

Full Length Research Paper

Research-Teaching Link in Higher Education Institutions of Ethiopia: the case of Jimma University

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This study examines the status of research-teaching link in higher education institutions of Ethiopia by taking Jimma University as a case point. Cross sectional survey research design was employed for this study. Data were collected from sample instructors, department heads, and students through questionnaires and semi-structured interview. The results reveal that higher learning instructors 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 and so on. Similarly, students had no experience of involvement in research except reading research papers or reports written by staff members. In addition, students and instructors have no pronounced opinion about the relationship between research and teaching. Students believe that staff involvement in research have both positive and negative impacts on students learning.

Keywords: research, teaching, research-teaching link, higher education

INTRODUCTION

Many educators believe that there is a close relationship between teaching and research in higher education. For example, Perry (1987) as cited in Berhanu (2008) holds the view that good teaching at both undergraduate and graduate level 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. Jenkins (2009) takes the same position on the relationship between teaching and research. He argues that the pursuit of advanced study must be a recognized and funded as a part of a teaching process.

Though there are different conceptions on the concept of research teaching link, for this study integrating or linking research and teaching is about inculcating the skills of enquiry and research into students in all teaching learning process through different mechanisms. As Zetter, (2002), pointed out in an information rich world instilling research skill in students (linking research and teaching) is much more important educationally than providing students with content knowledge.

As a result, the relationship between teaching and

research in the modern university is one of international concern. For instance, recent studies in Australia (Zubrick et al., 2001), the UK (Southampton Institute, 2000), and the United States (Boyer Commission, 2001) indicate this. For many people a key characteristic of a university is where teaching and research are brought together.

As Jenkins et al. (2007) pointed out research and teaching are essential and intertwined characteristics of a University. Evidence suggests that students value the idea of studying in a research-rich environment as they feel that they are part of a 'research community'. Increasing focus on linking research and teaching can aid students' learning, their pride in their discipline and department, staff morale, and the overall effectiveness of the department and the institution. Similarly, Brew (2006) also added that creating a strong link between research and teaching will help to develop graduates who are innovative and curious about the world as well as increase the status of the institution. It also helps to enhance students' learning experiences by progressing the ways in which coursework teaching is informed by disciplinary-based research at all levels.

Furthermore, Jenkins et al. (2007) pointed out the

importance of students being able to understand and to an extent do research through integrating teaching and research now is very important. The authors added that universities need to be reformulated to help students and society deal with problems. Students' understanding of knowledge generation, research and arguably, their ability to do research, is vital to that objective. Many contend that the new 'knowledge economy' requires that students graduate with an ability to analyze and contribute to research (Garrick and Rhodes, 2000). In a knowledge society, how knowledge is developed (research) and transmitted (teaching) is critical. Indeed it is these arguments from a knowledge-economy perspective that have probably been most important in moving the different government of the world away from a 'teaching-only' perspective.

Generally, the importance of linking teaching and research for students' better learning is documented in the existing literature. For instance Jenkins et al. (2003) explained that involving students in inquiry, in research is a way of improving their learning, motivating them more. They further argued that what motivates large numbers of academics is engaging in the excitement of research. Hence, bringing research and teaching together is a way of enhancing the motivation of both academics and students.

Cognizant of this fact the Education and Training Policy of Ethiopia suggested that in higher education and in technical and vocational education programs there should be nexus between education (teaching) and research (Transitional Government of Ethiopia [TGE], 1994). Similarly, the Higher Education Proclamation of the country has to say this "every institution shall undertake researches that equip students with basic knowledge and skills that enable them to undertake further and relevant studies and research" (Federal Democratic Republic of Ethiopia [FDRE], 2009:4990).

However, few studies (mostly of indirect ones) on undergraduate students' research practice shows that students have no adequate background for conducting research. For instance, Abdinasir (2000) has 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 knowledge and practical research skills. Similarly, Nuru (2005) has also conducted research on undergraduate student research papers of students and found out that their research paper is poor that indicates students are not equipped with the necessary knowledge and skills of research. This might be because either they do not take research courses or the courses are not adequately integrated with teaching. Moreover, to the best knowledge of the researcher there is no research conducted that show the presence or absence of link between teaching and research in undergraduate education of the country.

Therefore, this study is aimed at filling this gap by

revealing the current practice of the link between teaching and research in undergraduate programs of Ethiopian higher education institutions by taking one university (Jimma University) as a case point. More specifically this study aims at examining the involvement of higher education institution instructors in disciplinary research. Then the second purpose was to investigate higher education institution instructors' practice of linking research with teaching. Finally, this study wanted to assess instructors' and students' perception on the link between teaching and research in higher education institution

This study would have a paramount significance for different stakeholders in higher education. First it helps to University instructors to design a mechanism for relating teaching and research so that they can enhance their students learning. It would also help the University administrators at different level design a curriculum framework that help the departments use to link teaching and research when they design a curriculum or a course so that it can improve the quality of education in the university and scale up excellence in teaching- learning and research. Finally, the research would be significant for Higher Education Relevance and Quality Assurance Agency to design certain standard for linking teaching and research in higher education institutions that can be used by all universities to assure quality of education in higher learning institutions of the country.

METHODOLOGY

The research design used for this study was cross sectional survey research design. It is appropriate for the study because data were collected from the different departments, instructors, and students at one time.

