

# **RESEARCH ENHANCED LEARNING AND TEACHING APPROACH: AN IMPLICATION FOR UNDERGRADUATE RESEARCH IN NIGERIA**

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## **Abstract**

The paper reviewed the declining trends of research in both quality and quantity in Nigerian higher institutions of learning. Some of their causes were highlighted . The authors of the paper advocated the use of “Research Enhanced Learning and Teaching (RELT)” approach as a panacea to solving the problem, and as a means of cultivating research culture among undergraduate students thereby encouraging them to take careers in advanced research. The concept, benefits, strategies for implementation and managing of RELT were highlighted. Some of the recommendations made include that lecturers should encourage their students to develop interest in research by introducing them to the types of research in their disciplines, sharing their own research findings with them and collaborating with them in conducting researches. There is also the need to revisit the place of research in Nigerian higher educational institutions curriculum and lay more emphasis on it.

**Key words:** Research, quality, learning, Teaching, higher education,

The improvement of teaching and learning is a dynamic and ongoing process, just as is research in education and any other field (Centre for the Integration of Research, Teaching, & Learning) (CIRTL) (n.d). “Educational research can be regarded as activity designed to evolve theories guiding the principle and practice of education” (Ahmed, n.d p.1). The need to carry out investigations and evolve new theories is one of the most fundamental functions of the corps of intelligentsia of a particular society. This is because no society can develop without having its people involved in seeking new knowledge; and knowledge is usually obtained through investigation. Special attention has been paid to research and documentation by countries that are eager to develop technologically and educationally. Countries like Japan, America and USSR have engaged in researches at various level to achieve a breakthrough and have become models to other countries.

Yusuf (2012) pointed out that teaching, research and community service constitute the main functions of institution of higher learning:

“The National Policy on Education (NPE) (1977, 1981, 1990, 1998, 2004), the National Policy on Science and Technology (NPST) (1986, 1999, 2003) and all subsequent related policy documents have placed emphasis on research as an integral part of Nigeria’s national planning”, (Yusuf, 2012: p.321).

However, Yusuf (2012) pointed out that many believe that Nigeria’s institutions of higher learning are very much left behind in the area of research and development; there is inadequacy of qualified research personnel, general lack of research focus and poor linkage between researchers and the industrial sector. Bako (2005) in Yusuf (2012) pointed that decline of research in Nigerian Universities was believed to have started from the late 1980s. He reported that, for instance, Nigeria’s total number of scientific publications in 1981 was 1062, and that the number dropped to 711 in 1995. This is in contrast to scientific publications from South Africa which stood at 3,413, India -14,883 and Brazil - 5,440 in the same year. By 1996 the quality and the quantity of research in Nigeria showed serious signs of decline.(Okebukola and Solowu, 2001). Okafor (2011) in a research conducted in six Federal Universities in Southern Nigeria on comparative analysis of research output for the period between 1997 and 2006 based on both local and international publications found that the highest research output of 12.17 publications per head was obtained in only one of the six Universities. This translates to only about 1 publication per academic staff per year. This is just to talk on quantity not quality.

The quality of a research determines its usefulness and contribution to the body of knowledge. For instance, Bogoro (2015) lamented that many institutions in Nigeria cannot access research grants from the Tertiary Education Trust Fund (TETFund) because of poor proposal writing and this is also the case in some of the nation’s centres of excellence or specialized research institutions. He went ahead to state that in the last

one year, from more than 200 Universities and Polytechnics in the country, only 55 proposals were submitted to access national research fund. Also, after serious advocacy by the TETFund, only 879 proposals were submitted by the tertiary institutions but their quality remained low. Bogoro (2015) stated that lack of research in most tertiary institutions in the country is responsible for the decline in educational development, stressing that it is impossible for higher educational institutions to succeed with inadequate funding, too much emphasis on teaching and less research.

The culture of research is almost absent in Nigerian higher educational institutions; the very few conducted are usually undertaken for the sake of getting promotions. Such researches only accomplish not more than the purpose for which they were meant for. This is posited by Yusuf (2012) where he mentioned that by orientation, content and primary intent, the bulk of research going on in our Universities and Colleges at present is neither related to nor determined by the demand and priority of the Nigerian society and therefore cannot be relied upon for achieving Nigeria's overall objectives.

