 1.53        | 2.32        | 90                      |
| Co-authored                                  | 59        | 0          | 8          | .39         | 1.18        | 23                      |
| <b>Total</b>                                 |           |            |            |             |             | <b>113 (28.5%)</b>      |
| Books Published                              |           |            |            |             |             |                         |
| Individual                                   | 59        | 0          | 4          | .25         | .66         | 15                      |
| Co-authored                                  | 59        | 0          | 2          | .15         | .41         | 9                       |
| <b>Total</b>                                 |           |            |            |             |             | <b>24 (6.0%)</b>        |
| Book Chapters Published                      |           |            |            |             |             |                         |
| Individual                                   | 59        | 0          | 3          | .32         | .68         | 19                      |
| Co-authored                                  | 59        | 0          | 22         | .46         | 2.87        | 27                      |
| <b>Total</b>                                 |           |            |            |             |             | <b>46 (11.6%)</b>       |
| Other Published Works                        |           |            |            |             |             |                         |
| Individual                                   | 59        | 0          | 3          | .19         | .54         | 11                      |
| Co-authored                                  | 59        | 0          | 8          | .17         | 1.05        | 10                      |
| <b>Total</b>                                 |           |            |            |             |             | <b>21 (5.3%)</b>        |
| Research Works Submitted for Publication     |           |            |            |             |             |                         |
| Individual                                   | 59        | 0          | 3          | .44         | .86         | 26                      |
| Co-authored                                  | 59        | 0          | 2          | .17         | .46         | 10                      |
| <b>Total</b>                                 |           |            |            |             |             | <b>36 (9.1%)</b>        |
| <b>Total Publication (Individual)</b>        | <b>59</b> | <b>0</b>   | <b>28</b>  | <b>4.88</b> | <b>6.00</b> | <b>288<br/>(72.5%)</b>  |
| <b>Total Publication (Co-authored)</b>       | <b>59</b> | <b>0</b>   | <b>27</b>  | <b>1.85</b> | <b>4.07</b> | <b>109<br/>(27.5%)</b>  |
| <b>Total</b>                                 | <b>59</b> | <b>0</b>   | <b>35</b>  | <b>6.73</b> | <b>7.79</b> | <b>397<br/>(100.0%)</b> |

As indicated in Table 4, the total number of educational publications (including articles submitted for publication) by instructors during the last five years was 397, the minimum and the maximum number of educational publications by instructors were 0 and 35, respectively ( $M=6.73$ ;  $SD=7.79$ ). The  $M=6.73$  indicates that instructors have produced average 6.7 publications during the last five years. Moreover, one can learn from this data that there were instructors who did not have any publication during the last five years and there was also a big variance in number of publication among instructors.

Out of the total 397 publications, majority (72.5%) of the publications were published by instructors individually, while 27.5% of publications were co-authored with colleagues. This big gap implies that collaborative/team research works are limited in number. In terms of the types of publications (including individual and co-authored), the number of articles published in conference proceedings takes the highest portion, 28.5%, followed by articles published in journals, 23.9%. Whereas, the smallest number of articles 2.3% were published in monographs. Though the number of articles on conference proceedings and articles on journals relatively look bigger, their mean scores 1.61 and 1.92, respectively, tell us that respondent instructors had averagely 1 to 2 articles published in conference proceedings and 1 to 2 articles in journals during the last five years which seems very less. Similarly, the means of articles published in magazines ( $M=0.44$ ), articles published in monographs ( $M=0.16$ ), articles published in newspapers ( $M=0.46$ ), books published ( $M=0.40$ ), book chapters published ( $M=0.78$ ), other published works ( $M=0.36$ ), and research works submitted for publications ( $M=0.61$ ) indicate that average number of outputs for each aforementioned types of publications during the last five years is less than 1, which is very minimal.

Next, in order to see the status of instructors' participation in educational research, instructors were categorized into four (high level participants, average level participants, low level participants and none participants) according to their number of research publications. For this, half of the standard deviation of the total number of research publications ( $SD = 7.79$ ;  $SD/2 = 3.39$ ) and the mean ( $M=6.73$ ) were taken to divide instructors in the four categories. The reason for taking half of the SD was due to the big variance in the number of publications. Thus, instructors who did not publish (0 publication) during the last five years were categorized as

‘None Participants’, instructors who published from 1 – 3 publications were categorized as ‘Low Level Participants’, instructors who published from 4 – 10 publications were categorized as ‘Average Level Participants’ and those who published more than 10 publications were categorized as ‘High Level Participants’. Figure 3 shows the status of instructors’ participation in percentage.

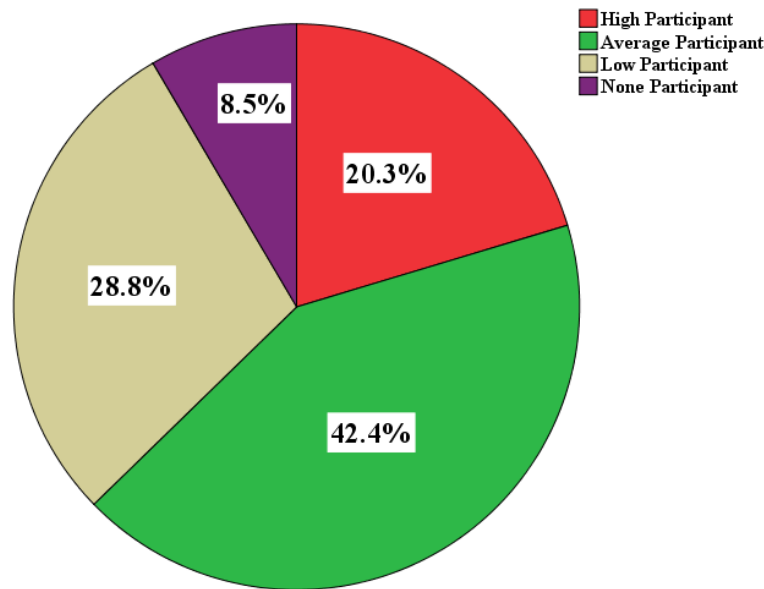


Figure 3. The Status of Instructors’ Participation in Educational Research

It can be deduced from Figure 3 that 42.4% of instructors were medium level participants in educational research, more than 37% of instructors were low and very low level participants (28.8% = low level participants and 8.5% = very low level participants), while 20.3% of instructors were high level participants. The interview made with I<sub>1</sub>, I<sub>3</sub>, and I<sub>4</sub> also shows medium status while I<sub>2</sub> and I<sub>5</sub> reported as low. Hence, based on the data, it can be said that the status of educational research practice is at medium level, but there are still substantial number of instructors at low level of participation (28.8%). This finding indicates that instructors at CEBS of AAU are in a better position with regards to educational research undertaking comparing to other study findings like (Melese, 2012) in a case study at Jimma University which confirms that university teaching staff is minimally or not engaged in research. Asrat (2007) in Haramaya University, in his part, also revealed that the instructors’ educational research involvement was almost non-existent.

For further assessment of instructors' current level of participation in educational research, they were also requested to report the number of ongoing researches. Table 5 contains self-reported number of ongoing researches by instructors.

Table 5 Number of Ongoing Researches conducted by Instructors

|                        |              | <b>N</b>  | <b>Min</b> | <b>Max</b> | <b>M</b>    | <b>SD</b>   | <b>Total</b>           |
|------------------------|--------------|-----------|------------|------------|-------------|-------------|------------------------|
| Ongoing Research Works | Individual   | 59        | 0          | 4          | .83         | 1.04        | 49<br>(47.6%)          |
|                        | Co-authored  | 59        | 0          | 4          | .67         | .96         | 40<br>(52.4%)          |
|                        | <b>Total</b> | <b>59</b> | <b>0</b>   | <b>5</b>   | <b>1.51</b> | <b>1.24</b> | <b>89<br/>(100.0%)</b> |

Table 5 above indicates that there were a total of 89 ongoing researches by instructors. Out of the total 89 ongoing researches, 47.6% were by individual instructors, while 52.4% were collaborative ( $M=1.51$ ,  $SD=1.237$ ). The minimum and the maximum number of ongoing researches were 0 and 5, respectively, and the number of ongoing researches in average was from 1 to 2. Though the average number of ongoing researches ( $M=1.51$ ) looks promising, there were also instructors who were not conducting research during this study and the variance was also big. Thus, this implies that in terms of research undertaking, there is noticeable difference among instructors. This was also confirmed by one of the interviewees ( $I_4$ ) by saying 'There are few instructors who are highly engaged in research while some never think of research'.

Moreover, the number of published research works was analyzed by socio-demographic and career variables as presented in Table 6.

Table 6. Publications by Socio-demographic and Career Variables

| Variables                         | Attributes          | M           | SD          | Max       |
|-----------------------------------|---------------------|-------------|-------------|-----------|
| Sex                               | Male                | 7.19        | 8.06        | 35        |
|                                   | Female              | 2.67        | 2.42        | 6         |
|                                   | <b>Total</b>        | <b>6.73</b> | <b>7.79</b> | <b>35</b> |
| Age                               | <25                 | 3.00        | .           | 3         |
|                                   | 26 – 35             | 1.93        | 1.94        | 7         |
|                                   | 36 – 45             | 6.25        | 5.47        | 18        |
|                                   | 46 – 55             | 6.79        | 7.60        | 35        |
|                                   | >56                 | 15.33       | 11.02       | 28        |
|                                   | <b>Total</b>        | <b>6.73</b> | <b>7.79</b> | <b>35</b> |
| Marital Status                    | Married             | 8.39        | 8.61        | 35        |
|                                   | Single              | 3.12        | 3.26        | 11        |
|                                   | <b>Total</b>        | <b>6.84</b> | <b>7.80</b> | <b>35</b> |
| Educational Qualification         | Masters             | 3.42        | 6.11        | 28        |
|                                   | Doctorate           | 10.78       | 7.77        | 35        |
|                                   | <b>Total</b>        | <b>6.84</b> | <b>7.80</b> | <b>35</b> |
| Institution Highest Degree Earned | Local               | 2.97        | 2.24        | 11        |
|                                   | Foreign             | 11.84       | 9.61        | 35        |
|                                   | <b>Total</b>        | <b>6.73</b> | <b>7.79</b> | <b>35</b> |
| Academic Rank                     | Lecturer            | 2.37        | 1.75        | 7         |
|                                   | Assistant Professor | 3.00        | .           | 3         |
|                                   | Associate professor | 15.83       | 9.13        | 28        |
|                                   | Professor           | 10.36       | 8.83        | 35        |
|                                   | <b>Total</b>        | <b>6.73</b> | <b>7.79</b> | <b>35</b> |
| Service Years in Academia         | <6                  | 2.25        | 1.71        | 4         |
|                                   | 6-10                | 2.29        | 3.05        | 11        |
|                                   | 11-15               | 4.50        | 3.70        | 15        |
|                                   | 16-20               | 7.33        | 6.25        | 18        |
|                                   | 21-25               | 12.43       | 8.70        | 28        |
|                                   | >25                 | 11.57       | 11.01       | 35        |
|                                   | <b>Total</b>        | <b>6.73</b> | <b>7.79</b> | <b>35</b> |

Table 7. Marital Status by Age

|                |           | Age  |         |         |         |       | Total  |
|----------------|-----------|------|---------|---------|---------|-------|--------|
|                |           | <25  | 26 - 35 | 36 - 45 | 46 - 55 | >56   |        |
| Marital Status | Married   | 0.0% | 5.2%    | 17.2%   | 32.8%   | 15.5% | 70.7%  |
|                | Unmarried | 1.7% | 19.0%   | 8.6%    | 0.0%    | 0.0%  | 29.3%  |
| Total          |           | 1.7% | 24.1%   | 25.9%   | 32.8%   | 15.5% | 100.0% |

As one can see on Table 6, the mean score of publication by male instructors ( $M=7.19$ ,  $SD=8.06$ ) was by far greater than that of females ( $M=2.67$ ,  $SD=2.42$ ). Moreover, the maximum number of publication by male and female had big gap (male maximum= 35, female maximum= 6). Though the data indicates that the mean score of male instructors were greater than that of females', the proportion of female instructors makes it difficult to deduce.

As to age category, the bigger mean of publication belongs to instructors with age above 56 ( $M=15.33$ ,  $SD=11.02$ ), while the smaller mean of publication ( $M=1.93$ ,  $SD=1.94$ ) goes to the age group of 26-35. The maximum number of publication (35) was in the age group of 46-55 whereas the minimum number of publication (3) was belongs to instructors with age group of below 25. Thus, the data clearly indicate that the number of publications by older instructors was by far greater than that of younger ones. Therefore, age was a major determinant factor to the involvement of instructors in educational research. But this finding seems contradictory to the view of Creswell (1985) that growing old impairs performance, though performance improves with experience. On the other hand, for Fox (1985), the association of age and productivity is neither linear nor monotonic.

In terms of marital status, married instructors had the bigger mean of publication ( $M=8.39$ ,  $SD=8.61$ ) than unmarried instructors ( $M=3.12$ ). Besides, the maximum number of publication (35) was published by married instructors. The data shows a big gap in publication between married and unmarried instructors. As the researcher assumed that the gap due to marital status

could have some relationship with age, it was further assessed by cross-tabulation of marital status with age in Table 7 and the data indicated that majority of married instructors (65.5%) were above the age of 36 and as discussed earlier, the data clearly indicate that the number of publications by older instructors was by far greater than that of younger ones. Thus, this implies that the publication gap due to marital status has to do with instructors' age as well.

