The Practices of Integrating Research-Based Knowledge and Teaching-Learning Process in Higher Education Institutions: The Case of Hawassa University, Girma Moti Geletu, Hawassa University, Ethiopia

Abstract

The purpose of this study was to explore the integration of research-based knowledge teaching-learning process in College of Education. The study was carried out using qualitative research design with case study method. The data were collected using interview, FGD, observation and document analyses from 30 participants. The curricular materials were not mapped around inquiry and unable to make practitioners' minds-on/hands-on activities. Besides, the works of the majority of students and instructors were not awesome in creating and utilizing findings as practitioners rather than being mere consumers. However, on one hand, few instructors and postgraduate students produced research outputs to accomplish academic promotion and partial fulfillment of their degrees respectively. On the other hand, instructors have shown high degree of ownerships on the research outputs due to meager experiences of students. The financial and material resources allocated for research is determined by the accountability system of the university in that the college is semi-autonomous. Hence, it was difficult to bridge the gaps between teaching and research due to perplexing dynamics emanated from financial problems, lack of motivations, experiences and poor curricular materials. As a result, HEIs are failed to produce top performance level graduates with critical thinking, originality and creativity. Besides, practitioners were not motivated in joint generation, utilization and dissemination of knowledge. In ensuring the nexus between the two disciplines, the declared proclamation should be shifted from 75%: 25% to 50%:50% for teaching and research respectively. Moreover, the types of the researches to be conducted and utilized by practitioners should be inclined to the disciplines rather than being influenced by the interests of the funders. Likewise, the College should establish strategies and revitalize efforts towards making researches more problem-solving and practical in the teaching-learning process.

Keywords: integration, research, teaching-learning process

Introduction

Background of the Study

Higher education institutions are distinct social organizations which are characterized by the coexistence of teaching and researching, among others. Through creating strong bond between education and research, higher education institutions are contributing to the social, economic, and cultural development of the given society. Hence, integrating teaching and research in higher education institutes opens opportunities for discussion among instructors, students and other stakeholders. However, higher education institutions are facing different serious problems in serving the public in providing necessary knowledge and in educating young people to address the current complex global challenges. In the journey of addressing these dynamics, the two main European policies, the Bologna Process started in 1999 and the Lisbon Strategy, including the modernization agenda for universities have been translated into new

national policies affecting principally governance, autonomy, funding, research and external quality assurance (Pavel, 2012). Within international framework, according to the Bologna Process the orientation of master studies in Europe tends to reach substantial improvement of a new generation learners and offers opportunities for originality in idea development and use including research. Purposefulness of the research in different rapidly changing and turbulent contexts reinforces the needs of all stakeholders such as children, families, professionals and the policy audiences (Maslo&Kiegelman, 2008). It is evident that pedagogical research is complex in nature and none of the existing methodological approaches can be sufficient to discover its complexity.

An actual task of contemporary Universities is to narrow the gap between research and teaching through a research-based approach to education by creating environment that includes vital integration of research activity and teaching learning process, new emphasis and support for innovations and better preparation of students as future professionals (Deem, 2007; Haverhals, 2007 & Tranter, 2007). Research-based studies with different modifications support a vision of a University that links research as a creative activity and education at every level (Deignan, 2009; Scripture, 2008). The integration of research and education could be promoted by creating a research and education environment, developing education and research programs that provide multi-disciplinary, team driven and system oriented educational opportunities to University students (Tranter, 2007). Meaningful research and educational experiences should take place in environment in which research and education fit together naturally and reinforce each other and in which interaction takes place among all actors.

Research and teaching are the two major mandates and responsibilities of Universities worldwide (Bridges, 2009). This task of doing both research and teaching activities is what distinguishes Universities from other teaching institutions (Shami and Kifir, 2002). However, the question remains as to whether there is a productive interaction between these functions and whether university academics practically link their teaching to research. In connection to this viewpoint, Brew & Bound (1995) underlined that there have been three different views on the types of relationships that exist between research and teaching at higher education institutions. These are: (1) The strong integrationist view which states that in order to be a good university teacher, you have to be an active researcher. (2) The integrationist view which states that there are links between teaching and research at the departmental or institutional level but not at individual level. (3) The independence view (unpopular one) which states that there is no causal relationship between the two.