The general attitude of lecturers and their students in the nation's higher educational institutes towards research is not encouraging. This was noted by Ahmed (n.d, p3) who lamented thus: "Considering the number of Universities in Nigeria and considering the yearning needs of Nigeria as a developing country eager for rapid industrialization, research in Education does not seem to have progressed fast enough". Many final year students in Nigerian institutions usually battle to come up with a topic for their final year projects, and in most cases the topics are repeated and tend to take one direction – survey in nature. They find it difficult to progress and bring out something tangible as they tend to copy from the past project reports. These students graduate and some of them come back as lecturers in the institutions of learning without having the basics of how to conduct a research.

In an attempt to address the situation, many researchers have identified problems militating against scientific and educational research in Nigeria. For instance, Ahmed (n.d) identified the following; complete absence of clear cut philosophy of national development – a philosophy which should spell out the direction in which Nigeria wants to channel its development efforts, the resources available for research are grossly inadequate, gross shortage of equipment, short period of time for research – especially for final year students etc. Yusuf (2012) on the other hand attributed the decline in research productivity in Nigerian University system to the following constraints: poor and irregular funding, declining research infrastructure, poor research motivation, rising workloads associated with deteriorating staff/student ratio, which leave little time for research, Lack of research skills in modern methods and inadequate research personnel.

However, going by the curriculum settings, it is evident that the curriculum does not allow for the training of vibrant researchers from the institutions of higher learning. In the curriculum, research courses are usually introduced in the second year in Colleges

of Education and third year in Universities – that is just one year before the students carry out their final year project. In most cases the students separate what they learnt in the previous session from the final year project they undertake. This could be why they may find it difficult to write their final year project reports effectively and also develop the necessary skills required to become good researchers.

Unless more efforts are put in at the grass roots, the quantity and the quality of researches from the nation's higher institutions will remain very low. As pointed by Bogoro (2015:12). "We must improve people's capacity to write qualitative and winning proposals, otherwise we are not advancing."

"Higher education is moving from an emphasis on the acquisition of knowledge and skills to becoming; that is, the student becoming a graduate who has knowledge, skills and professional capabilities." (Homewood, Rigby, Brew & Rowe, 2011:1); since teaching and research are complementary elements of the learning process that inform and enrich one another (Dodge, 2003).

It is against this backdrop that the writers of this paper deem it is necessary for educational policy makers to review higher education curriculum to become one that will guide students through research and give them an increased awareness of its importance, to enhance their employability as well as their potential to progress to higher degree of research. This paper advocates "Research Enhanced Learning and Teaching" approach, as a means of producing graduates who are creative, resourceful and capable of undertaking research at higher levels.

### **What is Research Enhanced Learning and Teaching**

"Research enhanced learning and teaching (RELT) is a complex notion, and consequently is based on different understandings and practices across disciplines, institutions and countries. In its basic meaning, it is the bringing together of research and teaching with the aim of enhancing student engagement and learning." (Homewood, Rigby, Brew & Rowe, 2011, p 6).

Exposing students to research also teaches them how knowledge is acquired and created. "Teachers can influence and affect a large number of students in tremendously positive ways. Indeed, giving students the thirst for knowledge to the point that they want to not just consume existing knowledge, but make discoveries themselves is a unique opportunity that educators have. And, certainly, developing smart young students into the researchers of current and future generations is yet another way that our efforts in the classroom can pay long-term dividends for research." (Feamster, 2013). RELT provides students with an opportunity to develop skills required to become creative, innovative and thus, acquire potentialities for good research writing.

The aim of RELT is to guide students through research and to give them an increased awareness of its importance, to enhance their employability as well as their

potential to progress to higher degree research (Homewood, Rigby, Brew & Rowe, 2011).

They pointed that RELT involves shifting some of the focus on research from academics and postgraduate students to undergraduate student learners.. In this, undergraduate students will have chance to get involved in research right from the very first year.

### **Benefits of Research Enhanced Learning and Teaching**

Melicher in Dodge,( 2003) pointed out that having teams of students doing applied research provides them not only with professional skills, but also with social skills and critical-thinking skills. Camley in Dodge, (2003) noted that teaching can sometimes enhance research. He cited a situation in which he hit an obstacle in a research project, but while discussing the subject with students in class, it occurred to him that the lesson he was teaching could help him solve his research problem. Thus, incorporating research problems into teaching and learning could avail one with the opportunity to have students' contribution and at the same time develop his students in research conduction.