Due to limited time and resources the researcher could not include all or many universities in the country for this study. As a result one university that is Jimma University was selected as a sample of the study. There are six colleges in the university. From the total colleges of University two (Natural and Computational Science and Social Science and Law) colleges (due to cost and time) were selected through simple random sampling techniques. Then from each college again two departments that is Chemistry and Mathematics (from Natural and Computational Science College) and Geography and Environmental Studies and Educational planning and Management (from Social Science and Law College) were randomly selected as a sample of the study.

Then from all the four sample departments all the instructors who teach in that department, and department heads of the sample departments were taken as sample of the study by availability sampling techniques. Moreover, from the two groups (classes) of graduating class students of each sample department one group of

students were taken as sample of the study through simple random sampling technique.

The instruments that were used for data collection in this study were questionnaires, and semi-structured interview. These instruments were developed in such a way that they maximize the possibility of generating answers to the basic research questions.

Questionnaire was employed to collect data from the sample students and instructors. Close-ended likert types of questionnaires were prepared based on the review of literature. The questionnaires were focus on the leading questions such as the practice of instructors' involvement in research, linking research and teaching, and perception of students and instructors on the link between teaching and research.

Another instrument that was used in collecting data was structured interview guide from department heads to get detailed information about the extent to which instructors in their department link research and teaching and their perception about the link.

To maintain the validity of the instruments, after preparing the instruments the researcher gave for two experts in the area of education in the same university for comments. Then based on the comments given the instruments were revised that is some irrelevant items were discarded and some ambiguous items were modified as per the comments given by the expert. And then the issue of reliability was addressed by pilot testing of the instruments in one college in the university and the samples used for pilot testing were excluded from the actual data collection. An internal consistency reliability estimates was calculated using Cronbach's coefficient of Alpha for the students and teachers questionnaires and the coefficient was calculated to be (0.60) for students and (0.64) for instructors which is regarded as a good correlation coefficient by Jackson(2009).

After preparing the close ended questionnaires, it was administered to all sample students and instructors of the sample departments by the researcher and enough time was given for them to fill and return it.

With regard to the interview, the semi-structured types of interview questions were prepared and the instrument was given to two experts to comment and then the interview questions were refined/ improved and make ready for the actual process. Then the researcher has arranged an appointment with each sample department heads for interview and conducted face-to face interview.

Data Analysis

The collected data were analyzed by using quantitative and qualitative techniques. For the quantitative data that were collected through close ended questionnaire were coded and analyzed using frequency, and percentage.

The qualitative data that were gathered through interview were analyzed qualitatively. The qualitative

information was organized in categories and themes through coding. Then thematic analysis was used as method of analysis. The qualitative data helps as supplementary to the quantitative data collected through questionnaires.

Ethical considerations

The purpose of the study was explained to the participants and they have asked their consent to answer questions in the questionnaire or interview guide. The participants were also informed that the information they have provided will only be used for the study purpose and that it will not be given to a third party. Accordingly, the information that the participants provided was used only for the study purpose. In addition, the researcher ensured confidentiality by making the participants anonymous.

RESULTS

Background information of the participants

The sources of data for the study were university instructors, department heads, and graduating class students. The following table shows the distribution of the study participants across selected demographic characteristics.

As can be seen from Table 1, four departments from the two colleges were selected as sample departments. In each sample departments there are two group of graduating class students from the two groups one group is taken as sample of the study. A total of 187 students were taken as a sample of the study from this sample the majority 146(78.07%) of them were males and the rest were females. Moreover, college wise the distribution of the participants in terms of number is almost equal. On the other hand, from the sample departments a relatively higher number of students were participated from Educational Planning and Management and Mathematics department. Generally, a total of 221 questionnaires were administered for the sample department students but only 187 questionnaires were successfully filled and returned this makes the response rate to be 84.61 percent, which is regarded as very good response rate according to Cohen, Lawrence, and Keith (2007).

As can be seen from Table 2, four departments from the two colleges were selected as sample departments. From each sample departments all the academic staffs were taken as a sample of the study, however, the numbers of respondents that are shown in the Table 2 are only those who returned the questionnaires. As it is seen the relatively large number of participants (14) from Educational Planning and Management department followed by Chemistry (13). Whereas, small (6) numbers of respondents were from Geography and Environmental

Table 1. Participant students' distribution with their college, department and sex

College	Department	Sex		Total
		Male	Female	
Natural and Computational Science	Chemistry	33	4	37
	Mathematics	40	11	51
Social Science and law	Geography and Environmental Studies	37	9	46
	Educational Planning and Management	36	17	53
Total		146	41	187

Table 2. Participant instructors' distribution across department, college, and sex

College	Department	Sex		Total
		Male	Female	
Natural and Computational Science	Chemistry	12	1	13
	Mathematics	10	1	11
Social Science and law	Geography & Environmental Studies	6	-	6
	Educational Planning and Management	14	-	14
Total		42	2	44

Table 3. Instructors age across departments

Department	Age in years				Total
	20-25	26-30	31-35	>36	
Chemistry	1	6	3	3	13
Mathematics	-	3	4	4	11
Geography and Environmental Studies	-	1	2	3	6
Educational Planning and Management	-	4	6	4	14
Total	1	14	15	14	44

Studies department. Concerning sex the great majority of the respondents were males 42(95.5%).