However, Brew and Boud (1995) argued that much of the relationship between research and teaching is based only on an outcomes view of research as publication. Moreover, these authors maintain that it is not teaching and research that are directly related, but that each is related to learning. Focusing attention on research as learning is, therefore, shifting to a view of research as a process in which the researcher becomes more of a learner than a problem solver. It is when research is taken as a productive and applicable process that links teaching and research can be realized in terms of what the teacher learns from it and uses this learning

to improve his/her practice rather than mere publications. Teachers' focus only on publications will ultimately lead to the separation of research and their teaching practice (Barnard *et al.,* 2007). This pinpoints that the degree of improving the teaching- learning process using research findings is meager.

There is a situation that the traditional 'top-down model' of educational research, where non-teacher researchers propose solutions to educational problems and the teacher implements with fidelity have not impacted on practice (Rubdy, 2008). Using the top-down model, researchers very often ask and answer questions that may not help practitioners deal with day-to-day problems in their specific contexts (Crookes, 1993). This fidelity approach of curriculum implementation considers teachers only as practitioners and takes a lion share in researching and practicing. Moreover, the research involves knowledge in practical situations and using a knowledge-base to derive solutions to new problems, rather than internalizing world of knowledge itself.

In light of this, Griffiths (2004) & Healey (2005) proposed four models showing the links between teaching and research. Many teaching and learning activities may involve a mixture of these four approaches. These are: (1) Research-led teaching: students are mainly an audience, emphasis on research content. (2) Research-oriented teaching: students are mainly an audience, emphasis on research processes and problems. (3) Research-based teaching: student is active, emphasis on research processes and problems. (4) Research-tutored teaching: students are active, emphasis on research content.

Hence, research-based teachings along with research-based curricula were my conceptual frameworks for this study. Here, it is noticeable that the curriculum is largely designed around inquiry-based activities rather than on the acquisition of subject content, the experiences of staff in the processes of inquiry are highly integrated into the students learning activities, the division of roles between teachers and students is minimized and the scope for two-way interactions between research and teaching was deliberately implemented. For research-based teaching model, Griffiths (2004) recommended that research-based curricula are undertaking research and inquiry.

Here, the curriculum focus is on ensuring teaching and learning process and teaching as the main tasks of universities and thus, the student learns in inquiry mode (i.e. the students become producers of knowledge not just consumers) in the journey of promoting quality of education in HEIs. Therefore, the study revolves around how, why and when to integrate research-based knowledge and teaching-learning process in Hawassa University, College of Education and its implications for quality in HEIs.

Statement of the Problem

As means of transformation from knowledge generation to knowledge dissemination and utilization, ETP (1994) states that research of practical societal impacts is given priority in view of the fact that development is unthinkable without having skilled citizens that come out of competitive type of education system in the walk of globalization. When Ethiopia is moving

to stand among middle income countries according to 2020-2030 agenda of global sustainable development goals or the third mission, one may ask about quality of higher education and quality of instruction as key priority areas in the arena of development. More specifically, McIntyre (2005) stated that an effective teacher is the one who is professionally informed by knowledge from research in the teaching practice. This is because, "the key to effective teaching is definitely a balance between theory and practice" (Pacheco, 2005). This assures that through teachers' use of research-based knowledge quality of instruction can be improved.

In the Ethiopian context, much pressure in the reform agenda to enable teachers do more researches apart of their professional development and to improve their practice by linking their teaching to research; publishing and disseminating their research results in different journals as well as presenting on seminars and workshops (FDRE, 2003). So that the symbiotic relationship that exists among research, teaching and learning explain the contribution of research to teaching and to the quality of education on the one hand, and the opportunities that teaching creates for research activities to be undertaken on the other (Adane, 2000). This underlines that teaching and research are experience-based disciplines and are the two sides of the same coin and part and parcel of teachers' professional development in higher education institutions.

Despite these opportunities, there are full of complaints that research done by Ethiopian higher education institutions' academics are not serving the purpose of solving contextual problems in education (ETP, 1994). Moreover, Tsegaye (2000) argued that the apparent marginalization of the research activities from teaching-learning process has led to the persistence of educational problems. Related concerns have also been expressed in government policy documents (ETP, 1994). According to higher education proclamation (No. 531/2003) that governs higher education institutions in the country (FDRE, 2003); there are important requirements in this legislation that set the framework for research in institutions of higher learning. The higher education proclamation states that "academic staff" means an employee of higher education institution who devotes 75% of his time to teaching and 25% of his time to research. Most of the Ethiopian higher education institutions are not engaged in research and studies as much as required of them (Habtamu, 2003). This shows that research is seen as marginal aspect of teaching rather than being indispensable to maintain higher standards.

There may be occasions where students would feel they are just 'cheap labor' for the teachers, when they are engaged in actual knowledge production together with the teacher (Chang, 2005). This was seen to be explored from the perspective of distribution of authority (Dekker, 2016), where students and teachers in different disciplines were interviewed about their views of and experiences with research-based teaching. This reflects the concerns of ownerships and the challenges when students and teachers practice the linking of research and teaching in the joint supervision.