Homewood, Rigby, Brew & Rowe, (2011) listed some of the benefits of students participation in research and inquiry tasks thus:

- Development of research skills: bibliographical searching, framing a research question, organisation of data, experimental skills, interpretation and analysis of data, use and understanding of primary and secondary sources.
- Opportunity to learn in a collaborative group setting
- Improvement of self-regulated and self-directed learning as students become more familiar and comfortable with research processes
- Fostering of deeper approaches to learning
- Opportunity to collaborate with academics
- Contribution to building on existing knowledge and participation in a community of practice
- Personal and professional gains: graduate capability development, self-confidence, critical thinking, a commitment to lifelong learning, experience with teamwork, communication skills, and better understanding of how knowledge is constructed, conveyed and contested
- Greater likelihood of pursuing higher degree research
- Career clarification and preparation
- Improvement in undergraduate retention rates and progression, with the greatest improvements for low-achieving students from disadvantaged backgrounds.

### **Strategies for engaging Students in RELT**

To encourage students to pursue postgraduate research or to prepare them for future professional work, the students should be involved in the research process so as to

acquire practical experience in developing and understanding a piece of research (Homewood, Rigby, Brew & Rowe, 2011). They outlined the four categories of linking teaching and research as developed by Robertson and Blackler (2006). The categories are shown in the figure below;

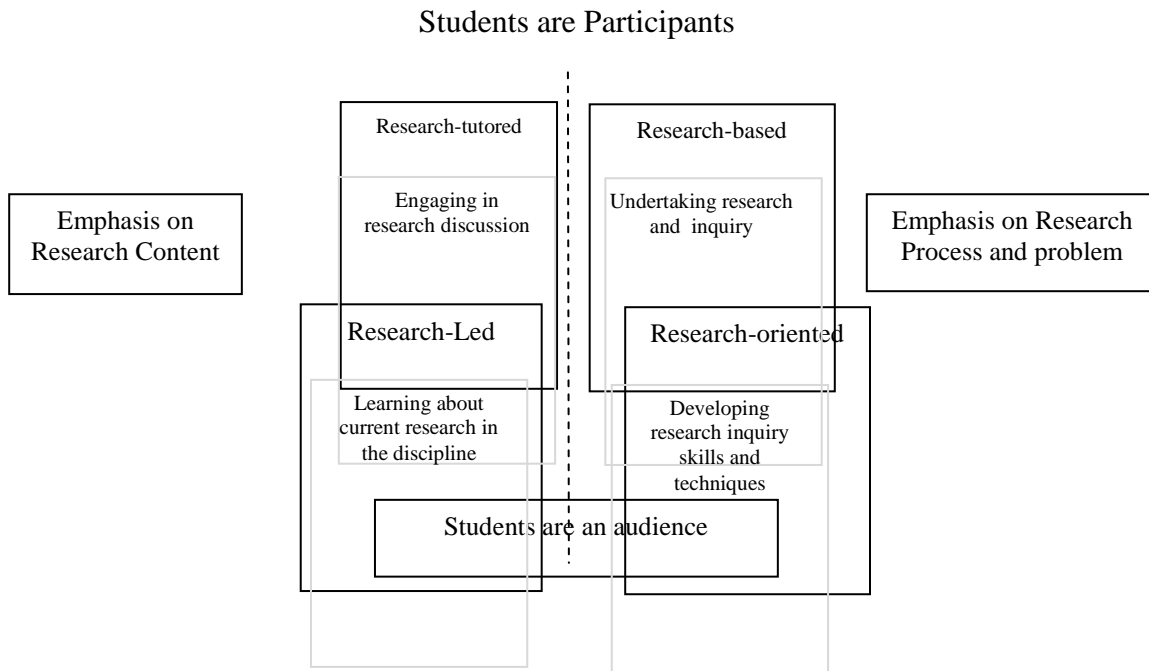


Figure 1: Diagram showing categories of linking teaching and research (Robertson and Blackler, 2006)

The teacher/lecturer can select the best way to engage his students depending on the culture of his discipline, and his own conception of research. He may decide whether the students will be active participants; doing the actual aspect of the research, in which they interact with the real materials or whether they will be the audience.

