

Exploring the Quality of Undergraduate Research in Ethiopian Public Universities: Three Universities in Focus

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Abstract

The prime objective of this paper was to explore the quality of undergraduate research in selected Ethiopian public universities. These universities were Addis Ababa, Madawalabu and Ambo. To undertake the study, 7 batches of English Language and Literature Departments of the three public universities were purposely selected. These undergraduate batches were 2007 and 2009 (of Addis Ababa University), 2008, 2011, 2012 (of Madawalabu University), and 2013, 2014 (of Ambo University). A total number of 120 graduates (30 students of Addis Ababa University), (55 students of Madawalabu University), and 35 students (of Ambo University) were participants of the study. In addition, 15 teaching staffs of the three universities 4 teachers (of Addis Ababa University), 6 teachers (of Madawalabu University), and 5 teachers (of Ambo University) were the participants of the study. The necessary data were gathered through reviews, interviews, observation and qualitative content analysis. As to the findings, undergraduate research is indispensable to develop basic research experience that would help students to succeed in their future professional as well as academic career. The study also indicated that the quality of undergraduate research in the selected Ethiopian public universities, sample departments, was at risk. The study revealed that teaching and research at undergraduate program was not integrated to bring about students' whole round developments; both in academics and research. The findings revealed that the undergraduate research neither focused to the scientific knowledge transfer nor to developing and/or criticizing existing theories and /or models. The undergraduate research project was principally intended to satisfy students' graduation profile. According to this study, the daunting quality of undergraduate research was mainly attributed to academic institutions, teachers, students and undergraduate curriculum. As to the study, the expected research faculties/departments failed to give due attention to promote quality undergraduate research. There was poor research leadership and coordination to enforce student comes out with sound undergraduate research paper. There was also poor provision of resources to help students and supervisors promote quality undergraduate research. On the other hand, most research advisors in the undergraduate program seemed to lack professional commitment to help students develop basic knowledge to embark on quality undergraduate research. The study also identified that undergraduate students had considerable contribution for the scanty quality of undergraduate research paper. The students viewed undergraduate research separately from academic success. Furthermore, the study has given insight that the undergraduate curriculum was not engaging students to do continuous research activities along their course works during their university life. Therefore, universities, research faculties, undergraduate research supervisors, students and curriculum designers are expected to play their separate as well as integrated roles to promote quality undergraduate research.

Keywords: Research, undergraduate, quality of research, Public University, Ethiopia

Introduction

Around the world, knowledge is recognized as the critical factor for global competitiveness in the 21st century. According to this view, successful societies are those most able to take advantage of knowledge for competitive advantage and performance, and attract international talent, new business and investment. This requirement for a knowledge-based society is central to national government strategies for sustainable economic and social development, especially as a response to the global economic crisis. Because university research is the primary ground for the production of new knowledge, higher education is an important focal point for national governments policy-making. It plays a critical role in the research-innovation eco-system, providing human capital through education and training, attracting high-skilled talent and investment, actively engaging with the local and regional community through knowledge and technology transfer, and underpinning the global competitiveness of nations and regions. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2009), universities are at the forefront of *'World's drive to create a knowledge-based society and economy and improve its competitiveness'*. To meet these challenges, universities are undergoing profound change. In recent years, there has been a steady growth in methods to evaluate and assess the activity and outcomes of

higher education, with particular emphasis on the assessment of university-based research. Cross-national or worldwide comparisons of research performance and quality are an inevitable outcome of globalization (USCFIR, 2004).

There is an increasing focus in colleges and universities on the quality of undergraduate education and its role in preparing students for the workplace and graduate study. Learning through direct experience with research projects is one recognized means for undergraduate students to develop the skills necessary to succeed after graduation. In fact, the seminal report of the Boyer Commission on Educating Undergraduates in the Research University (Boyer, 2008) acknowledges this through its recommendation to "make research-based learning the standard" for undergraduate education. The commission advocates for students to participate in and learn through research and primary source materials beginning in their first year of college. These research experiences can help students to develop "the abilities to identify, analyze, and resolve problems [that] will prove invaluable in professional life and in citizenship" (Boyer, 1998). However, international experience tells us that undergraduate university curriculum in some countries does not have much room to treat research activities as compulsory area. Research is not practiced from the first year of the students' university or college life. Few research courses with very limited time are

probably given in undergraduate education program. Higher education institutes need to support undergraduate students to get equipped with the necessary research knowledge and skills (Walkington, 2015). Similarly, in Ethiopian public universities, graduates take on undergraduate research. Based on the nature of the field of study, university graduates are expected to do research works or mini projects. The whirling subject is not about undergraduate research undertakings. It is how to foster a quality undergraduate research that is momentous to solve societal problems.

This study, therefore, was to explore the quality of undergraduate research veracities from the perspective of sample Ethiopian public universities.

