



ISSN 2278 – 0211 (Online)

Factors Affecting the Quality of Undergraduate Research Work in Bahir Dar University, Ethiopia

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Abstract:

The main objectives of this study were to describe and explain factors affecting the quality of undergraduate research work in Bahir Dar University and challenges teachers face in research supervision of their students, taking faculty of education and behavioral science as target area with three teachers and five graduated individuals of 2005E.C. for samples from school psychology department. To achieve this objective, descriptive research design under qualitative approach was used with the aforementioned samples, and the required data was obtained through in-depth and semi-structure interviews as well as senior essays of the graduates reviewed. The analysis was done by triangulating results of these three data. The analysis revealed that academic (incompletion of research course, lack of advisors commitment, students' lack of analytical skills, language skills and goals in learning), psychological (students' lack of confidence as well as lack of motivation in research course and research topic), social and personal, (lack of relationship between students, teachers and colleagues and lack of time management skills and interest in research, lack of financial capacity of students, Lack of respondents' willingness to fill research instruments). Institutionally (Lack of open evaluation system for research, scarcity of reference materials, absence of facilitated research environment, pairing students on a single topic and the service delivery system of library) found to be factors affecting the quality of undergraduate students' research work. Students' inability to do research, meaningless academic work of students, lack of facilitative research environment, lack of incentives for teachers, Lack of open evaluation system for research and scarcity of reference materials were found to be challenges of teachers in research supervision. Hence, it concluded that academic, psychological, institutional, social and personal factors affecting quality of students' research and supervisors are facing multifaceted challenges, which arise from students work and institutional working system.

Keywords: Undergraduate research and factors affecting research quality

1. Statement of the Problem

Universities are the springs of skilled manpower that are required in each and every aspect of life. In today's world not only skill but also its quality is highly demanded in almost all organizational situations. To discharge this demand Universities have been relentlessly working toward the production of qualified graduates, confronting them to research work. In most Ethiopian Universities, conducting research work is a prerequisite to earn BA degree.

Undergraduate research is a valued curricular activity that has involved increasing numbers of students and faculty in recent years (Webber, Nelson, & BrckaLorenz, 2012). As one of the Ethiopian higher education institutions, Bahir Dar University is engaged in the same practices to develop the research skills and competences of both undergraduate and graduate students. But in the course of its implementation there are many challenges. Currently, the student enrolment of the university reached 39,748 students from BA to PhD admitted to its colleges, institutes, faculties, and schools and residing in its campuses, namely, Peda, Poly, Zenzelima, College of Business, Yibab, Felege Hiwot Hospital and Marine Academy.

When we look at the practice of student research at Bahir Dar University in terms of quality, and their achievement, one can see that there are a number of problems. Even the research publication rate of the academic staff is low. In an event that was organized on April 5, 2014, the University president suggested, "Just 119 of their 1500 academic staff published papers in last year. In terms of percentage, it is low, (www.bdu.edu.et/news-update/608-bahir-dar-university-honors-its-top-research-staffs), Retrieved on Wednesday, April 9, 2014.

Educational and Behavioral science faculty is the second oldest faculty, following the then Polytechnic Institute, of all other faculties, colleges, institutions and schools of the Bahir Dar University, which is located in the main campus called "Peda," which is the site of this study. The faculty assigned its students in pairs so that two students treat one research topic wherein Pairing students on one topic may affect the research quality because students may not come together to do the research due to social loafing behavior.

Prior to writing their senior essay students took research courses to become well equipped with knowledge and skills important to conducting research. However, the reality shows that only a few students are able to conduct quality research works that fulfill the criteria set forth to determine the quality of their work. The assigned advisor's commitment in providing facilities and expectation toward the quality of research work carried by his/her advisees are also debatable. However, research advisers' responsibility is to facilitate students' learning in the research enterprise by guiding them from the formulation of research questions through design and analysis stages and finally to the interpretation of the findings as well as their integration into the greater body of knowledge providing the context for the research (Ramirez, 2012).

In addition, research works carried out at the universities can be affected by different factors at all levels, specifically at undergraduate level. Those factors are evident in daily experiences of every individual. In 2005 E.C, an announcement "we help researchers" was posted around Peda campus of Bahir Dar University. The announcement can actually be equated to openly promoting academic dishonesty in the research undertaking of the university by novice researchers. even in postgraduate level, the researcher has observed that a postgraduate student of Education and Behavioral Science Faculty without any viable rationale duplicated a study published by Jimma University in educational journal in the year 2009 in 2013 as a thesis. This can be the best evidence for similar activities performed by undergraduate students in every Ethiopian university.