Table 6 above further discloses that the mean of publication by instructors with PhD (10.78) was by far greater than the mean of publication by instructors with masters degree (3.42), also the maximum number of publication (35) belongs to PhD holders. Similarly, Collins (1993), in his study of faculty research productivity, found out that academic faculties who earn a PhD degree have been associated with higher levels of faculty research productivity. Consequently, it appears that earning a PhD apparently teaches faculty members those academic norms and values needed for high research productivity. Whereas, Asrat (2007) at Haramaya University and Tariku (2012) at Ambo University found no relationship between educational qualification and research productivity.

According to Konrad & Pfeffer (1990), the top academic institutions generally produce a high level of research productivity because high-status universities enjoy advantage in terms of financial resources and research support that encourage publication. In view of this, Table 6 indicates that instructors who earned their highest degree from foreign institutions had the bigger mean of publication ( $M=11.84$ ,  $SD=9.61$ ) compared to the mean of publication by instructors who earned their highest degree from local institutions ( $M=2.97$ ,  $SD=2.24$ ). Besides, the maximum number of publication was also published belong to instructors who earned their highest degree from foreign institutions. Thus, this implies that instructors who earned their highest degree from foreign institution were more productive in research than who earned from local higher institutions. This implies that the institution where instructors earn their highest degree had a major contribution in their research productivity.

As table 6 shows, the mean of total publication was also analyzed by academic rank of instructors. Accordingly, Associate professors had the bigger mean of publication ( $M=15.83$ ), followed by full professors ( $M=10.36$ ). Instructors at lecturer level had the smaller mean of

publication ( $M=2.37$ ). The maximum number of publication (35) was published by full professors. Thus, the rank was also found to be a major determinant factor to research productivity.

Finally, when publication compared in terms of instructors' service year in academia, Table (6) depicts that the bigger mean of publication (11.57) goes to instructors who served from 21-25 years ( $M=12.43$ ,  $8.70$ ), followed by instructors who served for more than 25 year ( $M=11.57$ ,  $SD=11.01$ ), while the smaller mean ( $M=2.25$ ) goes to instructors who served for less than 6 years. The maximum number of publication (35) was published by instructors who served for more than 25 years. Thus, the data indicates that the number of year in academia is positively related to research productivity. This finding is also similar with the findings of Birhanu (2009) in the case of Colleges of Education in Tigray region and Tariku (2012) at Ambo University.

In addition to the publications count, respondent instructors were also asked to rate their own level of involvement in different research related activities and their responses are presented in Table 7 below.

Table 7. Instructors' Involvement in Educational Research Related Activities

| Items                                                                  |           | N  | %     | M    | SD   |
|------------------------------------------------------------------------|-----------|----|-------|------|------|
| Involvement in Formulation of Educational Research Agenda              | Very Low  | 6  | 10.2  | 3.05 | 1.17 |
|                                                                        | Low       | 14 | 23.7  |      |      |
|                                                                        | Medium    | 17 | 28.8  |      |      |
|                                                                        | High      | 16 | 27.1  |      |      |
|                                                                        | Very High | 6  | 10.2  |      |      |
|                                                                        | Total     | 59 | 100.0 |      |      |
| Involvement in Review of Educational Research Agenda                   | Very Low  | 8  | 13.6  | 3.02 | 1.25 |
|                                                                        | Low       | 13 | 22.0  |      |      |
|                                                                        | Medium    | 16 | 27.1  |      |      |
|                                                                        | High      | 14 | 23.7  |      |      |
|                                                                        | Very High | 8  | 13.6  |      |      |
|                                                                        | Total     | 59 | 100.0 |      |      |
| Participating in Sharing Research Ideas with Other Faculty Researchers | Very Low  | 10 | 16.9  | 3.25 | .81  |
|                                                                        | Low       | 27 | 45.8  |      |      |
|                                                                        | Medium    | 19 | 32.2  |      |      |
|                                                                        | High      | 3  | 5.1   |      |      |
|                                                                        | Very High |    |       |      |      |
|                                                                        | Total     | 59 | 100.0 |      |      |
| Assistance to Other Faculty Researchers                                | Very Low  | 2  | 3.4   | 3.07 | .94  |
|                                                                        | Low       | 12 | 20.3  |      |      |
|                                                                        | Medium    | 31 | 52.5  |      |      |
|                                                                        | High      | 8  | 13.6  |      |      |
|                                                                        | Very High | 6  | 10.2  |      |      |
|                                                                        | Total     | 59 | 100.0 |      |      |
| Overall Involvement in Educational Research                            | Very Low  | 1  | 1.7   | 3.22 | .87  |
|                                                                        | Low       | 10 | 16.9  |      |      |
|                                                                        | Medium    | 27 | 45.8  |      |      |
|                                                                        | High      | 17 | 28.8  |      |      |
|                                                                        | Very High | 4  | 6.8   |      |      |
|                                                                        | Total     | 59 | 100.0 |      |      |

Table 7, indicates that 28.8% of respondent instructors rated their level of involvement in formulation of educational research agendas as medium, more than 37% of respondent instructors rated as high and very high (high = 27.1% and very high = 10.2%, 23.7% rated as low, and 10.2% rated as very low (M=3.05, SD=1.17). Hence, one can deduce from the data that the level of instructors' involvement in formulation of educational research was at medium level.

Instructors were also asked to what level they are involved in review of educational research agenda at their department. Accordingly, 27.1% of respondent instructors rated as medium, 23.7% rated as high, while 22.0% rated as low. Respondent instructors who rated as very low and very high take equal portion ( $N= 8$ , 13.6%) each ( $M=3.02$ ,  $SD=1.52$ ). Thus, from this data we can say that the level of instructors' involvement in review of education research agenda was medium.

Research-active instructors are expected to share ideas with other faculty researchers regarding research works. Thus, instructors were also asked to indicate the extent to which they share research ideas with other faculty researchers. Concerning this, 45.8% of respondent instructors rated as low, 16.9% rated as very low, 32.2% rated as medium. The rest 5.1% rated as high ( $M=3.25$ ,  $SD=0.80$ ). The data, therefore, indicates that the level of instructors' participation in sharing ideas with other faculty researchers regarding research works was also medium.

Another indicator of instructors' status related to educational research is the level of their assistance to other faculty researchers in their research activities. In this regard, 52.5% of instructors have rated their level of assistance to other faculty researchers as medium, 20.3% rated as low, 3.4% rated as very low, while 13.6% and 10.2% of respondents rated as high and very high, respectively ( $M=3.07$ ,  $SD=0.94$ ). Thus, it implies that the level of instructors' assistance to other faculty researchers in their research activities was at medium level.

The last question forwarded to respondent instructors to assess the status of educational research practice was to rate their own level of overall involvement in educational research activities. Thus, 45.8 % of respondent instructors rated as medium, 28.8% rated as high, 16.9% rated as low, while 1.7% and 6.8% of respondent instructors rated as very low and very high, respectively ( $M=3.22$ ,  $SD=0.87$ ). This indicates that the overall level of instructors' participation in educational research activities was at medium level.

### 4.3. The Extent of Dissemination of Educational Research Results

For research to be relevant, it must be disseminated to users and linked to practice. Dissemination could be done through publication, workshops/seminars/conference, classroom teaching, web pages, media and exhibitions, among others. In order to assess the extent of educational research results dissemination, instructors were asked to rate the level of their use of the different dissemination outlets/channels and their response is presented in Table 7.

Table 8. Research Results Disseminated

| Details                                                  |           | N  | %     | M    | SD   |
|----------------------------------------------------------|-----------|----|-------|------|------|
| Dissemination through publications                       | Very Low  | 24 | 40.7  | 2.41 | 1.38 |
|                                                          | Low       | 8  | 13.6  |      |      |
|                                                          | Medium    | 9  | 15.3  |      |      |
|                                                          | High      | 15 | 25.4  |      |      |
|                                                          | Very High | 3  | 5.1   |      |      |
|                                                          | Total     | 59 | 100.0 |      |      |
| Dissemination through workshops, seminars and conference | Very Low  | 4  | 6.8   | 3.36 | 1.00 |
|                                                          | Low       | 6  | 10.2  |      |      |
|                                                          | Medium    | 18 | 30.5  |      |      |
|                                                          | High      | 27 | 45.8  |      |      |
|                                                          | Very High | 4  | 6.8   |      |      |
|                                                          | Total     | 59 | 100.0 |      |      |
| Dissemination through classroom teaching                 | Very Low  | 3  | 5.1   | 2.37 | .69  |
|                                                          | Low       | 35 | 59.3  |      |      |
|                                                          | Medium    | 17 | 28.8  |      |      |
|                                                          | High      | 4  | 6.8   |      |      |
|                                                          | Very High |    |       |      |      |
|                                                          | Total     | 59 | 100.0 |      |      |
| Dissemination using web pages                            | Very Low  | 35 | 59.3  | 1.51 | .70  |
|                                                          | Low       | 19 | 32.2  |      |      |
|                                                          | Medium    | 4  | 6.8   |      |      |
|                                                          | High      | 1  | 1.7   |      |      |
|                                                          | Very High |    |       |      |      |
|                                                          | Total     | 59 | 100.0 |      |      |
| Dissemination using media                                | Very Low  | 37 | 62.7  | 1.42 | .59  |
|                                                          | Low       | 19 | 32.2  |      |      |
|                                                          | Medium    | 3  | 5.1   |      |      |
|                                                          | High      |    |       |      |      |
|                                                          | Very High |    |       |      |      |
|                                                          | Total     | 59 | 100.0 |      |      |
| Dissemination using exhibitions                          | Very Low  | 34 | 57.6  | 1.51 | .65  |
|                                                          | Low       | 20 | 33.9  |      |      |
|                                                          | Medium    | 5  | 8.5   |      |      |
|                                                          | High      |    |       |      |      |
|                                                          | Very High |    |       |      |      |
|                                                          | Total     | 59 | 100.0 |      |      |

According to Table 8, 40.7% and 13.6% of respondent instructors rated the level of their research results dissemination through publications as very low and low, respectively, 15.3% rated as medium, while 25.4% rated as high. The rest 5.1% rated as very high ( $M=2.41$ ,  $SD=1.38$ ). Thus, one can understand from the data that the level of research results dissemination through publications was low.

Table 8 also indicated that 45.8% of respondent instructors rated their level of dissemination of their research results through workshops, seminars and conference as high, 30.5% rated as medium, 10.2% rated as low. 6.8% rated as very low and again .68% rated as very high ( $M=3.36$ ,  $SD=1.00$ ). The data, therefore, implies that the level of research results dissemination through workshops, seminars and conferences was medium.

As to dissemination of educational research results through classroom teaching, 59.3% of respondent instructors rated as low, 28.8% rated as medium, 6.8% rated as high, while 5.1% rated as very low ( $M=2.37$ ,  $SD=0.69$ ). Thus, one can learn from the data that level of research dissemination through classroom teaching was low.

As indicated in Table 8, 59.3% and 32.2% of respondent instructors rated the level of their research results dissemination using web pages as very low and low, respectively. While 6.8% rated as medium, only 1.7% rated as high ( $M=1.51$ ,  $SD=0.70$ ). Thus, the data reveals that dissemination of educational research results using web pages is very limited. Similarly, instructors were asked to rate the level of their research results dissemination using media. To this end, 32% and 62.7% of respondent instructors rated as low and very low while 5.1% rated as medium ( $M=1.42$ ,  $SD=0.59$ ). These data also tells that the use of media to disseminate educational research results is very low.

Finally, with regards to the level of using exhibitions to disseminate educational research results, 33.9% and 57.6% of respondent instructors rated as low and very low and the rest 8.5% rated as medium ( $M=1.51$ ,  $SD=0.65$ ). Again, one can understand from this data that the level of educational research results dissemination using exhibitions is low.

The level of educational research result dissemination through different outlets is summarized in Figure 4 below.

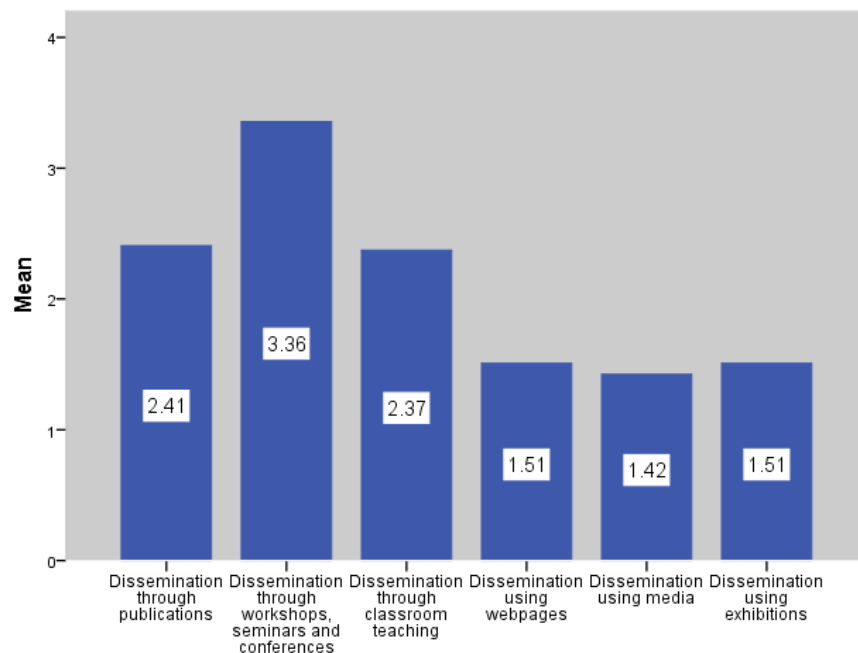


Figure 4. Dissemination of Educational Research Results

Figure 4 indicates that the most used outlets of research result dissemination are workshops, seminars and conferences ( $M=3.36$ ) followed by publications ( $M=2.41$ ). Media was the least used outlet of research result dissemination ( $M=1.42$ ). Thus, the figure reveals that dissemination of educational research results were mainly limited to printed publications and it indicates that the use of technology like web pages, media, among others, are still at enfant stage. This concern was also shared by Getaneh (2009, p. 4) “dissemination outlets for Ethiopian researches are mainly print publications and conferences and many of the publications have limited circulation”.