Statement of the problem

Universities are expected to devote to both teaching and research (Boyer, 2012). Jenkins et al (2003:6) also explained that involving students in inquiry, in research, is a way of improving their learning. It is further argued that what motivates large number of academics is engaging in the excitement of research. Bringing research and teaching activities together is a way of enhancing the motivation of both academics and students. Wudu, M (2012), cognizant to the above fact, pointed out that the Education and Training Policy of Ethiopia encourages relationship between education (teaching) and

research in higher institutions. Similarly, the Higher Education Proclamation of Ethiopia, FDR, 2009, addresses *“every institution shall undertake researches that equip students with basic knowledge and skills that enable them to undertake further and relevant studies and research”*. Although there is no sufficient literature work on undergraduate research quality in the context of Ethiopia, few seminal works revealed that there are problems related to undergraduate research in Ethiopian public universities. For instance, Wudu, M (2012) indicated that undergraduate students in Ethiopia lack adequate research background to conduct problem solving research. Besides, Abdinasir (2000) conducted a survey study on major problems of senior undergraduate students of Addis Ababa University in conducting research and found out that students have no adequate theoretical research knowledge and practical skills. Nuru (2005) also conducted research on undergraduate student research papers in Ethiopian context and found out that undergraduate research requires further work. These different studies outlined that undergraduate students are not equipped with the necessary research knowledge and skills. Though the existing literature identified that undergraduate research works in Ethiopian public universities are not to the standard, the findings did not adequately address the scenarios related to institution, students, teachers,

research advisors, research leadership, resources and the curriculum to foster quality undergraduate research. Therefore, this study was aimed at filling these gaps through exploring the quality of undergraduate research in selected Ethiopian public universities. Hence the specific objectives of the study were:

1. To identify the link between teaching and research in the undergraduate program;
2. To assess stakeholders commitment to promote quality undergraduate research;
3. To examine the depth of undergraduate curriculum to foster quality undergraduate research;
4. To identify the challenges to undertake quality undergraduate research.

Materials and Methods

Study area

This study was carried out in three Ethiopian public Universities. These Universities were Addis Ababa University, Madawalabu University and Ambo University. The study only focused to English Language and Literature Departments of the selected public Universities.

Research methodology

The study was exploratory in nature. As a result, qualitative research methodology was employed. Case studies, based on vicarious experiences, were used to substantiate the reality of undergraduate research quality in Ethiopian public universities.

Sample and sampling technique

This study was initiated mainly by the researcher's personal experience. As a result, the study employed both purposive and availability sampling techniques. To investigate the quality of undergraduate research, 7 graduate batches of English Language and Literature Departments of the three Ethiopian public universities were purposely selected. These batches were graduates of 2007, 2009 (of Addis Ababa University), 2008, 2011, 2012 (of Madawalabu University), and 2013, 2014 (of Ambo University). The participants were selected based on the essence of purposive and availability sampling techniques. The point of saturation determined the number of participants.

Sample size

The sample size in qualitative study is basically determined by theoretical saturation. Theoretical saturation occurs when new data from new cases do not contribute to the development of emerging theory (Hancock *et al.*, 2009:22). In the context of this study the aim was to obtain an in-depth understanding of the phenomenon under study and not to generalize the findings of this study (Creswell, 2003; Neuman, 1997). As a result, a total number of 120 graduates of the three universities (30 students of Addis Ababa University), (55 students of Madawalabu University), and 35 students (of Ambo University) were the participants to collect the necessary data. Specifically, the

number of student participants was: 20 students of 2007 batch and 10 students of 2009 batch (Addis Ababa University); 15 students of 2008 batch, 20 students of 2011 batch and 20 students of 2012 batch (Mada Walabu University) and 15 students of 2013 batch and 20 students of 2014 batch (Ambo University). The number of student participants was determined based theoretical saturation. In addition, 15 teaching staffs of the three universities 4 teachers (of Addis Ababa University), 6 teachers (of Madawalabu University), and 5 teachers (of Ambo University) were the participants to collect the necessary data. The teaching staffs were purposely selected based on their undergraduate research supervision experience. The number of participants was also limited base on the point of saturation.

Data gathering tool

The necessary data was gathered through semi-structured interviews, qualitative content analysis, observations and undergraduate research commentary of the sample public universities.

Data analysis

The data collected through different instruments were organized and interpreted using descriptive statistics such as percentages and qualitatively using discussions. The different qualitative results were triangulated to supplement each other.