(Homewood, Rigby, Brew & Rowe, 2011) gave some guiding questions, the answers to which can be deduced from the figure above, RELT :

1. What is my conception of research, teaching, knowledge and scholarship?
2. How appropriate is RELT for my students and their level?
3. Do I use disciplinary research and scholarship when preparing teaching materials?

4. Are my students an audience for research, or are they actively engaged in research activity, or both?

5. Is the teaching emphasis on the content of the research, the processes of research, or both?

6. How accessible to students is the research carried out in my Department? For example, do students know about publications in scholarly journals or other researches; are they invited to departmental colloquia or seminars;

RELT can be used in different disciplines where undergraduate students can become assistants in research teams and engage in research that forms part of larger projects in the field or in the lab. Students can form journal or other primary source reading clubs, present their work at student conferences or in journals, and analyse scholarly research output.

### **Managing Research Enhanced Learning and Teaching**

According to proponents of RELT, one can involve his students in research and inquiry from the first year of study. They opined that; this is a significant time, as it forms a transition both socially and academically and can establish patterns for the rest of the course. Even in their first year, the students can be involved in researches, research selection of tasks for an assessment, or exploring how academics generate research topics in particular disciplines. Students should be guided to develop their own research techniques and methodologies in a particular unit of their courses. They should also be encouraged to develop the ability to deal with the complexity and ambiguity of knowledge generation. Students should be engaged through collaborative research groups and peer review.

Different kinds of RELT for students can be demonstrated using the pyramid below;

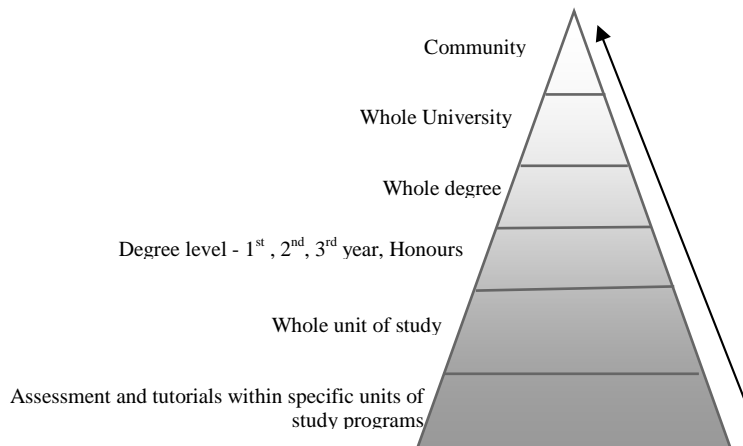


Figure 2: Undergraduate Research implementation Pyramid (adapted from LEAD Booklet, 2011, p9)

As described by Homewood, Rigby, Brew & Rowe, (2011), individual teachers can start at the bottom level (Assessment and tutorials). RELT and learning task can easily be integrated into the curriculum and aligned with the unit's learning outcomes, graduate attributes and assessments of achievement and learning.

As one progresses upwards, more students and/or staff become involved. This will require more coordination and collaboration across the Department, Faculty, and University. Scholarship schemes might be within or outside the institution.

### **Conclusion**

This paper addressed the drop in both quality and quantity of research in Nigeria. This problem can be attributed to non-integration of teaching and research, in both conduct and dissemination in higher institutions of learning. This leaves the undergraduate students with little information on research. Students are not exposed to research at the early stage of their undergraduate studies which results to producing students who cannot progress in the area of research or conduct vibrant research that may bring about development. Finally, "Research Enhanced Learning and Teaching" approach was looked into, as a way of improving the potentialities of undergraduate students in research conduction.

### **Recommendations**

The following recommendations are hereby offered:

1. There is need for revisiting the place of research in the nation's higher educational institutions curriculum with a view to integrating research and teaching.
2. Lecturers should encourage their students to develop interest in research by introducing them to the types of research in their discipline, sharing their own research findings with them and collaborating with them in conducting research projects.
3. Students should be encouraged to carry out researches on their own in order to become used to it right from the early stage of the undergraduate studies.
4. Students should be introduced to different journals of research in their discipline as early as possible.
5. Research and teaching should not be divorced because they are complimentary to each other.
6. There is need to face research with rigorous effort in higher institutions.
7. Researches should be focused on the current problems facing society to permit the researchers see the immediate effect of what they have done.



8. Different forms of research should be encouraged in all disciplines to allow researchers handle problems from different angle.

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