A study conducted by Birhanu (2009) at Colleges of Teacher Education in Tigray also showed that instructors lack opportunity to disseminate their research results. Tariku (2012), in his study of ‘the status and determinants of research’ at Ambo University, has also identified lack of

dissemination channels like workshops and lack of publication outlets like scholarly journals as major problems.

For further assessment of the extent of educational research results dissemination, the number of published and number of unpublished research works were compared against the total number of researches conducted for the last five years. Table 8 presents the comparison.

Table 9. Unpublished Research Works Vis-à-vis Researches Conducted

|                    | <b>No. of Published<br/>Research Works</b> | <b>No. of Unpublished<br/>Research Works</b> | <b>Total No. of Researches<br/>Conducted (Five Year)</b> |
|--------------------|--------------------------------------------|----------------------------------------------|----------------------------------------------------------|
| <b>Individual</b>  | 288<br>(75.2%)                             | 95<br>(24.8%)                                | 383<br>(100.0%)                                          |
| <b>Co-authored</b> | 109<br>(82.0%)                             | 24<br>(18.0%)                                | 133<br>(100.0%)                                          |
| <b>Total</b>       | 397<br>(76.9%)                             | 119<br>(23.1%)                               | 516<br>(100.0%)                                          |

As the table indicates, there were a total of 516 researches conducted by instructors during the last five years. Out of the 516 researches conducted, 23.1% of them were not published. From the total 119 unpublished researches, 95 of them were conducted by individual authors while 24 unpublished researches were co-authored.

As the interviews with I<sub>1</sub>, I<sub>2</sub> and I<sub>5</sub> indicated, the level of research result dissemination was low and this was mainly due to lack of reputable journal and research fund. In line with this, I<sub>2</sub> said:

The only reputable educational journal at the university is the Ethiopian Journal of Education (EJE) which is published by IER and due to the long queue, faculties should wait for extended period of time to pass through the peer review and get their articles published. Besides, the competition is very high as there are many articles submitted by researchers even from other local universities. CEBS has only one journal which is not reputable and it is not published regularly, even now I doubt for its existence.

Whereas, according to the university legislation, publication of research findings in reputable journals is a major condition for promotion of the university academic staff AAU (2014c). Thus, this seems contradictory with the participants' response and could raise a question that without having sufficient number of reputable journals, how could a university expect its faculty to publish their researches?

In the open-ended item of the questionnaire, one of the respondent instructors also stated that 'the dissemination is very poor. In fact, there is no need for dissemination. Why do we disseminate if no value is given to the results? It is wastage of time and money'. Similarly, one of the interviewees (I<sub>2</sub>) said that 'the college hosts conferences and invites individuals from different government and non government organizations but most people do not have the culture of attending such kind of conferences. For instance, whenever we host conferences we invite officials from Ministry of Education and others but it is unfortunate that mostly they do not come and this is very discouraging'.

#### 4.4. Major Determinant Factors to Educational Research Productivity

The study also attempted to identify the major determinant factors to educational research productivity at CEBS. According to the literature review and the conceptual model in which this study based, the major determinant factors analyzed here were categorized as individual factors and environmental factors.

##### 4.4.1. Individual Factors

The individual factors looked at the socio-demographic and career data (presented under ‘Characteristics of Respondents’ of Part I in this chapter), self knowledge and social knowledge. The last two variables (self knowledge and social knowledge) are presented as below.

##### 4.4.1.2. Self Knowledge

Self-knowledge is referred to a measure of one’s interest, confidence in one’s capabilities and sense of efficacy. Instructors’ interest determines the level of effort he/she exerts and involvement in research activities. In this regard, instructors were asked to indicate where their interests lie (in research or teaching). Table 9 below presents instructors’ response to this end.

Table 10 Instructors’ Interest (Teaching Vs Research)

| Self Knowledge Variable |                                    | N  | %     | M    | SD   |
|-------------------------|------------------------------------|----|-------|------|------|
| Interest primarily lies | Very heavily in research           | 9  | 15.3  | 2.66 | 1.02 |
|                         | Very heavily in teaching           | 16 | 27.1  |      |      |
|                         | In both, but tend towards research | 19 | 32.2  |      |      |
|                         | In both, but tend towards teaching | 14 | 23.7  |      |      |
| Total                   |                                    | 59 | 100.0 |      |      |

As indicated in Table 10, 32.2% of respondent instructors said that they are interested in both (teaching and research), but leaning towards research, 27.1% said their interest lies very heavily in teaching, 23.7% said they are interested in both, but leaning towards teaching while 15.3% said their interest lies very heavily in research ( $M=2.66$ ,  $SD=1.02$ ). This indicates that majority of respondent instructors are interested in both but tending to research. But, still considerable number of instructors was heavily interested in teaching. In this regard, Asrat (2007) found out that most of the instructors in the Education Faculty at Haramaya University lacked real interest in educational research; as a result, they were not engaged in it.

Respondent instructors were also requested to rate their level of capability of identifying worthwhile research issues, their level of skills necessary to conduct quality research and skills to report quality research. Table 11 presents instructors' self-report on research capability and skills.

Table 11. Instructors' Research Capability and Skills.

| Items                                                |           | N  | %     | M    | SD  |
|------------------------------------------------------|-----------|----|-------|------|-----|
| Capability of identifying worthwhile research issues | Very Low  |    |       |      |     |
|                                                      | Low       | 1  | 1.7   |      |     |
|                                                      | Medium    | 9  | 15.3  | 4.08 | .70 |
|                                                      | High      | 33 | 55.9  |      |     |
|                                                      | Very High | 16 | 27.1  |      |     |
|                                                      | Total     | 59 | 100.0 |      |     |
| Technical skills to conduct quality research         | Very Low  |    |       |      |     |
|                                                      | Low       | 1  | 1.7   |      |     |
|                                                      | Medium    | 12 | 20.3  | 3.98 | .71 |
|                                                      | High      | 33 | 55.9  |      |     |
|                                                      | Very High | 13 | 22.0  |      |     |
|                                                      | Total     | 59 | 100.0 |      |     |
| Technical skills to report quality research          | Very Low  |    |       |      |     |
|                                                      | Low       | 1  | 1.7   |      |     |
|                                                      | Medium    | 14 | 23.7  | 3.95 | .73 |
|                                                      | High      | 31 | 52.5  |      |     |
|                                                      | Very High | 13 | 22.0  |      |     |
|                                                      | Total     | 59 | 100.0 |      |     |

As results in Table 11 disclose, 55.9% of respondent instructors rated their capability of identifying worthwhile research issues as high, 27.1% rated as very high, 15.3% rated as medium

while only 1.7% of respondent instructors rated as low ( $M=4.08$ ,  $SD=0.72$ ). Thus, the data indicate that instructors had high level of capacity to identify worthwhile research issue and it can be said that the capability of instructors in identify worthwhile research was not a problem in research productivity. Concerning skills to conduct quality research, 55.9% of respondent instructors rated their skill as high, 22.0% rated as very high, 20.3% rated as medium while only 1.7% rated as low ( $M=3.98$ ,  $SD=0.71$ ). This also tells that the instructors' capacity to conduct quality research did not have negative contribution to research productivity. Similarly, instructors were asked to rate their level of skill necessary to report quality research. Accordingly, 52.5% of respondent instructors rated as high, 22.0% of rated as very high, 23.7% rated as medium whereas, only 1 respondent instructor rated as low ( $M=3.95$ ,  $SD=0.73$ ). Again, this data reveal that instructors' level of skill to report quality research was not a hindering factor to research productivity. This finding contradicts with the finding of Amera (2005) at Bahir Dar University, that the engagement of instructors in educational research activities was affected more by personal factors than institutional ones and among the personal factors, teachers' knowledge of educational research was found to influence other personal factors. Similarly, in the case of Haramaya University as found out by Asrat (2007), instructors who lack capacity/skill in educational research methodology and methods were suffice to mention for his particular study.

Self-efficacy looks at how much effort instructors expend and their commitment in research activities. It also assesses instructors' level of ambition, competitiveness and persistence with regards to research. Respondent instructors' self-report is presented in Table 12 below.

Table 12. Instructors' Self-efficacy

| Items                                                       |           | N  | %     | M    | SD   |
|-------------------------------------------------------------|-----------|----|-------|------|------|
| Effort to obtain research grant                             | Very Low  | 8  | 13.6  | 2.58 | .91  |
|                                                             | Low       | 18 | 30.5  |      |      |
|                                                             | Medium    | 24 | 40.7  |      |      |
|                                                             | High      | 9  | 15.3  |      |      |
|                                                             | Very High |    |       |      |      |
|                                                             | Total     | 59 | 100.0 |      |      |
| Effort to get one's writing accepted for publication        | Very Low  | 5  | 8.5   | 3.02 | 1.06 |
|                                                             | Low       | 13 | 22.0  |      |      |
|                                                             | Medium    | 21 | 35.6  |      |      |
|                                                             | High      | 16 | 27.1  |      |      |
|                                                             | Very High | 4  | 6.8   |      |      |
|                                                             | Total     | 59 | 100.0 |      |      |
| Commitment to conduct educational research                  | Very Low  | 1  | 1.7   | 3.46 | .953 |
|                                                             | Low       | 7  | 11.9  |      |      |
|                                                             | Medium    | 24 | 40.7  |      |      |
|                                                             | High      | 18 | 30.5  |      |      |
|                                                             | Very High | 9  | 15.3  |      |      |
|                                                             | Total     | 59 | 100.0 |      |      |
| Ambition to conduct educational research                    | Very Low  |    |       | 3.93 | .91  |
|                                                             | Low       | 2  | 3.4   |      |      |
|                                                             | Medium    | 20 | 33.9  |      |      |
|                                                             | High      | 17 | 28.8  |      |      |
|                                                             | Very High | 20 | 33.9  |      |      |
|                                                             | Total     | 59 | 100.0 |      |      |
| Competitiveness to get one's research published             | Very Low  | 3  | 5.1   | 3.00 | .95  |
|                                                             | Low       | 14 | 23.7  |      |      |
|                                                             | Medium    | 25 | 42.4  |      |      |
|                                                             | High      | 14 | 23.7  |      |      |
|                                                             | Very High | 3  | 5.1   |      |      |
|                                                             | Total     | 59 | 100.0 |      |      |
| Persistence in the face of difficulties to conduct research | Very Low  | 3  | 5.1   | 3.14 | .99  |
|                                                             | Low       | 12 | 20.3  |      |      |
|                                                             | Medium    | 22 | 37.3  |      |      |
|                                                             | High      | 18 | 30.5  |      |      |
|                                                             | Very High | 4  | 6.8   |      |      |
|                                                             | Total     | 59 | 100.0 |      |      |

As indicated in Table 12 above, 40.7% of respondent instructors rated the level of effort they exert to obtain research grant as medium, 30.5% rated as low, while 15.3% rated as high. The rest 13.6% rated as it is very low ( $M=2.58$ ,  $SD=0.91$ ). This indicates that the level that instructors exert to obtain research grant was medium. Similarly, respondent instructors were asked to rate their own level of effort to get their writing accepted for publication. Thus, table 12

discloses that 35.6% of respondent instructors rated as medium, 27.1% rated as high while 22.0% rated as low. The remaining 8.5% and 6.8% of respondent instructors rated as very low and very high, respectively ( $M=3.02$ ,  $SD=1.06$ ). This also indicates that instructors' level of effort to get their writing accepted for publication is medium. Hence, this implies that the level of effort that instructors exert to obtain research grant and get their writing accepted for publication was not a major problem in research productivity.

Instructors that are interested in research show their commitment through their activities. In view of this, instructors were asked to report how committed they are to research. Hence, 40.7% of respondent instructors rated their commitment as medium, 30.5% rated as high and 15.3% rated as very high. The remaining 11.9% and 1.7% rated as low and very low ( $M=3.46$ ,  $SD=95$ ). The data tells that the level of instructors' commitment to research is medium did was not a major problem to educational research productivity. But contrary to the survey data, it is worth mentioning the view of one of the interviewees ( $I_2$ ) saying 'there is no commitment at all level, individual instructors, university officials and the Ministry of education at large and the deterioration of quality of education is the sign'.