Result and interpretation

Research-teaching link

The qualitative content analysis of the undergraduate curriculum of English Language and Literature in the selected public universities showed that the contents of the research/senior essay course seemed to assist undergraduate students to undertake research. It is assumed to be a stepping stone for students to identify existing problems and find solution through scientific study. However, the continuous observation and interview results showed that most undergraduate students in public universities failed to truly recognize research and its benefits. The continuous undergraduate research observation showed that undergraduate research papers in public universities, with in the research duration, were almost carbon copies meant for graduation. As science and technology advances, the level and quality of undergraduate research is supposed to increase. In contrast, technologies are erroneously being used to hunt for readymade research papers across universities and research institutions. Besides, the observation well as interview results indicated that undergraduate research papers in public universities seemed to be a commodity to make money regardless of the research ethics and brass tacks. According to USC FIR (2004:8), research should follow 'good practice' with respect to avoiding

plagiarism, accurately documenting results, securely storing primary data, acknowledging the role of collaborators and other participants, and ensuring professional behaviour between supervisor and researchers. Empirical evidence showed that research assessment processes should ensure that good ethical practice which is embedded within the research culture of the knowledge cluster, and the university. Research should always be conducted in a way which promotes and promulgates good ethical practice, emphasizes integrity and sustains a good research culture. The content analysis, interviews as well as observation results revealed research issue in the undergraduate program was an area that seemed separate from the teaching- learning processes. In all the target public universities, during the research period, the emphasis in the undergraduate program was more on the teaching subject matters which was not linked to continuous research practices. With this regard, Wudu, M (2012) in his study "Research-Teaching Link in Higher institutions of Ethiopia: the case of Jimma University" identified that *"higher learning instructors in Ethiopia are not involved in disciplinary research; they did not allocate time for research, the department and college environment is not facilitative to conduct research, except incorporating small scale assignments/review literature/ in their courses, instructor did not use different methods to link research with teaching such as involving students in their research, teaching research skills in each*

course." The current study also pointed out those undergraduate students in the respective universities and departments had no exposure to different practical research experiences during their university life. According to Boyer commission on undergraduate research, no single aspect of a good research university is more important than having a high quality faculty devoted to both teaching and research (Boyer, 2012). This implies research in the undergraduate program should be linked to the teaching-learning processes so that undergraduate students can develop the necessary research knowledge, skills and practical experiences in their discipline.

Research oriented undergraduate course

The study pointed out that one research course/seminar course was a required course for all graduates in the department of English Language and Literature. As to this study, the research course was an integrative experience that required students to acquire the necessary research skills and knowledge that would prepare them to write the final undergraduate research paper. The research course was planned to give basic research knowledge and skills; to identify research problems, write research proposals, review literature, apply basic theory, test hypotheses/write research questions and write multiple drafts. As to the qualitative content analysis, the intention of research/

seminar course was to help undergraduates demonstrate how to write a research paper. However, the qualitative content analysis, observation and interview results showed that the nature of the seminar course was a counterfeit. Research course was given once in students' university life. The research course had narrow coverage. It was a 3 credit hours/5ECTS course where teachers as well as students had limited contact hours per week. This highly defied students to get adequate understanding on research theories and practices. The existing literature supports that, depth in research can be achieved, in part, with planning prerequisites research courses. Unfortunately, the English Language and Literature curriculum had no prerequisite research courses. Besides, depth is also achieved by requiring writing assignments in most courses. Well crafted writing assignments, especially those that require students to revise and resubmit graded drafts, can help to develop critical thinking and organizational skills that prepare students for research/seminar courses. On the contrary, the interview results from the undergraduate students indicated that students had very limited exposure to subjects that would help them develop such practical research knowledge and skills. According to the content analysis results, there were no intermediate research theory courses that prepared students for

future research undertakings. The observation result also indicated that the seminar course delivery was not to the standard. Students were given more of the theoretical concepts about research, not research. The evolution approach was more of summative which focused on pen and pensile examination. The study also revealed, in the evaluation scheme, the research course failed to give students practical experience to write mini-research proposal that would lead to full research paper write up. The observation and interview results specifically identified that the way students were evaluated and the quality of evaluation of the research/seminar paper was not adequate and comprehensive. In general, the study indicated that the nature of undergraduate research course, methods of teaching and research course evaluating mechanisms are the areas that demand due attention.

Undergraduate research supervision

In Ethiopian public universities, advisors are assigned to supervise undergraduate research /senor essay papers or projects. The advisors are expected to help the students from problem identification all through the research works. However, the interview with both student and teacher participants revealed that advisors and advisees seemed to have gaps in their research knowledge, skills and basic research philosophy.