In the journey of investigation, one might ask the question, what is research-based teaching then? Research-based teaching is teaching through meaningful and real hands-on experiences in research: students are researchers and ask complex questions, search for answers by doing

research, and report about their research journey. The teaching-research nexus can be viewed as a continuum with no relationship between teaching and research at one end and a full relationship between teaching and researching at the other end. Universities can improve the relevance of their education and can better prepare the students for follow-up studies and to the new and emerging demands of the labor market in the 21st century. Moreover, a close intertwining of teaching and research strengthens their professional identity. Similarly, the research activities carried out in universities are inadequate both in quantity and quality due to challenges such as lack of research funds, fewer facilities, poor management support system, teaching load and shortage of qualified and committed staff (Dawit, 2014). In the Ethiopian context, there are few studies done on problems of research associated with higher education institutions (e.g. Adane, 2000; Habtamu, 2003; Dessalegn, 2006; Dawit, 2014.etc.). These studies revealed that research at higher education institutions in general is surrounded by number of perplexing paradoxes.

Higher education, research and teaching are the key axes and change dynamics in the walk of globalization. Today's students are active learners rather than onlookers waiting for other sources of information. They view themselves as participants in creating information and new ideas (Leadbeater, 2008). Accordingly, the 21st century instruction is based on three pedagogical principles (3P's) such as personalization, participation and productivity (Mc Loughlin and Lee, 2008). This allows learning through authentic real-world contexts and solving problems as they arise all of which constitute powerful learning strategies. Forming working relationships with teachers and partners in the community and working collaboratively with peers will contribute to productive learning experiences for learners worldwide (Bolstad, 2011). Research about how individuals learn provides valuable insights into the ways different pedagogies support learners in mastering the 21st century skills and competences, and best engages and prepares them for a complex and ever changing world.

Besides, my long experiences as researcher and practitioner in colleges of education persuades me to investigate the interrelationships between research and teaching, and evaluate the effects of research-based knowledge in augmenting the learning of students. I believe that research-based teaching is a promoter of higher order learning outcomes and critical thinking expected of higher education institutions. A fundamental belief motivating me to conduct this research was grown from my own relationship with constructivist disposition. Therefore, my constructivist epistemology asserts that knowledge is a product of the social context where meaning evolves from interactions with others (Clotty, 1998). Hence, my research related philosophical persuasions helped me to construct the framework in which the study is designed (Charmaz, 2006). This investigation is founded on pragmatic undertones with the belief that meaning is created through action and interaction from experiences-based education. Therefore, I believe that this particular study bridges the gaps in integrating research-based knowledge and instructional system. Hence, the previous local studies did not address the attempts of HEIs in integrating research findings and teaching learning process. On the basis of this rationale, in order to fill the gaps, I was initiated to explore the practices of integrating teaching and research in Hawassa University, College of Education in focus and its implications for quality of higher education institutions.

Objectives of the Study

The main objective of the study was to explore the integration of research-based knowledge and teaching-learning process in Hawassa University, College of Education in focus. More specifically, the study has the following objectives:

- Investigate the awareness, willingness and motivation of practitioners on the integration of research-based knowledge and teaching-learning process.
- Evaluate the effects of research-based teaching learning process on the joint generation and utilization of knowledge to produce competent graduates.
- Examine the cultures and recurrent practices/experiences of integrating research and teaching-learning process.
- Analyze the curricular materials whether or not designed around inquiry-based activities to prepare graduates for the 21st century world-knowledge and skills.
- Explore the competences of instructors and postgraduate students in ensuring integration of research and teaching-learning process.

Basic Research Questions

The central research question for this study is: 'What does the integration of research and teaching-learning process look like in Hawassa University, College of Education in focus?' Based on this question, the following key sub-questions were raised throughout the study.:

- How well are the institutional plans and strategies utilized to strengthen the nexus between research-based knowledge and teaching-learning process to produce competent graduates?
- What do the awareness, willingness and motivation of practitioners on the purposes and methods of integrating research and teaching-learning process look-like?
- How do students and academic staffs practice problem-based teaching-learning strategies?
- Are the curricular materials in college of education designed around inquiry-based activities to prepare graduates for the 21st century world-knowledge and skills?
- How do instructors and students practice the co-creation and utilization of knowledge in research-based teaching-learning process?