Instructors with ambitious, competitive and persistence characteristics are better in obtaining research grants. With regards to the level of their own ambition, Table 12 indicates that 33.9% of respondent instructors rated as medium and equal number of respondent instructors (33.9%) rated as very high, 28.8% rated as high. The rest 3.4% rated as low. The same table (12) shows that 42.4% of respondent instructors rated their level of competitiveness to get one's research published as medium, while 23.7% rated as low, the same number of respondents 23.7% rated as high. Respondent instructors who rated as very low and very high also takes the same portion (5.1%) each ( $M=3.0$ ,  $SD=0.95$ ). This reflects that the level of instructors' competitiveness to get their research published was not a major problem to educational research productivity. Concerning instructors' level of persistency in the face of difficulties with regards to research activities, 37.3% of respondent instructors rated their own level of persistency as medium, 30.5% rated as high, whereas 20.3% rated as low. The rest 5.1% and 4 6.8% rated as very low and very high, respectively ( $M=3.14$ ,  $SD=0.99$ ). This data also indicates that there is no major problem of teachers' level of persistency that could affect the research productivity.

#### 4.4.1.2. Social Knowledge

Social knowledge consisted of instructors' perceptions of various aspects of their work environment including colleagues and administrators' support and commitment, the level of recognition and value given to faculty research, the intellectual climate and perceived institutional preference. Table 13 contains the response of respondent instructors to this end.

Table 13. Social Knowledge Variables

| <b>Social Knowledge variables</b>                                                |           | <b>N</b> | <b>%</b> | <b>M</b> | <b>SD</b> |
|----------------------------------------------------------------------------------|-----------|----------|----------|----------|-----------|
| Collegial support for individual's research in department/school                 | Very Low  | 5        | 8.5      | 2.69     | .92       |
|                                                                                  | Low       | 21       | 35.6     |          |           |
|                                                                                  | Medium    | 20       | 33.9     |          |           |
|                                                                                  | High      | 13       | 22.0     |          |           |
|                                                                                  | Very High |          |          |          |           |
|                                                                                  | Total     | 59       | 100.0    |          |           |
| Availability of research-active peers in department/school                       | Very Low  | 3        | 5.1      | 3.03     | .96       |
|                                                                                  | Low       | 14       | 23.7     |          |           |
|                                                                                  | Medium    | 23       | 39.0     |          |           |
|                                                                                  | High      | 16       | 27.1     |          |           |
|                                                                                  | Very High | 3        | 5.1      |          |           |
|                                                                                  | Total     | 59       | 100.0    |          |           |
| Colleague's commitment in conducting educational research in department          | Very Low  | 1        | 1.7      | 3.10     | .78       |
|                                                                                  | Low       | 9        | 15.3     |          |           |
|                                                                                  | Medium    | 35       | 59.3     |          |           |
|                                                                                  | High      | 11       | 18.6     |          |           |
|                                                                                  | Very High | 3        | 5.1      |          |           |
|                                                                                  | Total     | 59       | 100.0    |          |           |
| Structured support receive from supervisor/administrators in research activities | Very Low  | 16       | 27.1     | 2.10     | .94       |
|                                                                                  | Low       | 27       | 45.8     |          |           |
|                                                                                  | Medium    | 11       | 18.6     |          |           |
|                                                                                  | High      | 4        | 6.8      |          |           |
|                                                                                  | Very High | 1        | 1.7      |          |           |
|                                                                                  | Total     | 59       | 100.0    |          |           |
| Formal feedback received from supervisors about research performance             | Very Low  | 19       | 32.2     | 1.90     | .76       |
|                                                                                  | Low       | 28       | 47.5     |          |           |
|                                                                                  | Medium    | 11       | 18.6     |          |           |
|                                                                                  | High      | 1        | 1.7      |          |           |
|                                                                                  | Very High |          |          |          |           |
|                                                                                  | Total     | 59       | 100.0    |          |           |
| Recognition of research achievement at department & higher level                 | Very Low  | 9        | 15.3     | 2.53     | .95       |
|                                                                                  | Low       | 18       | 30.5     |          |           |
|                                                                                  | Medium    | 26       | 44.1     |          |           |
|                                                                                  | High      | 4        | 6.8      |          |           |
|                                                                                  | Very High | 2        | 3.4      |          |           |
|                                                                                  | Total     | 59       | 100.0    |          |           |
| One's research valued by department/college                                      | Very Low  | 4        | 6.8      | 2.85     | .98       |
|                                                                                  | Low       | 19       | 32.2     |          |           |
|                                                                                  | Medium    | 20       | 33.9     |          |           |
|                                                                                  | High      | 14       | 23.7     |          |           |
|                                                                                  | Very High | 2        | 3.4      |          |           |
|                                                                                  | Total     | 59       | 100.0    |          |           |
| Research output given credit for promotion or ranking                            | Very Low  | 3        | 5.1      | 3.07     | .92       |
|                                                                                  | Low       | 13       | 22.0     |          |           |
|                                                                                  | Medium    | 19       | 32.2     |          |           |
|                                                                                  | High      | 23       | 39.0     |          |           |
|                                                                                  | Total     | 58       | 98.3     |          |           |
|                                                                                  | Total     | 59       | 100.0    |          |           |
| Convenience of intellectual/scholarly climate                                    | Very Low  | 6        | 10.2     | 2.73     | .81       |
|                                                                                  | Low       | 11       | 18.6     |          |           |
|                                                                                  | Medium    | 35       | 59.3     |          |           |
|                                                                                  | High      | 7        | 11.9     |          |           |
|                                                                                  | Very High |          |          |          |           |
|                                                                                  | Total     | 59       | 100.0    |          |           |

As indicated in Table 13, 33.9% of respondent instructors rated the level of collegial support in research activities as medium, 35.6% rated as low while and 8.5% rated as very low, whereas 22.0% rated as high ( $M=2.69$ ,  $SD=0.92$ ). One can see from the data that the level of collegial support in research activity was at medium level and did not have a significant relationship with research productivity. In addition to collegial support, availability of research-active peers in one's department motivates instructors to be engaged in research which in turn affects the status of educational research productivity. To this end, respondent instructors were asked to rate the availability of research active peers in their department. Accordingly, the data disclosed that 39.0% of respondent instructors rated as medium, 27.1% rated as high while 23.7% rated as low. Respondent instructors who rated as very low and very high took equal portion (5.1%) each ( $M=3.03$ ,  $SD=0.96$ ). Thus, it can be said that the availability of research active peer in departments was not a major problem to research productivity. Similarly, collegial commitment is a factor that demonstrates the perceived strength of faculty commitment in research. In line with this, Table 13 shows that 59.3% of respondent instructors rated their colleagues' commitment in research as medium, 18.3% and 5.1% rated as high and very high, respectively while 15.3% rated as low. Only 1.7% of respondent instructors rated as very low ( $M=3.1$ ,  $SD=0.78$ ). Hence, the mean (3.1) indicates that the level of colleagues' commitment is at medium level and was not a major hindering factor to educational research productivity.

The availability of structured support from supervisors/administrators is another factor that determines faculty research productivity. In this regard, respondent instructors were asked to indicate the level of support they get from their supervisors in their research activities. Thus, as table 13 depicts, 45.8% of respondent instructors rated supervisors' support as low and 27.1% rated as very low. While 18.6% of respondents rated as medium, the rest 6.8% and 1.7% rated as high and very high, respectively ( $M=2.1$ ,  $SD=0.94$ ). One can understand from the data that the availability of supervisors/administrators' support related to research activity was low. It was, therefore, a hindering factor to research productivity.

Faculty researchers get encouraged when they receive formal feedback from their supervisors about their role performance. In light of this, respondent instructors were asked to rate the level

of formal feedback they receive about their research performance. Thus, 47% of respondents rated as low and 32.2% rated as very low. While 18.6% rated as medium, only 1.7% rated as high ( $M=1.9$ ,  $SD=0.76$ ). According to the data, the level of formal feedback instructors receive from their supervisors about their research performance was low. Therefore, this was another problem that negatively affected the research productivity.

Similarly, the recognition that faculties receive from the university/college for their research accomplishments contributes to their motivation to publish more and, in turn, it affects the status of educational research. Table 13 indicated that 44.1% of respondent instructors rated the level of recognition they receive as medium, 30.5% and 15.3% of respondents rated as low and very low, respectively. The rest 6.8% and 3.4% rated as high and very high, respectively ( $M=2.5$ ,  $SD=0.95$ ). This indicates that the level of recognition that faculties receive from the university/college for their research accomplishments was not satisfactory and this can have its own contribution in affecting the research productivity.

Faculty member's engagement in research will be greater when they have the belief that their research outcome is perceived to have value. In view of this, respondent instructors were requested to indicate the level to which their research valued by their departments. Accordingly, 33.9% rated as medium, 32.2% and 6.8% rated as low and very low, respectively. Whereas, 23.7% and 3.4% rated as high and very high, respectively ( $M=2.85$ ,  $SD=0.98$ ). Hence, one can learn from the data that the value given to instructors' research accomplishment was not pleasing and this could discourage instructors to conduct more researches.

Concerning the level of credit given to research output for promotion or ranking, 39.0% of respondent instructors rated as high, 32.2% rated as medium, 22.0% and 5.1% rated as low and very low, respectively. One respondent did not reply to this item ( $M=3.07$ ,  $SD=0.915$ ). The data, therefore, indicated that the level of credit given to research output for promotion/ranking was satisfactory and it had no negative contribution to research productivity.

The last question raised to instructors related to social knowledge was to indicate the level of the convenience of the intellectual/scholarly climate. Thus, 59.3% of respondent instructors rated as

medium, 18.6% and 10.2% rated as low and very low, respectively. Whereas, only 11.9% of respondents rated as high ( $M=2.73$ ,  $SD=0.806$ ). In this regard, one of the survey respondents has expressed his feeling in the open-ended item saying ‘the political environment in the university interferes on how faculties think, while a university is expected to create a climate of free thought’. According to the data, it is difficult to say the overall intellectual climate of the University is supportive of instructors to be productive researchers. Thus, it can have its own negative contribution to educational research productivity.

#### 4.4.2. Environmental Variables

Environmental variables were thought to be factors related to teaching and administrative work loads, financial and material provisions and clerical assistances related to research activities. Table 13 presents instructors’ teaching load and other work load in hours per week.

Table 14. Self-Reported Instructors’ Teaching and other Work Load

| Environmental<br>Variables                            | Hours Per Week |      |      |      |       |      |     |      | Total |       |
|-------------------------------------------------------|----------------|------|------|------|-------|------|-----|------|-------|-------|
|                                                       | <6             |      | 6-10 |      | 11-15 |      | >15 |      |       |       |
|                                                       | N              | %    | N    | %    | N     | %    | N   | %    | N     | %     |
| Teaching Load                                         | 6              | 10.2 | 17   | 28.8 | 30    | 50.8 | 6   | 10.2 | 59    | 100.0 |
| Advising Students on<br>their research paper          | 4              | 6.8  | 36   | 61.0 | 12    | 20.3 | 6   | 10.2 | 59    | 100.0 |
| Internal services other than<br>teaching and advising | 5              | 8.5  | 13   | 22.0 | 19    | 32.2 | 21  | 35.6 | 59    | 100.0 |
| External service                                      | 25             | 42.4 | 21   | 35.6 | 8     | 13.6 | 3   | 5.1  | 59    | 100.0 |

As one can see from Table 14 above, 50.8% of respondent instructors had from 11 to 15 hours of teaching load per week, 28.8% of respondent instructors had from 6 to 10 hours of teaching load per week, 10.2% of respondent instructors had more than 15 hours of teaching load per week, while the rest 10.2% had less than 6 hours of teaching load per week. Regarding hours spend on students’ advisory service on their research works, the same table (14) indicates that 61.0% of

respondent instructors advise students from 6-10 hours per week, 10.2% advise for more than 15 hours per week while 6.8% of instructors advise for less than 6 hours per week.

In addition, respondent instructors were asked to indicate the number of hours they spend on internal services other than teaching and advising. This included committee works, administrative works, and other departmental or college works. The data showed that 35.6% of instructors spend more than 15 hours per week on internal services, 32.2% spend from 11-15 hours per week, 22.0% spend from 6-10 hours per week, while 8.5% spend less than 6 hours on internal services other than teaching and advising. Concerning the number of hours instructors spend on external services, 42.4% of respondent instructors spend less than 6 hours per week, 35.6% spend from 6-10 hours per week, 13.6% spend from 11-15 hours per week whereas 5.1% spend more than 15 hours per week.

Thus, the data, in general indicates that instructors are busy with classroom teaching, advising students, and administrative works. According to the interview result with an Associate Dean (I<sub>1</sub>):

Normally instructors are not allowed to take more than 12 credit hours which is a total of 12 contact hours per week. But, most instructors teach in the evening class to get overtime pay and they are also busy with consultancy and other personal works to make living because the university salary scale is very low. For instance, the gross salary for Assistant Professor is about Birr 5,400 which does not go beyond covering fuel expense. Besides, there is no incentive that motivates instructors to engage in research.

According to AAU senate legislation, instructors have to allocate 25% of their total time to do research (AAU, 2013c). But as expressed by another interviewee (I<sub>2</sub>) ‘practically, this is not what is happening in the university. And this is mainly because the University does not take any measure on those who do not conduct research’. This was also articulated by one of the survey respondents on the open-ended item saying: ‘In practice, publication is not a requirement to stay in the university. The university is not taking any measure on those who do not publish nor is the university accountable for failing to support research projects’.