Out of the total student participants, 54 students (45%) explained that some research advisors had less research knowledge and experience. The student participants pointed out that there were situations when graduate assistants with first degree, without having comprehensive research knowledge and tested research experience, used to advise undergraduate research. All teacher participants also emphasized that undergraduate students had no academic readiness to carry on quality research works. The interview results with these language instructors revealed that most students were not in position to do original research works. The above realities showed that there was less cooperation between research advisors and advisees to foster quality undergraduate research. In line with this, Siegfried (2001:22) argued that the importance of research and writing should get considerable attention in the academics. Hansen (2001:11) has also long argued that teachers need to help students develop a set of proficiencies that encourage doing quality undergraduate research. Boyer (2008) further claims high quality faculty tends to attract high-quality students. According to Boyer (2008), if research is to be successful, the students as well as research advisers should be intellectually gifted and prepared to devote considerable energy and time to produce quality research that targets to solving existing problems. The students should have opportunities to communicate their

work to the wider audiences. To promote good research works at undergraduate level, teaching staffs should be equipped with the necessary research knowledge and skills. Besides, teachers need to integrate teaching and research works to broaden students' research knowledge and skills. With this regard, Berhanu (2008) also holds the view that good teaching at both undergraduate and graduate levels must be enlivened by the lecturer's own research and scholarly pursuits. Commenting on this, the same author observes good teaching must be accompanied by the lecturer's constantly renewed thinking about the subject and its methodology. This would encourage undergraduate students to be competent in undertaking quality undergraduate research endeavors. Universities also need to have strong structure to monitor and evaluate undergraduate research undertakings that determine students' future professional and career.

Undergraduate Research Case Studies

CASE I

In the years 2004/5-2010/11, the researcher had the opportunities to observe and analyze undergraduate research scenarios at Addis Ababa University, School of Language Studies; Department of English Language Education. At the end of the graduating class, graduates were expected to write research/ senior

essay paper individually. It was a pre-set criterion to full fill graduation profile.

Though research is fundamental for innovative ideas, concepts, theories models and/or transfer scientific knowledge, the nature of research undertakings and practices in those years were a mystery to almost all of the graduating batches. For instance, in the duration of under graduate courses, three years, English Language Education Department students were given only one research course: Action Research. The course was a two credit hours. The content was not broad enough to address the different areas of research components. It was more theoretical where it did not invite students to develop even a mini research proposal. The course was mainly to give a sort of birds eye view on how to solve immediate problems during class instructions. Another big challenge was the students were not given an opportunity to make out research temperament in different fields of study. The research course was confined only to research topics, though not worth mentioning, in social sciences. Qualitative research was given due emphasis. Students in the Department had less idea about quantitative research design.

Students with such shallow research knowledge and experience, however, were expected to undertake undergraduate research/senior essay

paper as fundamental criterion to qualify as a graduate. The researcher's years long experience in the university, undergraduate and graduate programs, also pointed out that most of the undergraduate students had no know how about research and its significance, basic research ethics, topic selection, how to develop research proposal, how to set SMART research objectives, how to develop literature review, the style of writing, what methodology to employ, how to develop data gathering instruments, how to collect data, how to organize row data, how to analyze data, how to document reference materials and how to disseminate the findings. These used to lead the students to exercise academic dishonesty. The majority of the student respondents, 80 students (66.6%) also argued that most undergraduate students were smart enough to facsimile research works carried out in other Ethiopian public universities because of the existing knowledge and skill gaps. Besides, the observation shows that most of the graduating class students had to check off the rack, undergraduate research papers in other universities before submitting their research topics. This vividly indicated research writing in the undergraduate programs appeared to be counterfeit.

Personal observation

The researcher was undergraduate student at Addis Ababa University, Department of English Language

Education. At the end of the graduating class, he had to write undergraduate research paper. At the beginning he selected research title based on the announcement by the HOD. The approved title was "An Investigation of the Role of Group Discussions in a Large class Size". There was an advisor assigned to supervise the research works. The advisor, yet, had nothing to say whether it was really a researchable topic. In addition, there was no follow up while the research activities were on progress. The advisor did not give any room to write the research proposal. The reflection of the advisor was to directly start the research work without a research sketch or proposal presented.

The then student, now researcher, just began the research work without having clear research sketch. By then, the thinking of this researcher was as if research proposal was not significant to undertake a research work. The researcher can now assure that it was not because the advisor had no knowledge about research procedure. The advisor was so experienced and competent; but what he lacked was professional commitment to handle the supervisory role. The advisor also seemed lucid that the anticipated undergraduate research works were only to satisfy the graduate profile. The advisor was certain that the undergraduate researches were duplicates. The faculty also used to assign advisors without allocating appropriate professional fee. It is

possible to deduce that unscientific research procedure and ill research leadership could affect one's research competency and future success in research arena. With this regards, Boyer (2012, 2008) and UNESCO (2009) identified that all high quality research universities almost share the characteristics of: high quality faculty committed to research and teaching, high quality graduate students who want to learn to perform research or function with advanced expertise, an intellectual climate that encourages scholarship, facilities in which teaching and research can be performed effectively, research funding, research infrastructure, and high quality research leadership.