Research Design and Methodology

Research Method

To illuminate the degree of integration of research-based knowledge and teaching-learning process in Hawassa Unity, College of Education in focus, qualitative design with case study method was used. Case study is a design of inquiry found in many fields, especially evaluation in which the researcher develops an in-depth analysis of a case, often a program, event, activity, process, or one or more individuals. Cases are bounded by time and activity and researchers collect detailed information by using a variety of data collection procedures over a sustained period of time (Yin, 2009, 2012). Moreover, with this regard, Creswell (2014) assured that case study method is an approach to inquiry involving collecting qualitative data to make in-depth investigation. Through bringing philosophical foundations and

methodological considerations together in an ongoing praxis therefore, the researcher believed that case study is an appropriate method to show the current status of integration of research and teaching-learning process in Hawassa University, College of Education in focus and its implications for quality of HEIs.

Accordingly, my own knowledge development paradigm leads me to the investigative efforts and further rationales for selection of methodology, data collection, participants' selection and data analysis. In view of this, Creswell (2003) stated ontology as the claim researchers make regarding knowledge whereas epistemology is how individuals have arrived at that knowledge, and methodology is the process of studying the knowledge.

I agree with the contention that, "all knowledge and meaningful reality is contingent upon human practices being constructed in and out of interaction between human beings and their world, developed and transmitted within essential social context" (Clotty,1998). These ontological assumptions helped me to emphasize the lived experiences of educational leaders, instructors, postgraduate and PGDT students on the integration of research-based knowledge and teaching-learning process.

Sources of Data and Sampling Techniques

The participants in this qualitative case study method are generally chosen according to what is known as purposive sampling technique on the bases of specific criteria met by the participants at the moment of selection. Hence, 30 participants were selected to take part in this study; 13 participants (4 PhD, 5 Masters and 4 PGDT students). 7 instructors were selected using purposive sampling technique and participated in interview, and 10 participants (2 PhD, 3 Masters and 5 PGDT students) were engaged in FGD. Besides, the secondary sources of the data were instructional materials, plans and strategies, different academic research manuscripts such as Masters' theses, PhD seminars, thematic researches, disciplinary researches and action researches.

Data Collection Instruments and Processes of Analysis

The most appropriate data collection strategy for qualitative case study researches are an in-depth-interview, FGD and document analysis. Creswell (2014) suggested that the researcher should make an interview with 3 to 15 individuals and Polkinghorne (1989) recommended that the researcher can interview from 5 to 25 experienced individuals. Accordingly, to collect data from research directorate, educational leaders, instructors, postgraduate and PGDT students in Hawassa University, College of Education in focus, I prepared unstructured open-ended interview and FGD guiding questions in "English" because it is the medium of instruction in Universities. Among the total of 30 participants, in-depth interview was conducted with 20 participants (9 postgraduate students, 4 PGDT students and 7 instructors), and FGD was conducted with 2 teams holding 10 participants. Pseudonyms were given to each interviewee and FGD members to protect their identities. The collected data were coded and organized in thematic units.

Presentation and Discussion of Major Findings

I have identified a total of 86 individual verbatim statements shared by educational leaders, senior instructors, postgraduate and PGDT students. Of these, 65 individual verbatim statements represented relevant, non-repetitive, non-overlapping significant statements. These statements reflected the entire sentences and were a subjective extrapolation from the texts, and were grouped into 5 themes and 12 Sub-themes.

Theme of Major Findings of the Study

Theme 1: The Efforts of Practitioners

In line to this, an interviewee, RBT_6 centrally demonstrated that, "instructors and postgraduate students are trying to practice the spontaneous to-and-fro measure of performances to ensure institutional autonomy (academic autonomy and freedom) in teaching, research, and community services to ensure quality of education in order to achieve even the third mission to sustain education in HEIs. Besides, in respect to teaching-learning process, the degree of relationships between teachers and students, students and students, students and the curricula are found to be weak but the degree of the relationships between students and grade is very strong (RBT_3).

"Most of the time research is carried alone without any nexus with teaching by instructors and by non-practitioner researchers due to the priority areas of funders but expected to be implemented by instructors and students. Sometimes the funders or resource providers influence the research and teaching integration in that there are situations where teachers are shifting to research unrelated to teaching (RBT_2). Besides, instructors have better motivation, knowledge and skills than students who are loosely engaged in research projects due to lack of experiences, finances, consultancies and values given to utilization and publications of the research findings" (RBT_1).