As Tessema (2009) indicated, the heavy workload and engaging in routine tasks have been found to be a problem in Ethiopian higher education. This was also confirmed by a study result by Tariku (2012) that work load/being busy in teaching and other consultative works was found as having significant hindering contribution to instructors' participation in educational research at Ambo University.

The other factors under environmental variables were financial & material provisions and clerical assistances related to research activities. The response of instructors concerning these variables is presented in Table 15 below.

Table 15. Instructors Response on Environmental Variables

| Environmental variables                                              |           | N  | %     | M    | SD   |
|----------------------------------------------------------------------|-----------|----|-------|------|------|
| Provision of research fund                                           | Very Low  | 20 | 33.9  | 1.86 | .78  |
|                                                                      | Low       | 29 | 49.2  |      |      |
|                                                                      | Medium    | 8  | 13.6  |      |      |
|                                                                      | High      | 2  | 3.4   |      |      |
|                                                                      | Very High |    |       |      |      |
|                                                                      | Total     | 59 | 100.0 |      |      |
| Convenience of the process to get research funds                     | Very Low  | 26 | 44.1  | 1.71 | .77  |
|                                                                      | Low       | 26 | 44.1  |      |      |
|                                                                      | Medium    | 5  | 8.5   |      |      |
|                                                                      | High      | 2  | 3.4   |      |      |
|                                                                      | Very High |    |       |      |      |
|                                                                      | Total     | 59 | 100.0 |      |      |
| Provision of computing equipment necessary for research activities   | Very Low  | 6  | 10.2  | 2.58 | .89  |
|                                                                      | Low       | 23 | 39.0  |      |      |
|                                                                      | Medium    | 20 | 33.9  |      |      |
|                                                                      | High      | 10 | 16.9  |      |      |
|                                                                      | Very High |    |       |      |      |
|                                                                      | Total     | 59 | 100.0 |      |      |
| Access to internet connection                                        | Very Low  | 1  | 1.7   | 3.46 | .90  |
|                                                                      | Low       | 8  | 13.6  |      |      |
|                                                                      | Medium    | 18 | 30.5  |      |      |
|                                                                      | High      | 27 | 45.8  |      |      |
|                                                                      | Very High | 5  | 8.5   |      |      |
|                                                                      | Total     | 59 | 100.0 |      |      |
| Access to books, journals and other reference materials for research | Very Low  | 1  | 1.7   | 3.24 | .70  |
|                                                                      | Low       | 5  | 8.5   |      |      |
|                                                                      | Medium    | 33 | 55.9  |      |      |
|                                                                      | High      | 19 | 32.2  |      |      |
|                                                                      | Very High | 1  | 1.7   |      |      |
|                                                                      | Total     | 59 | 100.0 |      |      |
| Availability of Library Space                                        | Very Low  | 1  | 1.7   | 3.05 | .78  |
|                                                                      | Low       | 12 | 20.3  |      |      |
|                                                                      | Medium    | 30 | 50.8  |      |      |
|                                                                      | High      | 15 | 25.4  |      |      |
|                                                                      | Very High | 1  | 1.7   |      |      |
|                                                                      | Total     | 59 | 100.0 |      |      |
| Availability of enough office space                                  | Very Low  | 5  | 8.5   | 3.05 | 1.04 |
|                                                                      | Low       | 11 | 18.6  |      |      |
|                                                                      | Medium    | 23 | 39.0  |      |      |
|                                                                      | High      | 16 | 27.1  |      |      |
|                                                                      | Very High | 4  | 6.8   |      |      |
|                                                                      | Total     | 59 | 100.0 |      |      |
| Clerical assistance related to research activities                   | Very Low  | 21 | 35.6  | 1.97 | .85  |
|                                                                      | Low       | 20 | 33.9  |      |      |
|                                                                      | Medium    | 17 | 28.8  |      |      |
|                                                                      | High      | 1  | 1.7   |      |      |
|                                                                      | Very High |    |       |      |      |
|                                                                      | Total     | 59 | 100.0 |      |      |

According to Table 15, 49.2% of respondent instructors rated that the level of provision of research fund was low and 33.9% very low. While 13.6% rated as medium, only 3.4% rated as high. This implies that there is limited provision of research fund by the University and this could be a hindering factor to research productivity. Respondent instructors were also requested to rate the level of the convenience of the process to get research funds. Thus, 88.2% of respondent instructors rated as low and very low 44.1% each, 8.5% rated as medium while only 3.4% rated as high. Thus, one can understand from this data that the process to get research fund is not convenient and this does not encourage instructors to apply for research fund.

The interview held with the Head of one of the departments (I<sub>2</sub>) also revealed that:

The university calls for proposals based on the thematic researches but most instructors are not interested to submit proposals because the budget that the university allocates is not sufficient. Besides, there is no professional pay except allowance which does not even cover the transport and lodging cost plus the process to settle payments is inconvenient. Thus, very limited number of instructors applies.

Tariku (2012), in his study of ‘the status and determinants of research’ at Ambo University, also identified lack of research fund as the major determinant hindering factor to research productivity. Endashaw (1995) has also indicated years back in his study of the status of research in higher learning institutions in Ethiopia, that insufficient research funding was one important problem associated with the low level of research undertakings in many institutions.

The other question forwarded to respondent instructors was to rate the level of provision of computing equipment necessary for research activities. Accordingly, 39.0% of respondent instructors rated as low, 33.9% rated as medium while 16.9% rated as high. The remaining 10.2% rated as very low ( $M=2.58$ ,  $SD=0.89$ ). Thus, the data indicates that the availability of computing equipment was somewhat satisfactory and did not have a major negative effect on the research productivity. But a similarly study conducted at Mekelle University by Kiflom (2009) indicated that shortage of computing equipment was a major hindering factor to research productivity.

With regards to the level of availability of internet connection, Table 15 depicts that 45.8% of respondent instructors rated as high, 30.5% rated as medium, 13.6% rated as low. While 8.5% of respondent instructors rated as very high, only 1.7% rated as very low ( $M=3.46$ ,  $SD=0.90$ ). Moreover, respondent instructors were asked to indicate the level of availability of books, journals and other reference materials for research. To this end, 33 55.9% of respondent instructors rated as medium, 32.2% rated as high while 8.5% rated as low. Respondent instructors who rated as very low and very high took equal portion ( $N=1$ , 1.7%) each. Thus, the data tells that the level of availability of books and other reference materials is at satisfactory level and that does not seem to be a hindering factor of instructors' research productivity. This finding was contrary to a similar study conducted at Mekelle University by Kiflom (2009) on "The Status of Mekelle University Research Undertaking" His finding indicated that lack of recent reference materials in the library and insufficient internet access were among the major determinant factors to research activity.

Concerning the level of availability of library space, 50.8% rated as medium, 25.4% rated as high, while 20.3% rated as low. Respondent instructors who rated as very low and very high took equal portion ( $N=1$ , 1.7%) each ( $M=3.05$ ,  $SD=0.78$ ). As to the level of availability of enough office space, the same table (15) shows that 39.0% of respondent instructors rated as medium, 27.1% rated as high while 18.6% rated as low. 8.5% of respondent instructors rated as very low whereas 6.8% rated as very low ( $M=3.05$ ,  $SD=1.04$ ). Thus, the data show that the availability of enough office space is at reasonable level and could not have a significant negative contribution to educational research productivity.

Finally, respondent instructors were asked to rate the level of availability of clerical assistance related to research activities. Thus, 33.9% and 35.6% of respondent instructors rated as low and very low, respectively, 28.8% rated as medium while only 1 (1.7%) rated as high ( $M=1.97$ ,  $SD=0.85$ ). Thus, the data reveals that the clerical assistance that instructors receive is very minimal. This problem was also expressed by one of the survey respondents in the open ended item of the questionnaire saying 'the issue of having clerical assistance looks like a forgotten area at AAU'. Thus, it indicates that lack of clerical assistance makes instructors busy in routine secretarial works and that could affect their research productivity.

Other hindering factors to educational research productivity which were stated by study participants are listed as below.

- Less salary and lack of incentives. One of the survey respondent on the open-ended item expressed this concern as “where life is a critical challenge, how can research and research sentiment prevail? It is said ‘the poor lives in the present’”. Similarly another survey respondent said that ‘how can the university expect us to conduct research without having daily bread’.
- Limited number of journals
- Lack of scholarly communication and discussion especially between experienced colleagues and junior ones.
- Instructors’ greater value for monetary benefits than knowledge production

#### 4.5. Salient Predictors for Educational Research Output

First, the correlation matrix was used to indicate both the magnitude and direction of the linear relationship of the dependent and independent variables. Then, linear regression was used to identify the salient variables and develop a model that could predict the research output using the predictive independent variables. Table 16 presents the relationship among the study variables.

Table 16. Correlation Matrix for Study Variables

| Variables                           | 1      | 2      | 3      | 4      | 5      | 6 |
|-------------------------------------|--------|--------|--------|--------|--------|---|
| <b>1 Research Output</b>            | 1      |        |        |        |        |   |
| <b>2 Socio Demographic Variable</b> | .396** | 1      |        |        |        |   |
| <b>3 Career Variable</b>            | .610** | .713** | 1      |        |        |   |
| <b>4 Self Knowledge Variable</b>    | .579** | .360** | .608** | 1      |        |   |
| <b>5 Social Knowledge Variable</b>  | .372** | .258*  | .364** | .396** | 1      |   |
| <b>6 Environmental Variable</b>     | .004   | .112   | .116   | .032   | .340** | 1 |

\*\* P < 0.01

\* P < 0.05

As indicated in Table 16, research output had a strong positive correlation with four variables (socio-demographic, career, self knowledge, social knowledge) at  $p < 0.01$ , except environmental variable. Socio-demographic variable was also strongly correlated to career and self-knowledge variables at  $p < 0.01$  and with social knowledge at  $p < 0.05$ . With regards to career variable, it was strongly correlated to self-knowledge and social knowledge at  $p < 0.01$ . As for self-knowledge, it was correlated to social knowledge at  $p < 0.01$ . Social knowledge was strongly correlated to environmental variable at  $p < 0.01$ . However, environmental variable was not correlated to any other variable but social knowledge ( $p < 0.01$ ).

Thus, factors that correlated strongly with research output were four: socio-demographic, career, self knowledge, social knowledge ( $p < 0.01$ ).

Next, in order to indentify the salient variables and to explain how the variation in the dependent variable depends on the variation in the independent variables, linear regression was adapted. Table 17 contains the linear regression of variables.

Table 17. Coefficient of Determination

| <b>R</b>          | <b>R Square</b> | <b>Sig. F Change</b> |
|-------------------|-----------------|----------------------|
| .679 <sup>a</sup> | .461            | .000                 |

Table 18. Linear Regression of Variables

| <b>Independent Variables</b>                |          |                   | <b>T</b> | <b>P</b> |
|---------------------------------------------|----------|-------------------|----------|----------|
|                                             | <b>B</b> | <b>Std. Error</b> |          |          |
| (Constant)                                  | -15.758  | 7.984             | -1.974   | .054     |
| Socio-demographic                           | -.277    | 1.334             | -.208    | .836     |
| Career                                      | 1.104    | .452              | 2.440    | .018     |
| Self Knowledge                              | .376     | .179              | 2.093    | .041     |
| Social Knowledge                            | .233     | .182              | 1.277    | .207     |
| Environment                                 | -.211    | .225              | -.940    | .352     |
| <b>Dependent Variable = Research Output</b> |          |                   |          |          |

The coefficient of determination (R squared) was derived as 0.461. This shows the ratio of explained variation to total variation. It implies that 46.1% of the variation of the dependent variable (research output) can be accounted for by the independent variables (socio-demographic, career, self knowledge, social knowledge and environmental variables). Thus, the statistical results prove that positive and strong linear relationships exist between the dependent and independent variables.

The second column of the regression in Table 18 indicates the Beta weights ( $\beta$ ). Beta weights ( $\beta$ ) signify the contribution of each predictor variable in explaining the dependent variable (research output), and the last column shows the p-value. Accordingly, career variable was found to be the strongest predictor of research output with  $\beta_1=1.104$ , p-value (0.02) < 0.05, followed by self knowledge with  $\beta_2=0.376$ , p-value (0.04) < 0.05. This implies that career and self knowledge characteristics had the highest effect on research output.

Thus, the regression equation used for the development of the research model was:  
 $\hat{Y} = -15.76 + 1.104 X_1 + 0.376 X_2$ , where:

$\hat{Y}$  = Expected value of the dependent variable, in this case, research output

B = Y-intercept (a constant term)

$X_1$ , and  $X_2$  = independent variables, where  $X_1$  – career, and  $X_2$  – self knowledge

The regression model assumed the following: the relationship between the dependent and independent variables is linear; the variance around the regression line is constant; and for each combination of the values of the independent variables, the values of the dependent variables are independent and normally distributed.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

This chapter summarizes the major findings of the study and draws conclusion on the basis of the findings. At the end, recommendations, that are thought to be helpful to address the problems, are forwarded.