Undergraduate research in the eyes of supervisors and students

In addition to the above direct researcher's observation and lived experience, data gathered from 30 purposely selected graduates of English Language Education department, Addis Ababa University, 20 students of 2007 graduates, and 10 students of 2009 graduates, 76% of the total participants, revealed that undergraduate research was vital to foster good understanding about research undertakings in their discipline. The participants supported that undergraduate research helped them to be equipped with the necessary research knowledge and skills. However, the participants seriously commented undergraduate research in their department was a

replica. They asserted that there were no basic supports to carry out undergraduate research. As to these participants, inadequate research courses, poor undergraduate research culture, less committed research advisors, poor undergraduate research structure, broad student's course work, and poor research fund could hamper the quality of undergraduate research. The supervisors also shared some of the students' concern. However, the teacher participants argued that most students lacked commitments and devotion to write quality research paper. The participants added that most undergraduate students had no the necessary competency and ethics to carry on scientific research paper. This implies that the issue of promoting quality undergraduate research was not only about students' engagement in quality research work but also about integral works among staff members and other stakeholders. In this specific case study, it was flagrant to make out that the participants failed to reveal their responsibility to foster quality undergraduate research. Both teacher and student participants focused solely on the external locus of control that mired to embark on quality research. But none of those participants forwarded curative actions to realize the internal locus of control. The participants externalized the contributing factors for less quality undergraduate research. In line with this, Walkington and Hill

(2015) argued that complementary research knowledge and skills, strong social glue between members in the team/department and an atmosphere of mutual curiosity and interest are also critical, both in science and social sciences. It is believed that high-quality research understanding and expertise, lively group interactions, collaboration among professionals, essential research facilities and research leadership in a university have great contribution to produce problem solving and realistic research.

Resource to undertake undergraduate research

Research actions whether quality ones or not charge resources. Students are expected to endow their money, time and energy to carry on undergraduate research activities. The study revealed that most of the students (about 89%) in the department of English Language, target of this research, joined the university out of Addis Ababa. The student participants explained that there were students who had no financial as well as material supports. Those students were anguishing a lot to get money to write and print out the undergraduate research/ senior essay paper. The participants' reflection also indicated that research fund should be in place to conduct undergraduate research. Out of the total number of student participants, all of them (100%) were complaining about transportation and other expenses to do their undergraduate research properly.

Seventeen (56.6%) of the participants explained that most students in the undergraduate program inclined to fabricate false data to do their research works because of lack of ample time and financial support. Walkington and Hill (2013a, b) argued it is vital that a university has facilities that are consistent with the types of research and teaching to be performed. Effective education of graduate students requires libraries (increasingly digital these days), seminar rooms, classrooms and teaching laboratories of reasonably high quality. Walkington and Hill (2013a, b) asserted that in young universities often overlooked is the importance of university infrastructure to support research. This implies that universities should have the necessary research facilities that encourage research undertakings both at graduate and undergraduate levels. Research work by its nature requires fund allocation. In the environment where there are no necessary inputs thinking about quality research seems unthinkable. This shows that universities and other stakeholders should work together to abridge all the gaps that obstruct quality undergraduate research.

Undergraduate research presentation

According to this case study, all undergraduate students had to present their final research paper publically. The observation results indicated that the final undergraduate research defense sessions were still a

sort of tragic-comedy. It was tragic because it was a session to formally recognize most undergraduate research papers that had been on the false truck; did not fit to the basic research science and ethical guideline. It was comic because, though most undergraduate researches were on the wrong truck and did not fit to the research science and ethics, the defense sessions were the glorious time and stage where undergraduate students, after more than 16 years ups and downs of school life had to ensure their graduation. The observation results also showed that even those fabricated senior essay papers were defended as if they were innovative. In the case of this particular case study, external examinee was assigned to evaluate each student's research paper. One of the student participants told his memory that the undergraduate defense sessions at his department seemed informal group discussions where one utters his /her feelings. The participant said "*Most of the students dressed smartly for the defense sessions. It seemed that it was up to dressing smartly to qualify for the graduation.*" Another student participant also explained that undergraduate research advisors and external examinees used to give grades only to save students from graduation failure. Five participants (25%) of the 2007 batches of Addis Ababa University explained that what was pity in writing undergraduate research paper at their University was not only the wrong truck and gaps to undertake quality undergraduate research but also the relationship

between some research advisors and examiners. The observation result also showed that some students were able to score low grade, this is still true in post graduate research, because of rough communication between the advisers and external examiners. The participants added the defense sessions were sometimes where to observe scholars with revenge mentality. It would be between advisors and examinees or between advisor/examiner and the student. Two teaching staffs/advisors (50%) of Addis Ababa University, respective department, also seriously explained that they were not happy about the undergraduate research culture. The teacher participants emphasized that the institution as well as students did not give attention to the quality of undergraduate research. It is vital to deduce that this small scale qualitative data showed inadequate research course delivery, less integration between research and teaching, hazy understanding on the significance of undergraduate research, less commitment from students and research advisors, poor research leadership, gaps in research knowledge and skills, poor research ethics, poor research infrastructure and financial support decidedly affected the effort to boost quality undergraduate research. Besides, poor undergraduate research culture and dissemination strategies as well as lack of undergraduate research competition were among factors

crippled quality undergraduate research undertakings. This urges for collaborative works among all stakeholders to promote quality undergraduate research that paves a way for students' future success in academia and profession.