College wise the distribution of the participant is almost equal. Generally, as it is seen from the table in all departments the participants are almost slightly above ten instructors except Geography and Environmental Studies department; and as well as most of them were male participants. In addition to the sample department instructors, department heads of the sample departments were included as a sample of the study.

A total of 62 questionnaires were administered for the sample department instructors but only 44 questionnaires were successfully filled and returned this makes the response rate to be 70.96 percent, which is regarded as good response rate according to Cohen, Lawrence, and Keith (2007).

Table 3, above depicts that the age of majority 29(65.90%) of the respondents ranges from 26-35 years, whereas small number (1) respondents are in the age ranges of 20-25 years old. This implies that the majority

of the participant instructors are young.

As can be seen in the Table 4 the academic ranks of the sample respondents ranges from graduate assistance to associate professor. From the total sample instructors the great majority 39 (88.63%) of them were lecturers. While only two samples were associate professors. This shows that the academic profiles of universities that are set by the Ministry of Education (20% of graduate assistant, 50% of lecturers, and 30% of professors) are not to the standard.

Regarding the teaching experience of the participants, as the same table shows most of the instructors have served between the age ranges of 6-10 years, while 1 instructor has a service of 1-5 years. This implies that the majority of the instructors are not fresh graduate rather they have served in the teaching profession for a relatively long period of time.

To investigate the work conditions of the instructors in the demographic data part of the questionnaire participant instructors were requested to indicate the

Table 4. Academic rank and teaching experience of instructors across department

Department	Academic Rank				Experience				
	GA	L	Ass. P	Assoc. P	P	1-5	6-10	11-15	>16
Chemistry	2	9	1	1	-	1	5	4	3
Mathematics	-	10	-	1	-	-	4	1	6
Geography and Environmental Studies	-	6	-	-	-	-	2	1	3
Educational Planning and Management	-	14	-	-	-	-	8	5	1
Total	2	39	1	2	-	1	19	11	13

Note: GA= Graduate Assistant; L = Lecturer; Ass. P = Assistant professor; Assoc. P= Associate professor; P=Professor

average number of students in their classroom, the total workload (credit hour) that they taught in that semester, as well as the number of courses that they were teaching. The results showed that the sample instructors on the average taught 74 students in a class and 10 credit hours per week as well as most of them teach single course in that semester. This shows that the sample instructors are teaching large number of students in one classroom, one course, and almost the maximum workload, that is twelve credit hours per week.

Instructors practice of research

Before going to the discussion of the link between research and teaching it is a good idea to see instructors practice of research. Respondent instructors were requested in a survey questionnaires whether they are involved in disciplinary research or not and the majority 33(75%) of the instructors confirmed that they have not conducted research other than the one they have conducted for the partial fulfillment of their first, second and/or third degree. On the other hand, those respondents who affirmed that they have conducted research were requested to reveal the number of researches they have undertaken since graduation, and the majority 9(81.8%) of respondents stated that they have conducted one research.

With regard to this issue department heads of the sample departments were interviewed. One of the department head has to say this *"I have served as instructor in this university for many years, in my stay I have seen few instructors who are hardworking that try to undertake research but the majority of the instructors in my department or in other departments are engaged in routine activities mostly teaching large number of students throughout the year."*

To further clarify the above response, respondent instructors were asked the existence of research teams and research seminars at departmental or college level,

all the respondents anonymously assert that there is no such teams and research seminar at the department as well as at college or faculty levels that encourage staffs to do research. The responses of department heads also confirm this.

Moreover, the other mechanism that encourages academic staffs to conduct research is having a publication in the university as well as college levels since one of the requirements in academic career promotion in higher education is conducting research and publishing in the different media that are acceptable for promotion. Thus, to investigate the existence of research publications in the college and university level respondent instructors were requested through the questionnaires and the result reveals that the majority of the respondents 28(63.6%) indicated that there is no research publication in their college or faculty. While relatively small proportion 16(36.4%) of respondents replied that there is a research publication. Furthermore, those respondents who confirmed that there is research publications, were asked to specify the kind of publications and all of them 16(100%) pointed out that the existence of research journal.

Supporting the above idea I have interviewed sample department heads and all of them disclosed that there is one research journal which was under the then Faculty of Education that comprises the current Natural Science, Social Science, and Institute of Education and professional studies.

It is clear that in principle and in the MOE (2009) documents as well as in the university legislations (JU, 2005) every teaching staff should devote 25% of his work time in conducting research. To investigate the actual time the academic staffs dedicate to research activity respondents were requested in a closed ended questionnaires and the result shows that the great majority 37(84.1%) of the respondent instructors verify that they did not assign time for research or they have no time for research. Similarly, the respondents were requested to reveal whether the academic staffs of their

Table 5. Students awareness about research activities in the university

S.No	Item	Yes		No	
		No	%	No	%
1	Research seminars/conferences	74	39.6	113	60.4
2	Notice boards advertising research and postgraduate/ Masters opportunities	125	66.8	62	33.2
3	Existence of Research Units	147	78.6	40	21.4
4	Areas within the University with national/international research reputations	86	46.0	101	54.0
5	Research posters/exhibitions/displays within the University	106	56.7	81	43.3
6	Research reports produced by the University	147	78.6	40	21.4

Table 6. Students awareness of staff research activities

S.No	Item	Yes		No	
		No	%	No	%
1	Undertaking a research degree (e.g. Masters/PhD)	107	57.2	80	42.8
2	Undertaking non-funded personal research	68	36.4	119	63.6
3	Undertaking funded research	112	59.9	75	40.1
4	Writing for publication	104	55.6	83	44.4
5	Producing creative works embodying original research	110	58.8	77	41.2
6	Supervising research students	139	74.3	48	25.7

college/faculty engaged in research or not, all of them anonymously corroborate that they are not involved in research.