On the other hands, the other interviewee argues that there is often integration between research and teaching to some extents such as using problem-solving methods, inquiry, laboratory, projects. etc. Accordingly, $RBT_{12,}$ "witnessed that the college is announcing for the academic staff to apply, compete and conduct interdisciplinary, disciplinary, internationally funded projects annually according to the schedule of the University. The equilibrium shifts in that there are no mutual relationships between teaching-learning process, research, training and social services. Besides, it is a question to me to find research-based teaching and learning processes where there is weak accountability system and being semi-autonomous" (RBT_7). However, the modern integration of research activities with teaching and learning promotes quality of instruction (Clark, 1997).

Subtheme 1: Conceptualizing the Nexus between Research and Teaching-learning Process

With respect to understanding of the nexus between research and teaching-learning process, one interviewee explained that, "I think that knowledge-based teaching is the result of the bond between teaching and research. And, I believe that when both academicians and students conduct research, ask questions, make exercise through hands-on/minds-on, one can gain knowledge informally and practically solve the problems following scientific procedures" (RBT_4). However, there is lack of understanding about the importance of the nexus between research and teaching by stakeholders.

Besides, respondent RBT_{12}, commented that, "when I see most of the course materials, they are not designed according to constructivist paradigm and student-focused approach that invite students to solve the problems through scientific method. This shows that research-based teaching is not widely conceptualized throughout the schools, departments and programs in the college of education".

Subtheme 2: Awareness, Willingness and Motivations of Academic Staffs and Students

In light of awareness and motivations, an interviewee, RBT_9, "suggested that I think academic staffs and PhD students have good awareness on the theoretical frameworks of research-based teaching-learning processes, but there is lack of motivation and encouragement to implement it". Moreover, RBT_{14} mirrors out that, "I understood research-based teaching is encouraging both students and academic staffs but the motivation is not practically encouraging".

In a similar manner, one of the interviewees, RBT_{20} confirmed that, "from my side, I can tell you that the legislation mirrors out that 25% of the time of the academic staffs is devoted to doing research and community services and 75% to teaching. But, academic staffs are doing research mainly for academic promotion and students are doing for course requirements and partial fulfillment of their BED/BA, MA or PhD degrees and the majority of the findings are to shelf. Besides, I don't think that this legislation by itself makes teachers to focus on teaching rather than research. Hence, to strengthen the integration between research and teaching, there should be a shift to devote 50% of the work time to teaching and 50% doing research". This idea is supported by the FGD that, "instructors and PhD students have awareness on the theoretical justifications and implementation of research-based teaching and lack motivations such as both extrinsic motivation (e.g. rewards, promotion), and intrinsic motivation from the side of professionalism" ($FGDR_1$).

Subtheme 3: The Culture of Research Based-knowledge and Teaching-learning Process

In respect of overshadowing the culture of research-based teaching, allocating reasonable budget for research and providing adequate infrastructure support is one of the important motivational conditions for productive research culture to flourish in an institution. "….as to my understanding, the trends of conducting research in my college is primarily not to improve teaching-learning process and it is for community service as the purpose of the funders but many findings are to the shelf and only few are implemented as trainings. Academicians usually conduct academic researches for academic promotion and fulfillment of their degrees from the side of students" (RBT_5). Also, one of the interviewees, RBT_8, commented that, "I think the culture of College of Education in implementing the integration of research-based teaching-learning process is relatively poor. Because the types of researches conducted were depending on the purpose of the funders or financial systems of the University. You don't have options to get money otherwise".

Hence, the equilibrium shifts is that there is no strong nexus between teaching and research in my college. Salazar-Clemeña and Almonte-Acosta (2007) noted that the ability of institutions and departments to pull external sources for financial resources assists the research culture.

Moreover, from focus group discussion teams, "it is evident that the trends of College of Education in integrating knowledge-based teaching learning process is on-and-off depending on the thematic and financial phenomenon of College of Education. Because you don't implement your responsibility system without human, material and financial resources" (FGDR$_1$ & FGDR$_2$).

Subtheme 4: The Quality of Course Materials

Even though there are attempts to integrate teaching and researches to some extent, there are no well-organized curricula with respect to research-based teaching. At the same time, no one is initiated to develop research-based curricula to ensure the nexus between teaching and research" (RBT$_8$). Moreover, "the quality or status of instructional materials are usually teacher-centered and something looks like learner-centered and do not help learners to integrate research–based knowledge and teaching and learning processes which entirely need to focus on inquiry-based activities. Therefore, we can say that research-based teaching and learning process are less understood and poorly implemented at both graduate and undergraduate levels" (FGDR$_1$).