CASE II

Madawalabu University is one of the public universities in Ethiopia. The researcher had teaching and research experience at Madawalabu University. To organize this case study, the researcher had focused to English Language and Literature Department where he used to teach for more than five years.

Undergraduate research - supervisors and students perspectives

Out of the total number of teacher participants, 70%, agreed on the importance of undergraduate research. They believed that undergraduate research encourages students to develop research knowledge and skills. However, the participants emphasized that undergraduate research at in their required urgent solution. As to these participants, teaching and research works were not properly interlinked. The participants explained problems related to undergraduate research such as students did not pay attention to undergraduate research, undergraduate curriculum overlooked the importance of undergraduate

research, undergraduate research was not intended to solve existing problems, there was no undergraduate research fund, there was insufficient library resources, there was no effective research leadership, poor research ethics and culture, and poor competition among students. On the other hand, 30% of the teacher respondents argued that poor quality of undergraduate research was mainly attributed to the inexperienced research supervisors, poor university research leadership and undergraduate research curriculum. The respondents put in plain words that the department staff members who supposed to direct research works had no sufficient research experience. Next, the university did not have any follow up and sound support to foster quality undergraduate research. In addition, these respondents critically commented that the research course was not adequate to help students write quality paper. In general, the study revealed that undertaking undergraduate research /senior essay paper at Madawalabu University was almost akin to the realities at Addis Ababa University. However, the observation results indentified that the challenges to undertake quality undergraduate research in this university was many fold compared to the university in case one.

In addition to the observation tool, 50% of the teacher participants in English Language and Literature Department at Madawalabu University reported that the

university is facing a lot of challenges with regard to undergraduate research. They explained that in Addis Ababa University one could find digital library, up to date research technology, and experienced professors with international research experience. They also argued that, compare ing to the instructors in their university, *“a few days research supervision by those senior professors at Addis Ababa University helps a lot to develop the necessary research knowledge and skills for future professional development”*. One of the teacher participants added that there was no model research archives in his institute to help undergraduate students write their research/ senior essay properly. All (100%) the teacher and student participants reported that there was no internet technology in Madawalabu University to support research works. According to them, the lack of internet technology has affected highly the students as well as teachers academic and research performance. One of the participants said, *“The University is in pre-internet era.”* Moreover, students were not happy about the inexperienced young lecturers who are assigned to supervise the undergraduate research. The student participants argued that undergraduate research advisors at the university had less research experience and commitment. These participants also pointed out that graduate assistant who did not have sufficient academic qualification had been assigned to supervise undergraduate research activities. According to the participant, there

was no significant difference between the graduate assistants who were supposed to advise undergraduate research paper and the undergraduate students at the final year. The above realities imply that the University should pay attention to research infrastructure and support to encourage quality undergraduate research. Besides, there should be strong research leadership to create good research culture in the infant university.

The significance of undergraduate research

The study also identified that students had no clear understanding about the importance of undergraduate research. With this regard, 85% of the students explained that undergraduate research/senior essay paper was not as such helpful. They revealed that they had no sufficient research knowledge and skills to carry on quality undergraduate research. Students had no enough research practices on how to write research paper. In addition, the participants explained that undergraduate research in the university was all about copy paste. The participants also pointed out that insufficient research courses, poor practical research exercises, advisors less commitment, insufficient library resources, limited research time, poor research leadership, unavailable digital archives and poor financial support highly affected the quality of undergraduate research. From the students concern, it was possible to

deduce that the quality of undergraduate research at this university was at risk. This implies poor undergraduate research support and leadership affected the acceptance of research by the student majority. Undergraduate students at this university also did not have clear understanding on the importance and objectives of undergraduate research. This highly demands collaboration and commitment to change the blur image of undergraduate research in the faculty.