### **5.1. Summary**

The purpose of this study was to assess the status and challenges of educational research undertaking and dissemination at CEBS, AAU. In line with this, attempts were made to find possible answers for the following research questions:

1. What is the current status of educational research practices at CEBS?
2. To what extent are educational research outputs disseminated?
3. What are the major determinant factors to educational research productivity in CEBS?
4. What are the salient predictors for educational research output?

The independent variables for the study were categorized in to two: individual and environmental variables while the dependent variable was research output. The individual variables included socio-demographic, career, self-knowledge and social-knowledge. The environmental variables looked at the financial and material provisions, clerical assistances. The study was purposefully delimited to College of Education and Behavioral Studies (CEBS) since ‘educational’ research is primarily expected from this college. Mixed research approach was used since a combination of different approaches (triangulation) yields solid findings. Data sources for this study were both primary and secondary ones. Primary data were collected from instructors at CEBS through questionnaires, and also interview was held with 5 key participants (1 Associate Dean for Research and Technology Transfer, and 4 members of Research Council Committee at CEBS). In Addition, documents were used as secondary data sources. Regarding the sample, all (six) departments at CEBS were included using availability sampling technique

since the departments were limited in number. Then, from the six departments, were sampled using random sampling technique.

A pilot study was made at Department of Science & Mathematics Education in order to pre-test the survey instrument, identify any shortcoming and make the necessary modification to the items before the actual data collection is carried out. Thus, the questionnaire was tested for reliability yielding a 0.81 Cronbach's Alpha, which indicated a high reliability. In order to assure the validity of the questionnaire, it was reviewed by SPSS instructor and two classmate researchers and correction has been made based on the useful insights gained from their comments especially about the clarity of questions and instructions. After assuring the reliability and validity of the instruments, the main data collection activity was conducted. Interview with the selected respondents was carried out while waiting for the return of distributed questionnaires. In the mean time, document analysis was done.

The quantitative data was analyzed using descriptive statistics (frequencies, percentages, means and standard deviations) and inferential statistics (correlation matrix and linear regression). Narratives, quotations and the use of thematic categories were the main approaches to illustrate main results from the qualitative data.

The major findings from the study are summarized as follows:

1. The total number of educational publications (including articles submitted for publication) by instructors during the last five years was 397 and instructors have produced in average from 6 to 7 publications during the last five years. But, there were instructors who did not have any publication during the last five years and it was also noticed a big variance in number of publication among instructors.
2. It was also found out that the number of articles published in conference proceedings takes the bigger portion, 28.5%, followed by articles published in journals, 23.9%. Whereas, the smallest portion (2.3%) of publications was found to be articles published in monographs. Furthermore, the mean of articles on conference proceedings (1.61) and mean of articles on

journals (1.92) indicated that instructors had averagely 1 to 2 articles published on conference proceedings and journals during the last five years.

3. Similarly, the means of articles published in magazines ( $M=0.44$ ), articles published in monographs ( $M=0.16$ ), articles published in newspapers ( $M=0.46$ ), books published ( $M=0.40$ ), book chapters published ( $M=0.78$ ), other published works ( $M=0.36$ ), and research works submitted for publications ( $M=0.61$ ) revealed that average number of outputs for each aforementioned types of publications during the last five years was less than 1.
4. Using the mean and standard deviation of the total publication, instructors were categorized in to four (high level participants, average level participants, low level participants and none participants) according to their number of research publications. As a result, 42.4% of instructors were found to be medium level participants in educational research, more than 37% of instructors were low and very low level participants (28.8% = low level participants and 8.5% = very low level participants), while 20.3% of instructors were high level participants. The interview result also confirmed the medium status of educational research practice.
5. It was also found that there were a total of 89 ongoing researches by instructors out of which 47.6% were by individual instructors, while 52.4% were collaborative. Though the average number of ongoing researches ( $M=1.51$ ) looks promising, it was revealed that there were instructors who were not conducting research during this study and the variance was also big.
6. The mean of publication by male instructors ( $M=7.19$ ) was found to be by far greater than that of females ( $M=2.67$ ). It was further found out that the publication difference in terms of sex was mainly due to the less number female instructors in the sample. As to age category, the bigger mean of publication was belong to instructors with age above 56 ( $M=15.33$ ), while the smaller mean of publication ( $M=1.93$ ) goes to the age group of 26-35. In terms of marital status, married instructors had the bigger mean of publication ( $M=8.39$ ) while single instructors had  $M=3.12$ . It was also observed that the publication gap due to marital status had to do with instructors' age as well.

7. With regards to publication against instructors' qualification, the mean of publication by instructors with PhD (10.78) was by far greater than the mean of publication by instructors with masters degree (3.42). Similarly, instructors who earned their highest degree from foreign institutions had the bigger mean of publication ( $M=11.84$ ) compared to the mean of publication by instructors who earned their highest degree from local institutions ( $M=2.97$ ). It was also learned that Associate professors had the bigger mean of publication ( $M=15.83$ ) while instructors at lecturer level had the smaller mean of publication ( $M=2.37$ ). In terms of instructors' service year in academia, the bigger mean of publication (11.57) was belong to instructors who served from 21-25 years ( $M=12.43$ , 8.70), followed by instructors who served for more than 25 year ( $M=11.57$ ,  $SD=11.01$ ), while the smaller mean ( $M=2.25$ ) goes to instructors who served for less than 6 years.
8. It was also observed that majority 28.8% of instructors rated their level of involvement in formulation of educational research agendas at medium level, more than 37% rated as high and very high 23.7% rated as low, and 10.2% rated as very low ( $M=3.05$ ). As to their level of involvement in review of educational research agenda, 27.1% rated as medium, 23.7% rated as high, while 22.0% rated as low. Instructors who rated as very low and very high took equal portion ( $N= 8$ , 13.6%) each ( $M=3.02$ ).
9. Concerning the extent to which they share research ideas with other faculty researchers, 45.8% of instructors rated as low, 16.9% rated as very low, 32.2% rated as medium. The rest 5.1% rated as high ( $M=3.25$ ,  $SD=0.801$ ). With regards to their level of assistance to other faculty researchers, 52.5% of instructors have rated as medium, 20.3% rated as low, 3.4% rated as very low, while 13.6% and 10.2% of instructors rated as high and very high, respectively ( $M=3.07$ ). Finally, 45.8 % of instructors have rated their own level of overall involvement in educational research activities as medium, 28.8% rated as high, 16.9% rated as low, while 1.7% and 6.8% rated as very low and very high, respectively ( $M=3.22$ ).

### **The Extent of Educational Research Results Dissemination**

10. It was found out that 40.7% and 13.6% of instructors rated the level of instructors' research results dissemination through publications as very low and low, respectively, 15.3% rated as medium, while 25.4% rated as high. The rest 5.1% rated as very high (M=2.41). Regarding dissemination through workshops, seminars and conference, 45.8% of instructors rated as high, 30.5% rated as medium, 10.2% rated as low. Instructors who rated as very low and very high took the same portion (N=4, 6.8%) each (M=3.36).
11. As to dissemination of educational research results through classroom teaching, 59.3% rated as low, 28.8% rated as medium, 6.8% rated as high, while 5.1% rated as very low (M=2.37). Regarding the level of dissemination using web pages 59.3% and 32.2% of instructors rated as very low and low, respectively. While 6.8% rated as medium, only 1.7% rated as high (M=1.51). Similarly, 32% and 62.7% of instructors rated the level of their research results dissemination using media as low and very low while 5.1% rated as medium (M=1.42,) Finally, with regards to the level of using exhibitions to disseminate educational research results, 33.9% and 57.6% of instructors rated as low and very low and the rest 8.5% rated as medium (M=1.51).
12. It was also learned that the most used outlets of research result dissemination were workshops, seminars and conferences (M=3.36) followed by publications (M=2.41). Media was the least used outlet of research result dissemination (M=1.42).
13. Moreover, out of the 516 researches conducted, 23.1% of them were not published. It was also indicated that as the college journal is not reputable, instructors are not encouraged to publish on the college journal.

### **Major Determinant Factors to Educational Research Productivity**

14. It was found that 32.2% of instructors said they are interested in both (teaching and research), but tending towards research, 27.1% said their interest lies very heavily in teaching, while only 15.3% of instructors said their interest lies very heavily in research (M=2.66).

15. Concerning instructors' level of capability of identifying worthwhile research issues, 33.9% of instructors rated high, 27.1% rated as very high, 15.3% rated as medium while only 1.7% of instructors rated as low ( $M=4.08$ ). With regards to their skills to conduct quality research, 55.9% of instructors rated their skill as high, 22.0% rated as very high, 20.3% rated as medium while only 1.7% rated as low ( $M=3.98$ ). Similarly, 52.5% of instructors rated their level of skill necessary to report quality research as high, 22.0% rated as very high, 23.7% rated as medium whereas, only 1.7% of instructors rated as low ( $M=3.95$ ).
16. Regarding the level of effort instructors exert to obtain research grant, 40.7% of instructors rated the as medium, 30.5% rated as low, while 15.3% rated as high. The rest 13.6% rated as very low ( $M=2.58$ ). Similarly, 35.6% of instructors rated their own level of effort to get their writing accepted for publication as medium, 27.1% rated as high while 22.0% rated as low. The remaining 8.5% and 6.8% of instructors rated as very low and very high, respectively ( $M=3.02$ ). In terms of their commitment to research 240.7% rated as medium, 30.5% rated as high and 15.3% rated as very high. The remaining 11.9% and 1.7% rated as low and very low ( $M=3.46$ ).
17. With regards to the level of their ambition, 33.9% of instructors rated as medium and equal number of instructors (33.9%) rated as very high, 28.8% rated as high. The rest 3.4% rated as low. Regarding their level of competitiveness to get one's research published 42.4% rated as medium, while 23.7% rated as low, the same number of portion (23.7%) rated as high. Concerning instructors' level of persistency in the face of difficulties related to research activities, 37.3% rated as medium, 30.5% rated as high, whereas 20.3% rated as low. The rest 5.1% and 4 6.8% rated as very low and very high, respectively ( $M=3.14$ ).
18. As to the level of collegial support in research activities, 33.9% of instructors rated as medium, 35.6% rated as low while and 8.5% rated as very low, whereas 22.0% rated as high ( $M=2.69$ ). In terms of availability of research active peer in departments, 39.0% of instructors rated as medium, 27.1% rated as high while 23.7% rated as low. Instructors who rated as very low and very high took equal portion ( $N=3$ , 5.1%) each ( $M=3.03$ ). Moreover, 59.3% of instructors rated their colleagues' commitment in research as medium, 18.3% and

5.1% rated as high and very high, respectively while 15.3% rated as low. Only 1.7% of instructors rated as very low (M=3.1).

19. Related to the availability of structured support from supervisors/administrators, 45.8% rated as low and 27.1% rated as very low. While 18.6% rated as medium, the rest 6.8% and 1.7% rated as high and very high, respectively (M=2.1). Concerning the level of formal feedback they receive about their research performance, 47% of instructors rated as low and 32.2% rated as very low. While 18.6% rated as medium, only 1.7% rated as high (M=1.9). Similarly, 44.1% of instructors rated the level of recognition they receive as medium, 30.5% and 15.3% of instructors rated as low and very low, respectively. The rest 6.8% and 3.4% rated as high and very high, respectively (M=2.5).

20. Concerning the level to which their research outcome is valued by their departments, 33.9% rated as medium, 32.2% and 6.8% rated as low and very low, respectively. Whereas, 23.7% and 3.4% rated as high and very high, respectively (M=2.85). In terms of the level of credit given to research output for promotion or ranking, 39.0% of instructors rated as high, 32.2% rated as medium, 22.0% and 5.1% rated as low and very low, respectively (M=3.07). Related to the level of the convenience of the intellectual/scholarly climate, 59.3% of instructors rated as medium, 18.6% and 10.2% rated as low and very low, respectively. Whereas, only 11.9% of instructors rated as high (M=2.73).

21. It was also observed that 50.8% of instructors had from 11 to 15 hours of teaching load per week, 10.2% of instructors had more than 15 hours of teaching load per week, while the rest 10.2% had less than 6 hours of teaching load per week. Regarding hours spent per week on students' advisory service on their research works, 61.0% indicated from 6-10 hours, 10.2% indicated more than 15 hours while 6.8% indicated less than 6 hours per week. Regarding the number of hours they spend per week on internal services other than teaching and advising, 35.6% indicated more than 15 hours, 32.2% indicated from 11-15 hours per week, 22.0% indicated from 6-10 hours per week, while 8.5% spend less than 6 hours per week. Concerning the number of hours instructors spend per week on external services, 42.4%

indicated less than 6 hours per week, 35.6% indicated from 6-10 hours, 13.6% indicated from 11-15 hours, whereas 5.1% spend more than 15 hours per week.