It has been an open secret that undergraduate students transfer their senior essay works to friends who will graduate in the years to come either by soft copy or hard copy. Besides, Bahir Dar University envisioned being one of the ten best research universities in Africa. The researcher believed that to achieve this interesting vision, early wake up on quality of research carried out by its members is consequential. However, little emphasis seems to have been given to such issues that the problems are continuing and factors leading students to such behavior are left untreated.

Existing research often focuses on the student experiences of postgraduate research (Todd, Bannister & Clegg, 2004). Compared to other pedagogic issues, little information exists about the trainees' research project (Brewer, Dewhurst & Doran, 2012). With this backdrop, the current study attempted to identify, describe and explain those factors affecting the quality of undergraduate research works. Hence based on the discussion made above the study addressed the following research questions:

1. What are factors that affect quality of undergraduate research work?
2. What are the challenges teachers are facing in advising their students?

1.1. Objectives of the Study

The objectives of this study were to identify and describe factors affecting quality of under graduate research work and challenges teachers face supervising students' research.

1.2. Population of the Study

The populations of this study were undergraduate students who carried out research in their final year and psychology teachers of faculty of education and behavioral science.

1.3. Sample and Sampling Techniques

The participants of the study were taken from Department of School Psychology. Particularly, the 2005 E.C graduating class students who were in close proximity to the researcher were selected purposively and their senior essays were reviewed. once more, by using purposive sampling, three teachers who have long years of experience in advising, and offering undergraduate level courses were selected among psychology department staff members to get data on those factors affecting research quality and the challenges advisors experienced in advising.

1.4. Data Gathering Instruments

To obtain the data for this study, the researcher used semi-structured interview for teachers, which consisted of seven items while in-depth interview for graduated students, which contain fourteen items. The researcher prepared these items and the respective advisor of this study evaluated their relevance. Senior essays were reviewed based on criteria developed by the researcher from characteristics and criteria of good research developed by Fox(1958). The Criteria contained sixteen items to determine the quality of the papers.

1.5. Data Analysis Techniques

To analyze the data, the first thing the researcher did was transcription of audio-taped interviews by organizing into notes. He carefully went through the transcriptions to get sense out of it and put together the transcriptions under the relevant source of the data. Next, the analysis was done by triangulating the results of interview from two groups and documents review under the relevant themes. In short, qualitative data analysis, specifically narrative description and theme analysis, was used. Finally, categories from analysis were formed for discussion.

2. Discussion

Quality of students research work is affected by different interwoven factors in higher educational institutions. These are academic, institutional, psychological, social and personal as well as economic, which overlap with one other. Academic factors that cause quality problems in research are students' lack of analytic skills, careless supervision of student research, poor student language skill,

poor teaching learning of research course, and students' lack of goals in learning. Ball and Pleco (2006) outlined the importance of completion of research course in that the completion of an introductory course in research methods is a critical step for undergraduate students who will conduct their own original research in future. Accordingly, incompleteness of research course affected the quality of students' research work by limiting their potential to apply proper statistical methods and performing quality computations. However, students should have expected knowledge of statistics, which they can acquire from research course to do quality research because the basic objectives of such courses are to capacitate those pupils for that action. In light of this, Gladys, Nicholas and Crispin (2012) purported that, a fundamental objective of statistics in education is to prepare students to be high-quality users, patrons or communicators of statistical knowledge, depending on the extents to which the students' future careers relate to statistics. Moreover, the essential objective of research course in education should not be limited to the degree of students' future career and statistics relation because there is no free trial environment which does not require the individuals' problem-solving capability. The main quality problems of research works carried by students were lack of appropriate analysis methods in reviewed documents, which could be linked with design problems. In contrast, quality of research is contingent on its methodology and consistent with that of Kasi's (2009), quality of any research depends on how well both design and execution phases of the project are accomplished. There is a positive relationship between the research etiquette and overall quality and acceptance of the resulting research study (Kasi, 2009). For the reason that the design of certain study determines all methods that will be employed in the sequence of research process and finally assure the relevance of results obtained through such investigation.

Poor supervision also affected the quality of research resulting in plagiarized study of trainee that caused by negligence of advisors except few ones and students can lose the chance to learn by doing. In evidence for this, scanty supervision found to be one of the major factors that negatively affect students' advancement in research (Kangaia and Mapolisa 2012). Nevertheless, students' lack of goal in learning can force supervisors to act irresponsibly during research supervision since supervision is providing support for the learners and he/she also should be eager to scramble on the task plateau.