Major challenges to foster quality undergraduate research

The study showed that the link between teaching and research at undergraduate level was very loose. Moreover, the study indicated that there were huge gaps with regards to qualified senior staffs, proper resource allocation, faculty research leadership, research culture, internet technology, research ethics, course curriculum, and team spirit to establish strong undergraduate research culture at the time of study. Boyer (2012) argued that no single aspect of a good research university is more important than having a high quality faculty devoted to both teaching and research. Walkington and Hill (2013a, b) also argued that research is expensive and requires adequate funding. This would have magnificent contribution in undertaking quality, problem solving and plagiarism free research. They also believed young

universities need to be given special attention by the government and stakeholders to promote good research practices. It requires good leadership that is capable of managing a complex organization in which the faculty provides much of the intellectual leadership and by implication as a consequence, power is spread diffusely through the institution. This shows that quality research is a collaborative work that needs commitment of the stakeholders. Undergraduate research should be an integral part of teaching-learning processes. It is also essential to aware that undergraduate research is an area that needs investment; both in qualified human power and material as well as financial resources.

CASE III

The last particular target of this research was English Language and Literature Department, Ambo University. The researcher had practical teaching and research experiences in the department of English Language and Literature as of 2013.

To undertake this case study, the researcher had focused to only English Language and Literature Department where he has been teaching for more than four years. Undergraduate students, graduated batches of 2012/13 and 2013/14, and teaching staffs in the department were the participants of the case study. The participants were inquired to react on the significance of undergraduate research, the link

between teaching and research at undergraduate program, the nature of undergraduate research course, advisors support and commitment, faculty research leadership, and limiting factors to write quality undergraduate research paper.

Significance of undergraduate research

The majority (65%) of student participants believed that undergraduate research is very crucial to prepare students for further professional development. They emphasized that undergraduate research should be practical whereby learning should be through doing. On the other hand, 35% of the student participants vacillated on the importance of undergraduate research. Students had no alternative choice than to write an undergraduate research/senior essay paper without having the necessary research support, knowledge and skills.

The participants criticized that students had no financial support to write research paper. The observation result also revealed that undergraduate research in practice was in poor condition that requires remedial measures. As to the participants, 35%, the research at this level was phony research meant to fill students' graduation profile. The continuous observation also indicated that undergraduate research was highly plagiarized. On the other hand, majority (70%) of the academic staffs believed that undergraduate research

exercise no doubt play an indispensable role to fortify students' research knowledge, skills and experience. According to the participants, to carry out sound undergraduate research, every stakeholder should work hard to establish good research culture at undergraduate level. The above discussions showed that the importance of undergraduate research in the respective department was not evenly recognized by all participants. It is also imperative to note that undergraduate research in the department lacked appropriate supports which seemed to impede the significance of research in students' academic and professional life.

Undergraduate research supervision

All student participants (100%) pinpointed that most research advisors had no commitment and interest to help students write a quality undergraduate research paper. They also ironically reflected as some undergraduate research advisors seemed to support replica research. With this regard, the participants explained that undergraduate research advisors were not committed to advice students works because of time limitation, poor benefit packages and fake research culture. The participants explained that after research topic approval there was no adequate follow up and support from the faculty as well as department to carry on quality undergraduate

research projects. Besides, the continuous observation showed that there were huge gaps between advisors and advisee to cordially work on undergraduate research paper. It was observed that most research advisors did not have clear schedule and time to advise research paper. The majority of research advisors complained that they had no flattering office environment and support to effective support undergraduate students in their research works. However, the majority of the research advisors (60%) used to externalize factors for less quality undergraduate research. This indicates that ensuring the quality of undergraduate research is not something left to the research supervisor or student researchers. It is an area that requires continuous follow up, commitment and supports.

Group undergraduate research

The graduates of 20013/14 at Ambo University had brought a new insight to this study. The student participants explained that undergraduate students were given direction to write research/senior essay paper in a group. The participants asserted that only few students, probably one or two, could hold all the responsibilities of doing the research works. The participants said that doing the research work in a group was encouraging to share experiences. However, they criticized most of the group participants had no

commitment as well as interest to participate in doing the research. The majority of teacher participants (80%) also supported that doing undergraduate research in a group encouraged sense of cooperation among students. However, the participants commented that students were not ready to share research knowledge and experiences at their exposure. Some of the teacher participants (20%) commented that doing undergraduate research in a group where all group members had no similar understanding on the importance of research was a loss. With regards, the observation results also indicated that students were not realizing the essence of doing research in a group. The majority of students considered that group research was an opportunity to get pass grade. This shows that there were loose orientation and follow up to encourage students to undertake quality research in a group.

Coordination among stakeholders

Most of the participants (75% of students and 55% of teachers) reflected that there was loose control and supports to guide students write original undergraduate research/senior essay paper. The participants asserted that there was no sound coordination among university, research faculty, departments as well as teachers and students to ban fake research. The teacher participants suggested universities across the country, be it in undergraduate or

graduate, should use software technology to control plagiarism in research.