Theme 2: The Practice of Co-creation of Knowledge by Academic Staffs and Students

One of the interviewees, RBT$_{10}$ suggested that, "as to my understanding, academic staffs and postgraduate students practicing the spontaneous to-and-fro movement in teaching, research and community services to ensure quality of education and achieve the third mission as well. But I think that most of the time the teaching-learning process is carried out theoretically without being supported by projects". In light of this, Gray *et al* (2013) suggested that while the research has certainly shaped and in effect endorses our focus on the curriculum, it does leave open and uncertain the extent to which organizations need a research 'presence'. Individual staff need research competence and understanding to support students involved in learning through some form of research or inquiry.

On the other hand, the other interviewee, RBT$_{18}$ ascertained that, "sometimes research is carried out by non-practitioners or external researchers and expected to be implemented by instructors and students in the schools". Besides, RBT$_{15}$ illustrated that, "I am certain that students are conducting research for fulfillment of their degrees and instructors support them as advisors for their professional support and as a source of increasing their income. Otherwise, they have no worries to integrate research and teaching and to recycle the findings into the teaching-learning process". Moreover, the other interviewee, RBT$_{13}$ stated that, "from my experiences, even though there are many problematic areas need to be solved, the joint creation of new knowledge between teachers and students is not encouraging. This nexus is not going beyond advisor-advisees or mentor- mentees relationship".

It was also evidenced from the FGD that, "the curricula are not inquiry-based, the learners are considering projects, field trips, laboratory and research works as tiring duties, and sometimes instructors are not willing to support, give feedbacks and guide learners to create knowledge in collaboration, lacks team spirit and team working" (FGDR$_1$& FGDR$_2$).

Subtheme 1: Accountability of Practitioners

The interviewee suggested that, "I think that it is difficult to say that there are accountability system when decisions about the curricula, finance, human and material resources are allocated and monitored from the center though the policy looks-like decentralization. But, I witnessed that the college is semi-autonomous in that it is only accountable for the implementation of the curricula and should not decide on financial issues" (RBT_{11}). Besides, RBT_3 indicated that, "instructors and students have no authority to improve instructional materials. And implement it as already prepared from the center for PGDT and as prepared by academic staffs. Otherwise, it requires budget to prepare research-based materials for teaching-learning process. But I contemplate that academic staffs and students are more accountable to integrate teaching and research".

Subtheme 2: Dynamics Perplexing the Integration

One of the interviews, RBT_{10} assured that, "I think the most serious factor that affects the implementation of research-based teaching is lack of instructional materials prepared in such manner. The other thing and even the most serious factor is lack of financial resources to be run by the College of Education". Similarly, RBT_8 suggested that, "our chances to get academic promotion are too limited because the criteria developed by the University are too high to achieve even the volume and index of the journal of publication expected is greater than 20 with high impact factor. Hence, the College lacks institutional autonomy and the teachers lack academic freedom as well. This is a similar problem throughout the University. I observed that the other unique perplexing problem in this University is that you couldn't get any academic promotion unless you served in this particular university for 4 academic years whether you are fresh graduate or served in other equivalent universities. This scenario undermines experienced teachers employed or transferred from other universities to conduct researches".

Subtheme 3: Experiences of Academic Staffs and Postgraduate Students

One of the interviewees, RBT_7 mirrored out that, "they ponder that academic staff have more experiences and accountability to implement research-based teaching relatively but facing multiple challenges in respect of motivations, curricular materials, financial resources, etc. Besides, they are certain that postgraduate students are experiencing some research projects for course requirements and in fulfillment of their degrees. Hence, students are participants rather than audiences". Usually, the findings of many of these projects are not recycled in the teaching-learning process as outputs.

Theme 3: The Effects of Research-based Teaching on Standards of Instruction

The balance between teaching and research is very weak and by implication low standards of quality of graduates in College of Education. "Instructors understand that most of the time, teaching is carried alone by instructors and sometimes research is carried out by non-practitioners or external researchers but expected to be implemented by instructors and students" (RBT_{16}).

Subtheme 1: Assumptions on the Status of Instructional Process

In light of the status of instructional processes, Robertson Blacker (2006) stated that teaching-research integration provides positive student and teacher perceptions and engagement of experiences with problem-based learning in instructional processes.

With respect to this, RBT_{11} ensured that, "I am certain to say that active-learning and continuous assessments were not perfectly implemented except the attempts of the cooperative learning strategies. Hence, we don't expect quality teaching-learning process under such phenomena where instruction is not fully student-focused".