On the other hand, to crosscheck instructors' response on their research practice sample graduating students were asked about their awareness on their instructors' research activity in particular and research activities of the university in general and the result is presented in table below.

As it is presented in Table 5, student respondents are aware of that research is conducted at the university, though not to the full extent: they know about the existence of research institutes and unit/centers 147(78.8%), research reports produced by the University (e.g Books, journal articles and other forms of research output) produced by university staff 147 (78.6%), and about notice boards advertising research and postgraduate/ Masters opportunities 125(66.8%). They are also aware about the research posters/exhibitions/displays within the University 106(56.7%). However, they are less aware of the research seminars/conferences and areas within the University with national/international research reputations 113(60.4%) and 101(54.0%) respectively.

In addition to the above question students were asked their awareness about the varieties of research activities of their instructors and the responses are summarized in the table below.

Table 6, above depicts that almost half of the respondents know each variety of research activities of their instructors. They are aware of undertaking a research degree (e.g. Masters/PhD/), undertaking funded research, writing for publication, writing for publication,

producing creative works embodying original research, and supervising research students. On the other hand, they are less aware of their instructors undertaking non-funded personal research.

Research Teaching Link

Experience and research evidences show that linking research and teaching has a paramount importance for students learning. In other words, the importance of linking research and teaching for students' better learning is documented in the existing literature. For instance Jenkins et al (2003) explained that involving students in inquiry, in research is a way of improving their learning, motivating them more. To investigate whether research is integrated with teaching by instructors, respondent instructors were requested and the result unveil that most of instructor respondents 31(70.5%) made clear that from their experience there is no culture/experience that help students to be involved in their departmental and discipline research.

Likewise the department heads response show that there is absence of culture of involving students in research. For instance, one of the department head stated, *"after all there is no research project in my department, if there is a research project it is the individual instructor's project. When the individual instructor prepare a research proposal present it and if he/she secure fund from the university research and publication office he/she only do it by him/herself, there is no culture of participating students in a staff research."*

On the other hand, to elicit information on whether

Table 7. Ways of relating research with teaching

No	Methods	Yes		No	
		No	%	No	%
1	I draw on my personal research in designing and teaching courses	-	-	44	100
2	I place the latest research in the field within its historical context in classroom teaching	14	31.8	30	68.2
3	I design learning activities around contemporary research issues	-	-	44	100
4	I teach research methods, techniques and skills explicitly within Subjects	17	36.6	27	61.4
5	I build small scale research activities into undergraduate assignments	25	56.8	19	43.2
6	I involve students in departmental research project	-	-	44	100
7	I encourage students to feel part of the research culture of departments	13	29.5	31	70.5
8	I infuse teaching with the values of researching	6	13.6	38	86.4
9	I conduct and draw on research into students learning to make evidence-based decisions about teaching	-	-	44	100
10	I usually provide for students a small scale literature review on the courses that I am teaching	20	45.5	24	54.5

instructors' link research with teaching while they teach their undergraduate students in any courses they are teaching, instructors respondents were asked to disclose and the result clearly indicate that great majority of the respondents 36(81.8%) agreed that instructors did not relate their research with teaching. This finding of the survey disclosed that since instructors have not tried to relate research with teaching in courses, their students are not benefited from the staff research.

Different scholars argue that today in this changing world what is important is not teaching the knowledge of a certain subject since today's true knowledge may not be true knowledge for tomorrow rather what is more important is teaching students how to learn. This can be achieved through teaching research skill. Thus, research skills should be taught in every course that the students are taking. To what extent instructors are teaching research skills in every course they are teaching respondents were asked and the response reveal that most of the respondent instructors 33(75.0%) affirm that they did not teach research skills in every course they are teaching. This finding of the survey shows that instructors are teaching simple content knowledge and disregard teaching the most important skill of learning that is learning how to learn that may benefit more students after graduation.

The same question was forwarded for the sample department heads and they confirm that they did not relate it. For instance one department head has said this" *at departmental level there is no clear guideline that encourage instructors to link research with teaching except teaching research methodology course that would help the students to have the necessary research skills and do their final senior essay.*

Generally, respondent instructors were solicited to declare the extent to which their department related staff/instructors research with teaching both in the theory (curriculum documents) and in practice (actual teaching

learning process); all of them anonymously believe that their department did not relate research with teaching explicitly or implicitly. This findings of the survey showed that to relate research with teaching it should start from the department documents and goes to the instructors practice since unless the curriculum clearly specifies the clear link between them it may be difficult to expect from the instructors to link the two.