Undergraduate research course

The majority of teacher participants (60%) alike in case I and II, explained that the research course at did not give adequate time and opportunity for students to practice research. However, some teacher participants (40%) reflected that the problem was not with the course coverage. They asserted that the course was not as the curriculum dictated. These participants emphasized that students had to be given sufficient time to exercise research works. One of the teacher participants also recommended that if students were given the chance of writing mini course projects and seminar papers right from their university life, they would not face challenges to undertake sound undergraduate research. Most of the teacher participants agreed that one research course, Research Seminar, alone could not help students to write a complete undergraduate research paper. As to these participants, the research course in the English Language and Literature curriculum did not address the entire research elements necessary to undertake basic and /or applied research. As a result, they pointed out that research courses had to be taught by senior staffs so that students could have the opportunity to share good research knowledge and experiences. Besides, most of these participants

shared that the methodology used to teach research course was not effective. Besides, it was revealed that the research course did not equally entertain the nature of researches in all fields incorporated in the program curriculum such as TEFL, Linguistics, Journalism and communication, and Literature.

From this case study, it is sensible to construe that the undergraduate research works in the study area had shortcomings. There were gaps among departments, students and advisors. There were less commitment and coordination to foster scholarly undergraduate research works that would lay strong ground for the students' future research and professional career. The research activities did not follow ethical guideline. Alike other universities, there were no undergraduate research fund and adequate professional support for students to carry out quality undergraduate research. Moreover, students did not internalize the essence of doing undergraduate research in a group; missing the rationale behind cooperative learning seemed to encourage dependency while undertaking undergraduate research in a group.

The group research works did not instigate students to make effort to learn how to embark on quality research. As the study revealed, students used to learn more about research; not research. The department together with other

concerned bodies should work hand in hand to equip students with the necessary research knowledge and skills so that every group members can contribute to his /her level best. The study also implied that the university should not leave the issue of undergraduate research to only departments and supervisors. There should be continuous support and follow up to ensure undergraduate students' progress in the research sphere; *"The quality of a university is measured more by the kind of student it turns out than the kind it takes in"* - Robert J. Kibbee.

Research exposure and dissemination

This case study also indicated that undergraduate students had no exposure to participate on research events, seminar, symposium, academic research workshop, research discussion sessions to deepen their research concepts and scientific research practices. All the participants (teacher and students) explained that there was no undergraduate research competition and institutionalized dissemination mechanisms to fortify students' sense of undertaking quality undergraduate research. With this regards, Hart (2012) asserted that university students should have opportunities to communicate their work to the wider audiences. This would encourage undergraduate researchers to be competent and promote quality undergraduate research endeavors. Disseminating

research results benefits students to improve their research knowledge and skills as well as exposure to their scientific community (Hensel 2012, Kinkead 2011). The desire to widen student participation in research dissemination activities therefore arises from an increasing body of evidence that the benefits to students in terms of communication and other graduate attributes are significant (Walkington and Hill 2013a, b). This implies undergraduate students should have the opportunity/ways to communicate their research works to the wider scientific community. This institutionalized research dissemination mechanisms can create sense of competition among students to come up with quality research works.

Conclusion

This study gave essential insight into the status of undergraduate research endeavors in the selected public universities in Ethiopia. The case studies revealed there are more similarities among the public institutions with regards to undergraduate research quality. The study asserted that undergraduate research is vital for students to succeed in their future professional development and career. However, the study indicated undergraduate research quality in the public universities is at risk. The scenario of undergraduate research, as to the case studies, is not targeted to the basic essence of scientific research. The

empirical literature also substantiated undergraduate research in the target institutions and department has a lot of gaps that require scientific approaches. The link between teaching and research in the undergraduate program tends to be loose in all the departments under study. The way undergraduate research has been operating is also not in line with scientific research principles and ethics. In general, the daunting quality of undergraduate research is attributed to academic institutions, teachers/research advisers, students and undergraduate curriculum.

Recommendations

Based on the study, the following recommendations were drawn to foster quality undergraduate research in Ethiopian public universities:

- There should be strong link between teaching and research in the undergraduate program.
- Research infrastructure and financial support should be in place to encourage quality undergraduate research.
- Universities should create opportunities for students to participate in research activities and events.
- Universities should create sense of competition among students (intra/inter universities) to promote quality undergraduate research.
- Universities should create opportunities that engage students

in direct research activities and events

- Universities should create wider platforms for students to disseminate their research works.
- Frequent assessment/evaluation should be put in place to review the quality of research in the university in general and undergraduate research in particular.
- Universities should coordinate all stakeholders for quality undergraduate research.
- There should be strong undergraduate research policy guideline.
- Research supervisors should effectively discharge their professional responsibility.
- Research supervisors should abridge their research knowledge and skill gaps through capacity building trainings and workshops.
- Undergraduate students should be aware about research ethics and principles.
- The undergraduate curriculum should give adequate room for research courses.
- Scholarly research should be encouraged to work on undergraduate research quality and related themes.

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