Lack of critical thinking in educational researches undertaken in Ethiopian tertiary education institutions is not students' problems but also teachers' problems and impinging quality the research that observed as failure to use appropriate research methods in researches. Accordingly, Amare (2000) singled out inappropriate use of statistics and uncritical adoptions of the opinions in the review of literature section and lack of educational research knowledge.

The other dominant factors were institutional factors that affect quality of undergraduate research as well as challenges teachers in research supervision. Lack of up-to-date books and journals, access to photocopy and printing services within the campus, quality and sufficient internet access as well as the service delivery system of library challenged students to review recent and relevant literature in their study and to get directions from their advisors. In addition to this lack of sufficient compensation for their load and encouraging research environment, open evaluation system on research defense were challenges facing teachers during supervision and results in lack of their commitment. Yared (2012), Kangai and Mapolisa (2012), Melese (2010) and Kiflom (2009) stated that shortage of relevant and up-to-date books, journals, and internet service is one of the major factors exacerbating quality problems, and they further claimed that lack of attractive compensation and other benefits are causing lack of instructor's commitment in teaching-learning process.

Lack of open evaluation system also affects the quality of research by hindering advisors' commitment in supervision and students' confidence on oral defense. Moreover, pairing students on certain topic also affects students' research quality by creating divergence among the group members that may lead to psychological problems such as lack of motivation and becoming hopeless, since students did not attempt more to do research.

Lack of motivation in the given topic of research as well as in research course affected students' research quality by hindering their effort to perform quality and scientific work. In view of that, Barab, Squire and Dueber (2000) found that most statistics courses in the social sciences are facing a number of problems encompassing negative attitudes towards statistics, low motivation and statistical knowledge that is inert and results in low transferability of the knowledge and skills.

From the social aspect, one can see the difficulties in students' relationship with their colleagues and teachers, which brought disagreement among colleagues from beginning to end, and lack of appropriate support from teachers. Teachers-student relationship in research supervision were characterized as unfriendly relationship, lack of proper support from teachers and revenge of teachers on students which can be seen as personal problems related to teachers. Thus, Zewdu (2012) stated as advisor-advisee relationships were characterized by unfriendliness and in consequence affect both advisees' commitments and the quality of their researches. Further personal factors to quality of research are persistent in undergraduate student research such as interest in the research topic and poor stress management of students. Consequently, Bocar (2013) reported that students suffer from personal problems like time and stress management that disturbs their interests. Moreover, respondents' unwillingness to fill research instruments resulted in filling instruments by researcher students themselves. Bocar (2013) argued that collaboration of respondents outside the academic institution is very crucial problem for student researchers. Moreover, teachers were too busy in their workload and unable to contribute to more to students' research and what makes those teachers busy is still unknown even if they project to excessive teaching load.

Economic related problems as a challenging factor for students were lack of financial capacity during their research; even students were in worry about the means for printing and duplicating their questionnaires. According to Kangai and Mapolisa (2012), financial problems were one of major factors that affect the successfulness of a certain study. Research requires time, skill, and budget which are inseparable each other. Even though, the Ethiopian economic situation does not allow scholars to speak for research funds loudly, there is a need for rethinking on research issues of the university.

The other serious problem that affects the quality of undergraduate students' research, at least indirectly, is that of commoditization of research, wherein other people do the research and sell it to the graduate students through payment, which can be taken as national level problem. These individuals are consciously or unconsciously, gulping down the country's tomorrow fate by killing the skills of young generation and the situation needs nationwide attention.

3. Conclusion

Undergraduate Research quality in Bahir Dar University has affected by manifold factors viz., academic, social, and personal, psychological, institutional, economic those are directly or indirectly, interrelated and supervisors are facing multifaceted challenges, which arise from students work and institutional working system.

4. Recommendations

- Teachers should provide seminars and workshops for students on research methodology, literature review, and ethics of research, which could help them in goal setting, and build strong relationship with students.
- Faculties should build facilitative research environment for teachers and students with sufficient equipment. In addition to this, recognition for better research papers and rewarding student may motivate students to conduct research. Furthermore, faculties should provide incentives for teachers' research supervision.
- Departments should offer training on time management and goal setting in learning for students.
- The university should establish research quality guidelines, which can enable faculties to design their own code of practice.
- The University needs to develop online student research database, which links it to other higher education institutions of the country. Hence, higher education quality relevance agency can manage and work more on research quality of the country.
- It is better to avoid pairing students on one topic because students came from different cultural groups with different learning styles and ability level. Hence, treating these pupil through group in the research process can a difficult task in research process and the faculty shall abandon this practice.

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