22. It was revealed that 49.2% of instructors rated the level of provision of research fund as low and 33.9% rated as very low, while only 3.4% rated as high (M=1.85). Similarly, with respect to the level of the convenience of the process to get research funds, 88.2% of instructors rated as low and very low (44.1% each), 8.5% rated as medium while only 3.4% rated as high (M=1.71). In terms of the level of provision of computing equipment necessary for research activities, 39.0% of instructors rated as low, 33.9% rated as medium while 16.9% rated as high. The remaining 10.2% rated as very low (M=2.58).
23. Moreover, it was learned that 45.8% of instructors rated the level of availability of internet connection as high, 30.5% rated as medium, 13.6% rated as low. While 8.5% of instructors rated as very high, only 1.7% rated as very low (M=3.46). Concerning the level of availability of books, journals and other reference materials for research, 55.9% of instructors rated as medium, 32.2% rated as high while 8.5% rated as low. Instructors who rated as very low and very high took equal portion (1.7%) each. Similarly, 50.8% rated the level of availability of library space, as medium, 25.4% rated as high, while 20.3% rated as low. Instructors who rated as very low and very high took equal portion (1.7%) each (M=3.05). As to the level of availability of enough office space, 39.0% of instructors rated as medium, 27.1% rated as high while 18.6% rated as low. 8.5% of instructors rated as very low whereas 6.8% rated as very low (M=3.05). Finally, 33.9% and 35.6% of instructors rated the level of availability of clerical assistance related to research activities as low and very low, respectively, 28.8% rated as medium while only 1.7% rated as high (M=1.97).
24. Other hindering factors to educational research productivity which were stated by study participants were found to be less salary and lack of incentives, limited number of journals, lack of scholarly communication, greater value for monetary benefits than knowledge production.

## **Salient Predictors for Research Output**

25. According to the correlation matrix result, factors which correlated strongly with research output were socio-demographic, career, self knowledge, social knowledge ( $p < 0.01$ ). Moreover, from the linear regression result, the R squared = 0.461 proved the positive and strong linear relationships between the dependent and independent variables. It was further indicated in the linear regression result that career variable with  $B_1=1.104$ , p-value ( $0.02 < 0.05$ ) and self knowledge with  $B_2=0.376$ , p-value ( $0.04 < 0.05$ ) had the highest effect on research output.

## **5.2. Conclusions**

Based on the findings of the study the following conclusions were drawn:

The finding indicated that the level of involvement in formulation of educational research agendas was at medium level ( $M=3.05$ ). As to their level of involvement in review of educational research agenda again it was found to be at medium level. Concerning the extent to which they share research ideas with other faculty researchers, the finding has indicated as medium ( $M=3.25$ ). With regards to their level of assistance to other faculty researchers, it was found out to be high ( $M=3.07$ ). Finally, the finding indicated that respondents rated the overall involvement of instructors in educational research activities as medium ( $M=3.22$ ). Furthermore, using the mean and standard deviation of the total publication, instructors were categorized in to four (high level participants, average level participants, low level participants and none participants) according to their number of research publications. As a result, the majority (42.4%) of instructors were found to be medium level participants in educational research. The interview result has also indicated that the status of educational research practice is at medium level. Thus, based on the finding, it is possible to conclude that the status of educational research practice at CEBS was at medium level.

The finding further indicated that majority (40.7%) of respondents rated the level of instructors' research results dissemination through publications as low with mean ( $M=2.41$ ). Regarding

dissemination through workshops, seminars and conference the bigger portion (45.8%) of instructors as high with mean ( $M=3.36$ ). As to dissemination of educational research results through classroom teaching, majority (59.3%) of them rated as low ( $M=2.37$ ). Regarding the level of dissemination using web pages again majority (59.3%) of respondents rated as very low ( $M=1.51$ ). Similarly, 32% and 62.7% of respondents rated the level of their research results dissemination using media as low and very low. Finally, with regards to the level of using exhibitions to disseminate educational research results, again majority 20 (33.9%) and 34 (57.6%) of respondents rated as low and very low ( $M=1.51$ ). Besides, it was observed that the use of outlets for research result dissemination were mostly limited to workshops, seminars and conferences ( $M=3.36$ ) followed by publications ( $M=2.41$ ). The use of media ( $M=1.42$ ), exhibition ( $M=1.51$ ) and classroom teaching ( $M=2.37$ ) was low. Moreover, the finding indicated that out of the 516 researches conducted, considerable number ( $N=119$ , 23.1%) of researchers were not published. Hence, based on the results, it is possible to conclude that the level of educational research results dissemination is low.

The finding also revealed that in terms of sex, male instructors ( $M=7.19$ ) published more than females ( $M=2.67$ ). But it was identified that the publication difference was mainly due to the less number female instructors in the study. Hence, it is difficult to deduct that male instructors publish more than females. As to age category, instructors with age above 56 ( $M=15.33$ ) published more while instructors with the age group of 26-35 published less ( $M=1.93$ ). In terms of marital status, married instructors ( $M=8.39$ ) published more than single instructors ( $M=3.12$ ). Thus, it can be concluded that from the socio-demographic factors, two variables (age and marital status) were major determinant factors to educational research productivity at CEBS.

With regards to career variable, publication in terms of instructors' qualification indicated that instructors with PhD ( $M=10.78$ ) published far greater than instructors with masters degree ( $M=3.42$ ). Similarly, instructors who earned their highest degree from foreign institutions published ( $M=11.84$ ) more compared to instructors who earned their highest degree from local institutions ( $M=2.97$ ). The finding further indicated that Associate professors had the bigger mean of publication ( $M=15.83$ ) while instructors at lecturer level had the smaller mean of publication ( $M=2.37$ ). In terms of instructors' service year in academia, the bigger mean of

publication (11.57) was belong to instructors who served from 21-25 years ( $M=12.43$ ), while the smaller mean ( $M=2.25$ ) goes to instructors who served for less than 6 years. Thus, this finding also leads to the conclusion that all career variables (instructors' qualification, highest institution where highest degree earned, academic rank and service year in academia) were major determinant factors to educational research productivity.

From the finding, one can conclude that self-knowledge variables except the level of effort instructors exert to obtain research grant ( $M=2.58$ ), were not a problem to educational research productivity. According to the finding, it can be also concluded that in terms of social-knowledge variables, availability of structured support from supervisors/administrators ( $M=2.1$ ), level of formal feedback instructors receive about their research performance ( $M=1.9$ ), and level of recognition instructors receive regarding their research accomplishment ( $M=2.5$ ) where a major problem to educational research productivity.

The finding further revealed that more than 50.8% of instructors had from 11 to 15 hours of teaching load per week and more than 10% had more than 15 hours of teaching load per week. Furthermore, more than 35% of instructors spend more than 15 hours per week on internal services other than teaching and advising. The finding from the qualitative data has also confirmed the overburden with administrative and routine works as well as heavy teaching load. Therefore, it can be concluded that the heavy teaching as well as routine and administrative works were a problem to research productivity at CEBS.

From the finding, it can also be concluded that from the environmental variables, provision of research fund ( $M=1.85$ ), level of the convenience of the process to get research funds ( $M=1.71$ ) and the level of availability of clerical assistance related to research activities ( $M=1.97$ ) were a major problem to research productivity at CEBS.

Finally, based on the finding, it is possible to conclude that from the five sets of variables, career with  $B_1=1.104$ , p-value  $(0.02) < 0.05$  and self knowledge with  $B_2=0.376$ , p-value  $(0.04) < 0.05$  were the strongest predictors of research productivity at CEBS.

### 5.3. Recommendations

Based on the findings and conclusions of this study, the following recommendations are forwarded:

The finding revealed that the weak recognition and reward system for faculty research accomplishments was a hindering factor for educational research productivity. Hence, Addis Ababa University should improve its reward and incentive mechanism for research accomplishments by its faculty members. The reward may include de-loading for those who are into research, substantial research honorarium, credit for promotion or ranking, and award for best research paper, among others. Research efforts made by faculties also should be encouraged instead of only those published or funded. For example, CEBS might consider creating evaluation models that acknowledge and reward presentations on conferences/seminars, active participation in formulation/editing of research agendas, and the like.

As the finding indicated, lack of research budget was also a problem to conduct educational research. Addis Ababa University, as visionary to be a pre-eminent African research university, should consider allocation of adequate budget for research. Availability of research fund will encourage faculty to engage in research, which will also intensify the university's research capability. For this, the college should identify and undertake programs that will attract funding for research and attract more donors in order to boost the level of funding. Besides, it was learnt that the process to get research fund was another factor that hindered faculties to conduct educational research. Thus, the university should put in place measures that enhance accessibility of research funds, and reduce bureaucratic procedures involved.

There is also evidence in this study that faculty research productivity is affected by teaching and other administrative workload. In reality, it might be quite difficult to reduce teaching time for all teachers as it is the main duty of the university and due to the increasing number of students' enrollment. Therefore, to solve this problem, the university should reduce teaching workloads for those teachers who showed high interest and commitments in conducting educational research by creating sort of criteria/system. This could also initiate other faculties to do more research. Moreover, university teachers should be given no administrative duties along with their academic duties. Administrative duties may be given to the supportive/clerical staff. There

should be also a culture of involving students, preferably from postgraduate programs, to help lecturers in their research work. Such a relationship creates mutual benefit, as the faculty member is provided assistance in publishing while the students gain critical experience in research.

The finding revealed that faculty members who earned their highest degree from foreign higher institutions had relatively bigger number of publications. This leads to a recommendation that strengthening experience sharing programs with foreign research universities and expatriates could be one means of capacity building of the university faculty.

It was also learnt that the extent of dissemination of educational research results was very limited mainly due to lack of fund and the limited number of publications. The finding disclosed that publication was mainly limited to conference proceedings and journal but other dissemination channels like exhibitions, media, web pages, magazines were not used sufficiently. On top of that, CEBS publishes only one educational journal which is not reputable and even this journal has not been published on regular bases due to budget and other problems. If educational research results are not easily accessible and usable by those who need them most, they are of limited or no practical use. Moreover, if there is no effective and ongoing dissemination of research, the effort of faculty researchers will be wasted and this discourages them to conduct research. Thus, the university should design and enforce a wider linkage with various research institutions to facilitate a wider dissemination of research findings. In addition, CEBS needs to exert further effort to find additional fund through partnership and networking with national and international organizations and institutions. Faculty researchers, on their part, should be competent and look for other opportunities to get research funds from local and international organization. The finding also indicated that instructors do not prefer the college journal as it is not reputable. Thus, it is necessary for CEBS to establish the reputability of its journal so that faculty researchers will be encouraged to publish.

Finally, it was recommended that AAU, at larger level, and CEBS in particular, should conduct self-evaluation of faculty research productivity. This will enable faculty members and administrators to know where they stand in research activities and take due measures.

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## **Appendix 1: Questionnaire for Instructors at College of Education and Behavioral Studies**

**ADDIS ABABA UNIVERSITY  
SCHOOL OF GRADUATE STUDIES  
INSTITUTE OF EDUCATIONAL RESEARCH  
Questionnaire for Instructors**

Date Administered: \_\_\_\_\_

Due date: \_\_\_\_ days after administration

Dear respondent:

The purpose of this questionnaire is to collect data for the study of “The Status and Challenges of Educational Research Undertaking and Dissemination at CEBS” for a partial fulfillment of the requirements of Masters of Art in Educational Research and Development.

Your cooperation in providing the relevant and honest information is highly important for the success of this study. I would like to assure you that your responses will be used strictly for academic purposes and highly confidential. You do not need to write your name anywhere. Please use a tick mark “√” or circle or rate or write your responses as appropriate.

Please note that ‘CEBS’ stands for ‘College of Education and Behavioral Studies’.

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

### **PART I. SOCIO-DEMOGRAPHIC AND CAREER DATA**

1.1. Sex: \_\_\_\_\_

1.2. Age: \_\_\_\_\_

1.3. Marital status: \_\_\_\_\_

1.4. Name of the Department: \_\_\_\_\_

1.5. Discipline      1) Natural Science                      2) Social Science

1.6. Educational qualification:      1) Bachelors      2) Masters      3) PhD

1.7. Higher institution where you obtained your highest degree

1) Local                      2) Foreign                      3) Sandwich

1.8. Academic Rank:

1) Assistant Lecturer      2) Lecturer      3) Assistant Professor,

4) Associate Professor 5) Professor      6) Other (Please specify), \_\_\_\_\_

1.9. Service year in academia: \_\_\_\_\_

1.10. Average teaching load (in hours) per week: \_\_\_\_\_

## **PART II: The Status of Educational Research Practice in CEBS.**

**Instructions:** For each of the items in the table below, please write the number of your research outputs you have in the past five years in the space provide. For items that you do not have research outputs, please put tick a mark ‘√’ under column ‘None’.

| No.   | Research Output Types                                              | Number of Published Products in the<br>Past <u>Five Years</u> |                                 | None |
|-------|--------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------|------|
|       |                                                                    | Individual                                                    | Collaborative<br>(as co-author) |      |
| 2.1.  | Articles published in academic or professional journals            |                                                               |                                 |      |
| 2.2.  | Articles published in Magazines                                    |                                                               |                                 |      |
| 2.3.  | Articles published in Monographs                                   |                                                               |                                 |      |
| 2.4.  | Articles published in newspapers                                   |                                                               |                                 |      |
| 2.5.  | Articles published in conference preceding                         |                                                               |                                 |      |
| 2.6.  | Books published                                                    |                                                               |                                 |      |
| 2.7.  | Book chapters published                                            |                                                               |                                 |      |
| 2.8.  | Other published research works<br>_____<br>_____<br>_____<br>_____ |                                                               |                                 |      |
| 2.9.  | Research works submitted for publications<br>_____<br>_____        |                                                               |                                 |      |
| 2.10. | Unpublished research works<br>_____<br>_____                       |                                                               |                                 |      |
| 2.11. | Ongoing research works<br>_____<br>_____<br>_____                  |                                                               |                                 |      |

**Instructions: For the following items, please indicate your choice by putting a tick mark "√" in the appropriate column using the following rates:**

**Very Low = 1; Low = 2; Medium = 3; High = 4; Very high = 5**

| No.   | The Status of Educational research practice at CEBS                                               | 1 | 2 | 3 | 4 | 5 |
|-------|---------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 2.12. | Your involvement in formulation of educational research agenda in your department/school          |   |   |   |   |   |
| 2.13. | Your involvement in review of educational research agenda of the department                       |   |   |   |   |   |
| 2.14. | Your participation in review of journal articles                                                  |   |   |   |   |   |
| 2.15. | Your participation in sharing ideas with other faculty researchers regarding proposal development |   |   |   |   |   |
| 2.16. | Your level of assistance to other faculty researchers in their research activities                |   |   |   |   |   |
| 2.17. | Your overall involvement in educational research activities                                       |   |   |   |   |   |

2.18. How do you describe the status of educational research undertaking in your college? -----  
-----  
-----  
-----

### **PART III. Major Determinant Factors to Educational Research Productivity**

3.1. About how many hours a week, on average, do you spend on internal service commitments (other than teaching and advising)?