Subtheme 2: Performance Levels of Graduates in the Joint Production of Knowledge

One of the interviewees, RBT_3 commented that, "I think that students need to be considered as both producer and consumer of knowledge in collaboration. To implement this, you need to have research-based curricula. Therefore, when I come to the quality of our graduates at postgraduate level, still we have three types of graduates (lower performer, medium and high performer) at their stay in the University". Moreover, in the focus group discussion, respondents confirmed that, "the teaching-learning process is not supported by inquiry or research activities and so that the graduate performance level is varying accordingly. Therefore, similar to primary and secondary schools, students are at three levels of performances based on the notion of inquiries, problem-solving activities and creativity or originality. According to HERQA (008/2006), all degree graduates are expected to demonstrate that they have acquired knowledge, skills and abilities identified in their programs' learning outcomes. Thus, it is difficult to prepare graduates for the 21st century works".

Theme 4: The Extent of Institutional Autonomy and Competences

RBT_6 described that, "educational leaders, instructors and postgraduate students recognized that the contributions of the College to national and local economic development to maintain high standards with respect to the production of motivated, skilled and knowledgeable human labor is not encouraging to maintain quality of instruction". Besides, Respondent, RBT_8 summarized that, "educational leaders are trying to exercise their responsibilities in quality assurance, research production and publication, cooperative learning, short and long-term training but the finance to implement these duties and responsibilities are from the center. This pressure ultimately affects quality of teaching and research, public services and resulted weak knowledge production and innovation practices".

Moreover, from document analysis I observed that the thematic, disciplinary, action researches manuscripts are produced by practitioners but not implemented in problem-solving actions. This shows that the College lacks accountability systems to solve educational problems associated with teaching-learning process.

Theme 5: The Effects of Accountability System

In light of this, RBT$_{17}$ summarized that, "I am sure that currently, the College has its own educational culture, structures from college level to department unit's level, and an access to technologies (actually weak). Hence, I believe the College is semi-autonomous to accomplish its duties as it is one of the institutions of the University to implement the integration of teaching and research".

Besides, "some challenges like problems of internal efficiency, quality and values given to research-based teaching profession need urgent improvements. Hence, I think it is difficult to manage communication gaps between different stakeholders through effective planning, implementation and monitoring the integration of teaching and research. Besides, I think that the College is selected as the Center of Excellence in teachers' education due to its best structure at the ground miles such as quality of human capital. But the process of assuring quality of instruction and the process of knowledge productions in particular require further hard working" (RBT$_{19}$). Based on the above premises, one of the interviewees, RBT$_7$ supposed that, "I contemplate that students are engaged in the teaching-learning process, research and conferences but the College is unable to integrate and balance the skills in teaching and research".

The materials for making a system of authority afford some actors in a social system more freedom in their actions than others. Thus, inadequacies of the resources suffocate the authority of public universities in balancing between teaching and research. Institutional autonomy grants an organization the ability to quickly and successfully source and exploit resources faster than its competitors (Abrutyn, 2009). Hence, the lack of integration between teaching and research is a consequence of limited resources to public universities.

Conclusions

Based on the central points of the themes and subthemes on the integration of research-based knowledge and teaching-learning process in the College of Education, I can conclude that the relationships between research-based knowledge and teaching-learning process are unquestionably essential to scholastic experiences. While the integration matters to the experience, it lies out of sight and is largely taken for granted. Indeed, the integration between research and teaching-learning process foregrounds the quality of education in general and that of instructional system in particular to solve practical problems. Moreover, from the findings summarized in the thematic units, I can conclude this study as follows.

In the integration of research and teaching-learning process, the actual practices were not promising even though there were institutional plans and strategies. Accordingly, practitioners had no willingness, motivation and encouragement to implement the integration of knowledge-based research and teaching-learning process. For instance, the status of the curricular materials at each level was not fully inquiry-based to make practitioners' hands-on activities to develop practical and lived experiences. Besides, there are circumstances where the works of instructors and students were not awesome in generating and utilizing research findings as participants rather than being mere audiences and consumers. These experiences

pledged instructors and students to be dependent on experts' information rather than becoming co-producers and disseminators of knowledge.

- The awareness, willingness and motivations of some students and instructors to exercise inquiry-based activities in the journey of the integration of research-based knowledge and teaching-learning process were found to be negligible, except the case that instructors and students are doing researches for their academic promotion and fulfillment of degrees respectively. But, the University encourages publications of articles on reputable journals.

- The accountability system of the University determines the financial resources allocated for both research and teaching and hence, it is difficult to strengthen the nexus between research and teaching where the accountability system has confounding dynamics emanated from financial problems, lack of motivations and experiences and poor curricular materials. The political, social and cultural contexts of the University elongated the communication channels between educational leaders and frontline implementers of the curricula and research activities. This untimely long route accountability system forces the practitioners to make soundless decisions on the implementation of the curricula, research works and community services on time.