Today, Universities all over the world are striving to achieve an enriching nexus between research, learning and teaching. This include commitment to introducing undergraduate students to research insights, methods and values as one of the distinguishing features of the university experience. To create link between research and teaching in the universities undergraduate program, there are various methods. To investigate how the university instructors relate research with teaching a set of methods of enhancing the nexus between the two were presented and they were requested to confirm which method they used in creating the link between research and teaching and the summary of their response is demonstrated in the table below.

Table 7, above depicts that all the respondent instructors agree that they did not use methods such as drawing on my personal research in designing and teaching courses, designing learning activities around contemporary research issues, involving students in departmental research project, and conducting and drawing on research into students learning to make evidence-based decisions about teaching to enhance the link between research and teaching in the courses they are teaching. On the other hand, a relatively small proportion of instructor respondents 25 (56.8%) and 20 (45.5%) disclosed that they used methods of build small scale research activities into undergraduate assignments and providing for students a small scale literature review on the courses that they teach respectively.

On the other hand, to see the relationship between

Table 8. Students experience on the research teaching link

S.No	Item	Yes		No	
		No	%	No	%
1	Hearing a member of staff discuss their research work in a course	82	43.9	105	56.1
2	Hearing a guest lecturer discuss their research work in a course	90	48.1	97	51.9
3	Reading a research paper or report written by a member of staff	96	51.3	91	48.7
4	Critically examining art/artifacts, such as an image, performance, device or design, produced by a member of staff	34	18.2	153	81.8
5	Attending a University research seminar (not as part of a course)	45	24.1	142	75.9
6	Attending a research conference	54	28.9	133	71.1
7	Attending an artistic performance or exhibition linked to your subject area(s)	73	39.0	114	61.0
8	Being a subject/participant in a research project run by a member of staff	64	34.2	123	65.8
9	Development of research techniques	142	75.9	45	24.1
10	Undertaking an independent project as a part or whole of a course	111	59.4	76	40.6
11	Being involved in practical activities/ based on research projects	106	56.7	81	43.3
12	Acting as a research assistant	63	33.7	124	66.3
13	Contributing to a research conference paper or poster	42	22.5	145	77.5
14	Contributing to a research paper report or research output	86	46.0	101	54.0

research and teaching from the point of view of the students, the respondents were requested to indicate the activities that they are experienced and the results are presented in Table 8.

The above Table 8 illustrates that during their three years stay at the university, students report infrequent involvement in research. The most manifest contact with research is reading a research paper or report written by a member of staff 96(51.3%), development of research techniques (e.g. interviewing, laboratory analysis, performance skills, design skills, statistical analyses, textual analysis, archival search skills, fieldwork skills) 142(75.9%), undertaking an independent project as a part or whole of a course 111(59.4%), and being involved in practical activities/fieldwork based on research projects 106 (56.7%).

Students report having hardly or no experience with hearing a member of staff discuss their research work in a course 105 (56.1%), hearing a guest lecturer discuss their research work in a course 97 (51.9%), critically examining art/artifacts, such as an image, performance, device or design, produced by a member of staff 153(81.8%), attending a University research seminar (not as part of a course) 142(75.9%), attending a research conference 133(71.1%), attending an artistic performance or exhibition linked to your subject area(s) 114 (61.0%), attending an artistic performance or exhibition linked to your subject area(s), being a subject/participant in a research project run by a member of staff 123(65.8%), acting as a research assistant 124(66.3%), contributing to a research conference paper or poster 145(77.5%), and contributing to a research paper report or other form of research output 101 (54.0%).

Instructors and students perception on research and teaching link

One of the main objectives of this research is to investigate the perception of university instructors on the link between research and teaching. To achieve this objective likert types of questionnaires were prepared based on the review of literature. The responses of instructors' respondents are summarized in Table 9.

The result shows that respondent instructors have no pronounced opinions about the relationship between teaching and research. As it is seen in the above table the greater majority 40(90.9%) of the respondents suppose that research teaching link is useful for inducting students into their discipline's values, practices, and ethics and when there is a link between research and teaching students benefit a lot. In addition, a relatively significant number of respondents 28(63.6%) and 24(54.5%) believe that in their department students have no opportunity to participate in departmental research project as research assistant and in their department there is no practice of relating research with teaching respectively.

On the other hand, most 35(79.5%) of the instructors believe that they usually did not make connection between research and teaching in their day-to-day teaching activities, and again majority 39(88.6%) of the instructor respondents hardly made students aware of the research activity in the department in different ways for instance through guest lectures, site visits.

One of the main objectives of this research is to investigate the perception of graduating students on the link between research and teaching. To achieve this

Table 9: Instructors perception on the link between research and teaching (N=44)

No.	Item	SD	DA	UD	A	SA
1	I usually make connections between research and teaching in my day-to-day teaching activities	21 (47.7%)	14 (31.8%)	7 (15.9%)	1 (2.3%)	1 (2.3%)
2	Research teaching link is useful for inducting students in to their discipline's values, practices, and ethics	-	-	4 (9.1%)	17 (38.6%)	23 (52.3%)
3	In my department there is no practice of relating research with teaching	-	9 (20.5%)	11 (25%)	13 (29.5%)	11 (25%)
4	Students benefit a lot when there is a link between research and teaching	-	-	4(9.1%)	16(36.4%)	24 (54.5%)
5	I made students aware of the research activity in the department in different ways for instance through guest lectures, site visits	24 (54.5%)	15 (34.1%)	5 (11.4%)	-	-
6	In my department students have no opportunity to participate in departmental research project as research assistant	-	7 (15.9%)	9 (20.5%)	15 (34.1%)	13 (29.5%)
7	There is a deliberate effort made to help students feel part of the research community in the university	10 (22.7%)	18 (40.9%)	6 (13.6%)	6 (13.6%)	4 (9.1%)