1) Below 5 hours      2) 5 – 10 hours      3) 11 – 15 hours      4) Above 16 hours

3.2. About how many hours a week, on average, do you spend on external service commitments (service to professional organizations or others outside your institution)?

1) Below 5 hours      2) 5 – 10 hours      3) 11 – 15 hours      4) Above 16 hours

3.3. About how many hours a week, on average, do you spend on advising students on their

research papers?

- 1) Below 5 hours      2) 5 – 10 hours      3) 11 – 15 hours      4) Above 16 hours

3.4. Where does your interest primarily lie?

- 1) Very heavily in research      2) In both, but leaning towards research  
3) In both, but leaning towards teaching      4) Very heavily in teaching

**Instructions: For the following items, please indicate your choice by putting a thick mark "√" in the appropriate column using the following rates:**

**Very Low = 1;    Low = 2;    Medium = 3;    High = 4;    Very high = 5;**

| No.   | Self Knowledge Variables                                                  | 1 | 2 | 3 | 4 | 5 |
|-------|---------------------------------------------------------------------------|---|---|---|---|---|
| 3.5.  | Your capability of identifying worthwhile research issues.                |   |   |   |   |   |
| 3.6.  | Your technical skills necessary to conduct quality research.              |   |   |   |   |   |
| 3.7.  | Your technical skills necessary to report quality research.               |   |   |   |   |   |
| 3.8.  | Your level of effort to obtain grants for research activities.            |   |   |   |   |   |
| 3.9.  | Your level of effort to get your writing accepted for publication.        |   |   |   |   |   |
| 3.10. | Your level of ambition to conduct educational research                    |   |   |   |   |   |
| 3.11. | Your level of commitment to conduct educational research                  |   |   |   |   |   |
| 3.12. | Your level of competitiveness to get your educational research published  |   |   |   |   |   |
| 3.13. | Your level of persistence in the face of difficulties to conduct research |   |   |   |   |   |

|                                | <b>Social Knowledge</b>                                                                                                  | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------|----------|----------|----------|----------|
| 3.14.                          | The availability of collegial support for individual's research in your department/school.                               |          |          |          |          |          |
| 3.15.                          | Availability of research-active peers in your department/school                                                          |          |          |          |          |          |
| 3.16.                          | The level of colleague's commitment in conducting educational research in your department                                |          |          |          |          |          |
| 3.17.                          | The level of formal feedback that you receive about your research performance likerewards, incentives, salary increment. |          |          |          |          |          |
| 3.18.                          | The availability of structured support from your supervisors/administrators in relation to your research activities      |          |          |          |          |          |
| 3.19.                          | The level of recognition of research achievements at departmental and higher levels in your university                   |          |          |          |          |          |
| 3.20.                          | The level your research valued by your department/college                                                                |          |          |          |          |          |
| 3.21.                          | The extent your research output is given credit for promotion or ranking in your university                              |          |          |          |          |          |
| 3.22.                          | The convenience of the general intellectual/scholarly climate to be engaged in research activities                       |          |          |          |          |          |
| <b>Environmental Variables</b> |                                                                                                                          |          |          |          |          |          |
| 3.23.                          | The provision of research funds at your university                                                                       |          |          |          |          |          |
| 3.24.                          | The convenience of the process to get research funds at your university                                                  |          |          |          |          |          |
| 3.25.                          | Provision of computing equipment necessary for research activities                                                       |          |          |          |          |          |
| 3.26.                          | Access to internet connection                                                                                            |          |          |          |          |          |
| 3.27.                          | Access to books, previous research works and other related materials necessary for your research activities              |          |          |          |          |          |
| 3.28.                          | Availability of library space necessary for research activities                                                          |          |          |          |          |          |
| 3.29.                          | The level of clerical assistance you receive related to research activities                                              |          |          |          |          |          |
| 3.30.                          | The availability of enough office space                                                                                  |          |          |          |          |          |

3.31.What are the other factors that you think determine educational research undertaking in your department/school? -----  
-----  
-----  
-----

3.32. What should be done by the University to improve educational research productivity? -----  
-----  
-----

-----  
 -----  
 3.33. What should be done by the faculty members to improve educational research research  
 productivity? -----  
 -----  
 -----  
 -----  
 -----

## **PART IV. The Extent of Educational Research Results Dissemination**

**Instructions:** For the following items, please indicate your choice by putting a tick mark "√" in the appropriate column using the following rates:

**Very Low = 1;    Low = 2;    Medium = 3;    High = 4;    Very high = 5;**

| <b>No.</b>                                                         | <b>Research Dissemination:</b>              | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|--------------------------------------------------------------------|---------------------------------------------|----------|----------|----------|----------|----------|
| <b>The extent in which your research results are disseminated:</b> |                                             |          |          |          |          |          |
| 4.1.                                                               | through publications                        |          |          |          |          |          |
| 4.2.                                                               | through workshops, seminars and conferences |          |          |          |          |          |
| 4.3.                                                               | through classroom teaching                  |          |          |          |          |          |
| 4.4.                                                               | using webpages                              |          |          |          |          |          |
| 4.5.                                                               | using media                                 |          |          |          |          |          |
| 4.6.                                                               | using exhibitions                           |          |          |          |          |          |

4.7. How do you express the extent of research dissemination in your college?

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 -----

4.8. What are the problems that you encountered to disseminate your research results?

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 -----  
 -----

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-----  
4.9. What should be done to effectively disseminate your research results?

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4.10.If you have any additional comments on the research undertaking and dissemination at College of Education and Behavioral Studies, please list them down

**Thank You!**

## **Appendix 2: Interview Guiding Question**

**ADDIS ABABA UNIVERSITY  
SCHOOL OF GRADUATE STUDIES  
INSTITUTE OF EDUCATIONAL RESEARCH  
Semi-structured Interview Guiding Questions**

1. Please explain your education qualification, academic rank, and your role related to research?
2. How do you express the level of teachers' engagement in educational research?
3. To what extent instructors are self-motivated/interested in research activities?
4. How do you express the level of instructors' knowledge and skill to conduct & report educational research?
5. How do you express the level of instructors' effort and commitment in related to research activities?
6. How do you express the availability of financial (budget) & material resources (libraries, books, internet access, office spaces etc) for research activity?
7. In what ways the university encourages/supports, recognizes and research achievements by faculty? What are the rewarding mechanisms?
8. Do you think teaching and other services load has affected teachers' research productivity? If yes, how?
9. What should be done by the university and faculty to improve research productivity?
10. How do you express the extent of research dissemination?
11. What are the problems that you think limit research undertaking and dissemination?
12. What should be improved for effective research dissemination?

### Appendix 3: Cronbach's Alpha Reliability Statistics

#### OVERALL RELIABILITY

| Reliability Statistics |            |
|------------------------|------------|
| Cronbach's Alpha       | N of Items |
| .805                   | 26         |

#### SELF-KNOWLEDGE VARIABLES

| Reliability Statistics |            |
|------------------------|------------|
| Cronbach's Alpha       | N of Items |
| .969                   | 9          |

#### SOCIAL-KNOWLEDGE VARIABLES

| Reliability Statistics |            |
|------------------------|------------|
| Cronbach's Alpha       | N of Items |
| .538                   | 9          |

#### ENVIRONMENTAL VARIABLES

| Reliability Statistics |            |
|------------------------|------------|
| Cronbach's Alpha       | N of Items |
| .536                   | 8          |

## Appendix 4: Correlation Matrix

|                        |                        | Correlations       |                            |                    |                   |                     |                     |
|------------------------|------------------------|--------------------|----------------------------|--------------------|-------------------|---------------------|---------------------|
|                        |                        | Total<br>Published | Socio<br>Demographi<br>c V | Career<br>Variable | Self<br>Knowledge | Social<br>Knowledge | Environmen<br>tal V |
| Total Published        | Pearson<br>Correlation | 1                  | .396**                     | .610**             | .579**            | .372**              | .004                |
|                        | Sig. (2-tailed)        |                    | .002                       | .000               | .000              | .004                | .976                |
|                        | N                      | 59                 | 59                         | 59                 | 59                | 59                  | 59                  |
| Socio<br>Demographic V | Pearson<br>Correlation | .396**             | 1                          | .713**             | .360**            | .258*               | .112                |
|                        | Sig. (2-tailed)        | .002               |                            | .000               | .005              | .049                | .399                |
|                        | N                      | 59                 | 59                         | 59                 | 59                | 59                  | 59                  |
| Career Variable        | Pearson<br>Correlation | .610**             | .713**                     | 1                  | .608**            | .364**              | .116                |
|                        | Sig. (2-tailed)        | .000               | .000                       |                    | .000              | .005                | .380                |
|                        | N                      | 59                 | 59                         | 59                 | 59                | 59                  | 59                  |
| Self Knowledge         | Pearson<br>Correlation | .579**             | .360**                     | .608**             | 1                 | .396**              | .032                |
|                        | Sig. (2-tailed)        | .000               | .005                       | .000               |                   | .002                | .812                |
|                        | N                      | 59                 | 59                         | 59                 | 59                | 59                  | 59                  |
| Social Knowledge       | Pearson<br>Correlation | .372**             | .258*                      | .364**             | .396**            | 1                   | .340**              |
|                        | Sig. (2-tailed)        | .004               | .049                       | .005               | .002              |                     | .008                |
|                        | N                      | 59                 | 59                         | 59                 | 59                | 59                  | 59                  |
| Environmental V        | Pearson<br>Correlation | .004               | .112                       | .116               | .032              | .340**              | 1                   |
|                        | Sig. (2-tailed)        | .976               | .399                       | .380               | .812              | .008                |                     |
|                        | N                      | 59                 | 59                         | 59                 | 59                | 59                  | 59                  |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

## Appendix 5: Linear Regression

**Descriptive Statistics**

|                     | Mean  | Std. Deviation | N  |
|---------------------|-------|----------------|----|
| Total Publication   | 6.73  | 7.786          | 59 |
| Socio Demographic V | 5.73  | .848           | 59 |
| Career Variable     | 10.15 | 2.953          | 59 |
| Self Knowledge      | 31.14 | 5.776          | 59 |
| Social Knowledge    | 23.95 | 5.063          | 59 |
| Environmental V     | 20.92 | 3.752          | 59 |

**Model Summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |     |     |               |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
|       |                   |          |                   |                            | R Square Change   | F Change | df1 | df2 | Sig. F Change |
| 1     | .679 <sup>a</sup> | .461     | .410              | 5.980                      | .461              | 9.065    | 5   | 53  | .000          |

a. Predictors: (Constant), Environmental V, Self Knowledge, Socio Demographic V, Social Knowledge, Career Variable

**ANOVA<sup>a</sup>**

| Model |            | Sum of Squares | df | Mean Square | F     | Sig.              |
|-------|------------|----------------|----|-------------|-------|-------------------|
| 1     | Regression | 1620.611       | 5  | 324.122     | 9.065 | .000 <sup>b</sup> |
|       | Residual   | 1895.050       | 53 | 35.756      |       |                   |
|       | Total      | 3515.661       | 58 |             |       |                   |

a. Dependent Variable: Total Publication

b. Predictors: (Constant), Environmental V, Self Knowledge, Socio Demographic V, Social Knowledge, Career Variable

**Coefficients<sup>a</sup>**

| Model |                     | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|---------------------|-----------------------------|------------|---------------------------|--------|------|
|       |                     | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant)          | -15.758                     | 7.984      |                           | -1.974 | .054 |
|       | Socio Demographic V | -.277                       | 1.334      | -.030                     | -.208  | .836 |
|       | Career Variable     | 1.104                       | .452       | .419                      | 2.440  | .018 |
|       | Self Knowledge      | .376                        | .179       | .279                      | 2.093  | .041 |
|       | Social Knowledge    | .233                        | .182       | .152                      | 1.277  | .207 |
|       | Environmental V     | -.211                       | .225       | -.102                     | -.940  | .352 |

a. Dependent Variable: Total Publication

## **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: Lissan Gebrewold

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

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

Name: Berhanu Abera (PhD)

Signature: \_\_\_\_\_

Date: \_\_\_\_\_