- The commitment of management bodies, teachers and students in the integration of research-based knowledge and teaching-learning process to produce competent graduates with critical thinking, originality and creativity were not encouraging. Hence, the curricula were not fully student-focused and not allow learners to construct their knowledge on their efforts on the bases of inquiry, research, projects, research laboratory, etc.

- The integration between the two disciplines resulted in positive effects that few instructors and PhD students are trying to accomplish the missions and values of the College of Education by producing knowledge in the form of term papers, mini-research papers, projects and assignments. However, most students and some instructors were not motivated and confident enough in the joint production, utilization and dissemination of research-findings. These puzzling challenges resulted in threshold performance level graduates, and failed to produce top level performance graduates with creativity, originality and new insights.

- The legislation of higher learning institutions set the framework of higher education proclamation that states "academic staff" means an employee of higher education institution who devotes 75% of his time to teaching and 25% of his time to research". This has made the academic staffs to give more time for teaching rather than being engaged in doing research, and resulted in poor nexus between teaching and research activities.

- Many of the thematic researches, disciplinary researches, masters' theses, PhD seminars and action researches produced by practitioners are shelved in the library and offices rather than being published, disseminated and utilized by consumers, and recycled in the instructional processes.

- There were the missing of links between research and teaching-learning or failure to recognize the linkage between education, research and development (ERD) due to lack of focuses by leaders, followers and contexts.

Recommendations

This study foresees the integration of research-based knowledge and teaching-learning process and calls for vertical and horizontal effects where the management bodies, educational leaders, instructors and students work in collaboration to generate large pools of knowledge to achieve the missions and values of the University. On the bases of these grounds and justifications, I forwarded the following recommendations as directions to solve the identified challenges in the journeys of maintaining quality in universities:

- In order to materialize the integration of research-based knowledge and teaching-learning process, practitioners had better be rewarded, encouraged and motivated intrinsically and extrinsically by educational leaders and management bodies. Because, rewards, motivation and encouragement are instrumental for effective preparation and implementation of inquiry-based curricular materials, training and advising postgraduate students to participate in joint creation, utilization and dissemination of research findings.

- Educational leaders, management bodies and research director should minimize if not totally solving mystifying dynamics emanated from financial problems, lack of motivation, experiences and poor curricular materials which elongated the communication channels between the educational leaders and the frontline implementers of the curricula and research activities. This direction ultimately initiates the practitioners to make sound decisions on the integration of knowledge-based research and teaching-learning process.

- Management bodies, educational leaders, instructors and students had better develop commitment and possibilities in the integration of research-based knowledge and teaching-learning process. This is indispensable to produce competent graduates with critical thinking, originality and creativity through construction of large pools of knowledge on the bases of inquiry, research, projects, field trips, laboratory and findings of study as inputs and outputs.

- The types of the researches to be conducted and utilized by practitioners should be inclined towards the disciplines rather than being influenced by the interests of the funders. The University should recognize the roles of researches conducted by the academics and graduate students in its overall mission and encourages both the academics and students to do problem-solving researches those benefit the society. Moreover, the College should create a research environment where the University academics and students work together in discovering and disseminating knowledge.

- The College of Education is expected to disseminate the findings of thematic, disciplinary, theses and action researches through establishing journal of education for publication, preparing symposia, disseminating the findings with their recommendations and implications to primary consumers, curriculum designers and policy makers as well.

- Postgraduate students' researches (M.A/MSc and PhD theses) should be incorporated into the research system of the University and country's prioritized goals of development. As a result, the research outputs publications should be related to both academic purposes and development of the country. Besides, the outcomes should be commercialized and recycled in the instructional system, and duplication and plagiarism will be prevented.
- Literature suggests that 80% of the knowledge is gained from informal education and only 20% of the knowledge is gained from formal education. Therefore, it is worthwhile to recommend that the academic staffs of HEIs had better use 50% of his/her time to teaching and 50% of the time to research. By then, the integration between teaching and research will be strengthen and realized assuring that the two disciplines are dynamic in line to political, social and cultural development of the country.
- Education, research and development (ERD) should be linked through knowledge production, knowledge transfer and knowledge application, and calls for institutional critical thinking through (3Rs); renewing, reforming and restructuring thinking in the institutional systems.

Implications for Policy

Knowing that research findings are not utilized and disseminated and thus not being used for solving practical human problems is really discouraging. These scenarios request for appropriate and immediate policy measures that demand knowledge production, knowledge transfer and knowledge application functions with the research, right from commencement of the study to the point of application into instructional system to promote quality in HEIs.

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