Note: SD=strongly disagree DA= Disagree UD=Undecided A=agree SA=strongly agree

Table 10. Students' perception on research teaching link (N=187)

No.	Item	SD	DA	UD	A	SA
1	I have little awareness of my lecturers' research interests	32 (17.1%)	75 (40.1%)	14 (7.5%)	39 (20.8%)	27 (14.4%)
2	I was aware of the research reputation of staff in my subject area(s) when I applied here	31 (16.6%)	65 (34.75%)	-	52 (27.8%)	31 (16.6%)
3	I am not aware of the benefits that the involvement of staff in my subject area(s) in research give me as a student	74 (39.6%)	58 (31%)	9 (4.8%)	32 (17.1%)	14 (7.5%)
4	Staff involved in research are more enthusiastic about their subject	17 (9%)	58 (31%)	13 (6.9%)	52 (27.8%)	48 (25.7%)
5	Staff not involved with research spend more time helping students	22 (11.8%)	52 (27.8%)	33 (17.6%)	42 (22.5%)	38 (20.3%)
6	I have learnt most when undertaking my own research project	7 (3.7%)	23 (12.3%)	6 (3.2%)	77 (41.17%)	74 (39.6%)
7	Insufficient attention is given in the subject(s) I study to developing our research skills	53 (28.3%)	59 (31.5%)	19 (10.2%)	32 (17.1%)	24 (12.8%)
8	The most effective teaching is when the lecturer involves us in aspects of the research process	8 (4.27%)	11 (5.9%)	21 (11.2%)	71 (37%)	76 (40.6%)
9	I would like to be actively involved in the research of my instructor	6 (3.2%)	13 (6.9%)	21 (11.2%)	71 (37%)	76 (40.6%)
10	I think it is important that my instructors report on their own research during their classes	18 (9.6%)	23 (12.3%)	9 (4.8%)	73 (39%)	64 (34.2)

Note: SD=strongly disagree DA= Disagree UD=Undecided A=agree SA=strongly agree

objective likert types of questionnaires were prepared based on the review of literature. The responses of student respondents are summarized in Table 10.

The result shows that of the respondent students have no pronounced opinions about the relation between teaching and research. As is seen in above table most

147(78.5%) respondents confirmed their agreement that teaching is effective when the lecturer involves them in aspects of the research process and they would like to be actively involved in the research of their instructor each. Moreover, a greater majority 151(80.7%) of the student respondents have affirmed that they have learnt most

Table 11. Students' perception on the positive significance of staff involvement in research (N=187)

S.No	Item	Yes		No	
		No	%	No	%
1	Increased my understanding of the subject	178	95.5	9	4.8
2	Contributed to the development of my research-related skills	168	89.8	19	10.2
3	Increased my awareness of methodological issues	167	89.3	20	10.7
4	Stimulated my interest and enthusiasm for the subject	146	78.1	41	21.9
5	Motivated me to consider pursuing postgraduate research in the same area	125	66.8	62	33.2
6	Increased my awareness of the problems and issues faced by Researchers	137	73.3	50	26.7

Table 12. Students' perception on the negative impact of staff involvement in research (N=187)

S.No	Item	Yes		No	
		No	%	No	%
1	Lack of availability of these staff to see me	122	65.2	65	34.8
2	Apparent lack of interest by these staff in teaching and facilitating my learning	98	52.4	89	47.6
3	Apparent lack of interest by these staff in supporting my academic welfare	85	45.5	102	54.5
4	Apparent inability by these staff to explain material in ways in which I can understand	125	66.8	62	33.2
5	Their research/consultancy interests distorting the content of what they teach	88	47.1	99	52.9

when undertaking their own research project.

On the other hand, 132 (70.6%) of students confirmed that they are not aware of the benefits that the involvement of staff in their subject area(s) in research give them as a student, and 112(59.9%) of the student respondents believe that insufficient attention is given in the subject(s) they study to develop their research skills. In addition slightly above half 107(57.2%) of the respondent students affirmed that they hardly know their lecturers' research interests.

Another issue regarding students' perception of research and teaching link is that instructors' involvement on research may have positive as well as negative perceived impacts on students. For instance, when instructors are involved in research students would benefited because they perceive that their course is up to date and students may develop an interest in the area. To assess students' perception on the positive significance of staff involvement in research students were asked and the result is summarized in the table below.

As it is shown in Table 11, respondent students believe that their instructors involvement in research helped them to increase their understanding of the subject matter 178(95.5%), increased their awareness of methodological issues 167(89.3%), stimulated their interest and enthusiasm for the subject 146 (78.1%), encouraged to take an additional degree in the subject 125(66.8%), increased their awareness of the problems and issues faced by researchers 137(73), and contributed to the development of their research-related skills 168(89.8%).

Staff involvement in research may have a negative impact on the students learning. To investigate the

perception of students on this issue some perceived negative impacts statements were presented and the respondents were requested to show their perception on these statements and the result is presented in the table below.

As it is shown in the above table students believe that staff involvement in research activity has a negative impact on their learning since staff is not available to see them when they need them 122(65.2%), apparent lack of interest by these staff in teaching and facilitating their learning 98(52.4%), and apparent inability by these staff to explain material in ways in which they can understand 125(66.8%).

DISCUSSION

Instructors Practice of Research

It is mentioned in the Ministry of Education Proclamation and the University legislation that the university academic staffs are expected to conduct disciplinary research. However, the findings of this study reveal that instructors are not involved in a research activity. This shows that one of the duties of the academic staff which is recommended in the legislation is not properly implemented. Similarly, the interviewed department heads confirmed that instructors are mostly engaged in teaching and not in research. Furthermore, the university environment is not encouraging for instructors to be engaged in research since there are no research teams at departmental level research seminars and conference at college or faculty level, and as well as no research

publication at college level that can encourage instructors to do research. This finding is consistent with the above finding that reveals instructors are not engaged in research. It is to say that unless there are research teams/groups at the departmental level and research seminar at college level that encourages instructors to conduct research it is impossible to expect instructors to be involved in research. This result is consistent with the research result found by different researchers such as Derebssa(2004), and Adane (2000) since they found out similar result that higher learning institution academic staffs are not involved or their engagement is very low in conducting research which is one responsibilities expected from them.

On the other hand, students are aware of the researches that are conducted at the university, though not to the full extent. They know about the existence of research institutes and unit/centers, research reports produced by the University staff and about notice boards advertising research and postgraduate opportunities, and they are also aware about the research posters/exhibitions/displays within the University. However, they are less aware of the research seminars/conferences and areas within the University with national/international research reputations. The responses of students are somewhat contrary to the responses of the instructors one of the possible reason could be students might consider any research conducted in the university as conducted by their instructors which is not always the case.

Moreover, students' responses on the varieties of researches that are conducted by their instructors show that one out of two students is aware about research activities of their instructors. They are aware of undertaking a research degree (e.g. Masters/PhD/), undertaking funded research, writing for publication, producing creative works embodying original research, and supervising research students. However, they are less aware of about their instructors undertaking non-funded personal research. Though, students response are quite contradictory with the response of the instructors, students might concluded by observing few of their instructors who are attending their PhD through sandwich program or Masters program in their department.

Research Teaching Link

Among the various ways of linking disciplinary research with teaching is involving students in the departmental research project. Since involving students in inquiry, in research is a way of improving their learning, motivating them more. After all, what motivates large number of academics is engaging in the excitement of research. Bringing research and teaching together is a way of enhancing the motivation of both academics and students

(Jenkins et al, 2003).

However, the findings of this study made clear that students are not involved in the departmental research. The limited involvement of students in research is not surprising because as it is seen from the above discussion the instructors themselves are not engaged in research and have no research project at departmental level that the students are expected to be involved in. Similarly, Jenkins et al (2004) also found that students in later years of their study do not feel to be stakeholders in the research of their teachers.

On the other hand, scholars in the field such as Nguyen (2007) argued that it would be beneficial to involve undergraduates in working in research teams with the supervision of academic staff or research assistants. The author also pointed out that when students are actually engaged in constructing interpreting, or disseminating knowledge they are benefited a lot. Such learning by doing approach is an effective way for students to benefit from faculty research (Healey and Roberts, 2004). For example, Magolda (2001) found that students engaged in research based learning develop more sophisticated levels of intellectual development. She sees such research as constructive developments pedagogy in which teachers model the process of constructing knowledge in their discipline, teaches that process to students and gives student opportunities to practice and become proficient at it.

Substantiating the above idea Baldwin (2005) further suggested that by participation in departmental research project students would have the immensely valuable experience of learning on the job with experienced colleagues, and the project would be able to draw on a pool of outstanding talent and one would hope enthusiasm.

On the other hand, though scholars suggest there are various methods of relating research with teaching, the findings of the survey reveal that instructors tried to use only techniques such as building small scale research activities into undergraduate assignments and providing for students a small scale literature review on the courses that they are teaching. On the contrary, they did not tried to use methods such as designing and teaching courses based on their personal research, drawing designing learning activities around contemporary research issues, involving students in departmental research project, and conducting and drawing on research into students learning to make evidence-based decisions about teaching to enhance the link between research and teaching in the courses they are teaching. This result implies that instructors did not use the various methods of enhancing the research and teaching nexus in their courses that they are teaching their undergraduate students.

Nonetheless, Baldwin (2005) stated that the teaching/learning research nexus is built in several ways. Academic staffs based on their personal research, design

courses and learning activities around contemporary research issues, bring in research process together with latest research in the field in to the classroom teaching/learning content for evidence-based decisions; the values of research findings to enhance in the contextual teaching and learning environment, students step by step get familiar with research based learning approaches, ambiguities and mistakes in research, and unconsciously being infused with the university research culture so as to develop their research skills. The benefits students gained are that they become familiar with the nature of research and get to know the new discovery and/or knowledge created (Nguyen, 2007).

It is clear that we are living in fast changing world. In academe what is true today may not be true for tomorrow, now scholars have to come to the agreement that it is not enough to teach the knowledge and skill of a certain discipline but it is a good idea for the students to teach how to learn. In other words, instead of solving a problem for the students to teach how to solve the problem by themselves, that is teaching research skills in every course that we are teaching.

In this regard the results of the study show that instructor did not teach research skills in every course they are teaching. This implies that instructors are teaching simple content knowledge and disregard teaching the most important skill of learning how to learn that may benefit more students after graduation. However, scholars such as Seymaur et al. (2004) strongly suggested that when students are taught research skills in every courses they would get a number of personal and professional gains such as increased confidence and intellectual development in thinking and working like a researcher including improved ability to apply knowledge and skills, development of critical thinking and problem solving skills and more advanced understanding a nature of science/how scientific knowledge is built.

Supporting the above idea Brew (2007) recommended that for the students who are the professionals of the future developing the ability to investigate problems, make judgment on the basis of sound evidence, take decisions on a rational basis and understand what they are doing and why is it vital. Research and inquiry is not just for those who choose to pursue an academic career, it is central to professional life in the 21st c.

On the other hand, students experienced in their three year stay that they are infrequently involved in research. Nevertheless, the most manifest contact with research they identified are: reading a research paper or report written by a member of staff, and undertaking an independent project as a part or whole of a course. Whereas they report having hardly or no experience with activities such as hearing a member of staff discuss their research work in a course, hearing a guest lecturer discuss their research work in a course, and critically examining art/artifacts. This implies that students'

involvement in the research activity throughout their stay in the university is very minimal.

However, Magolda (2001) sees involving students in research and research like activities as supporting them in developing more sophisticated way of knowing/conception of knowledge. In research study of an intensive undergraduate summer research program, she concluded that students who took part in research program become more confidence as learners, more capable of thinking independently. Her research suggested that more complex assumptions of knowledge stemmed from participating in a mentored independent research experience.

Instructors and students Perception

The instructors have no pronounced opinions about the relation between teaching and research. In other words they have some positive perceptions on some of the issues such as on the importance of linking research and teaching for inducting students into their discipline values, practices, and ethics. In addition, the instructors have the opinion that their department has no practices of relating research with teaching, as a result their students have no opportunity to participate in departmental research project as research assistant. On the other hand, they have somewhat negative perception on issues like the practice of connecting research with teaching in their day-to-day teaching activities, on creating awareness of the research activity in the department in different ways and on making deliberate effort to help students feel free part of the research community in the university.

Similarly, students have no pronounced opinions about the relation between teaching and research. In some aspects they have positive perception and on other issues they manifest negative opinions. For instance students responded positively on issues like they have learned a lot when they undertake their own research project and they strongly believe that teaching is effective when the lecturer involves them in aspects of the research process (e.g. a problem solving exercise, or writing a research paper, or giving a presentation based on a research). On the other hand, students hardly know their lecturer's research interest, they believe that insufficient attention is given in the subjects they study to develop their research skill.

Staff involvement in research has positive and negative impacts the positive impacts of staff involvement in research are: respondent students believe that their instructors involvement in research helped them to increase their understanding of the subject matter; increased their awareness of methodological issues; stimulated their interest and enthusiasm for the subject; encouraged to take an additional degree in the subject; increased their awareness of the problems and issues faced by researchers and contributed to the development

of my research-related skills.

Staff research brought tangible benefit to students, mainly because students perceived that their course was up-to-date and that staff demonstrated interest in what they were studying. Also, staff research interest gives students the opportunity to see their teachers as real people and to be able to glimpse what they do, how and why (Neumann, 1994). Similarly, Brew (2006) added that students who perceive staff members' involvement in research as being incorporated into their teaching tended to see their course as current and as stimulating intellectual excitement.

On the other hand, the negative impacts of staff research on students learning are: not available to see the when they need them; apparent lack of interest by these staff in teaching and facilitating their learning and apparent inability by these staff to explain material in ways in which they can understand. This result is consistent with the research result of Healey, (2005) that noted among students negative attitudes towards the research of their instructors. Students have pointed to staff lack of availability, undue influence of staff research in the curriculum, and importantly, feelings of being excluded from the research culture of their institutions.

CONCLUSIONS

The findings of this study give insight on the status of the link between research and teaching. It shows that instructors are not either involved in disciplinary research nor they use various methods of linking research with teaching. Likewise, in the departments and colleges there are no suitable conditions for instructors to conduct disciplinary research. Accordingly, students have no experience of involvement in research in their stay except doing independent assignment and reading research paper or report written by their instructors. In addition, the research findings highlighted that both instructors and students have no pronounced opinion about the link between teaching and research. Finally, it made clear that staff involvement in research have both negative and positive impacts.

RECOMMENDATIONS

Based on the finding of the study, so as to enhance students learning by linking research and teaching, the departments, colleges and the university heads in general should encourage the instructors through reducing the teaching load, providing different materials that are necessary, designing an incentive for those who conduct research and providing refreshment training on conducting research. They should also facilitate conditions and create conducive situation for academic staff to undertake research as well as create a kind of

system that motivate and encourage staff to be engaged in undertaking research. On the other hand, instructors are the main agents for the enhancement of students learning; as a result they should use different methods that would engage students in research activities during planning of their course, in teaching learning, and in assessing their students. Moreover, they should give an opportunity for the students to be involved in a research project of the department and exposed to various research activities to develop their research skill.

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