AN EMPIRICAL INTERROGATION OF INSTITUTIONAL NORMS AND PATTERNS IN UNDERGRADUATE RESEARCH

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Abstract:

The study evolved through an empirical observation of how undergraduate research is practiced at the Redeemer' University (Redeemer's), Nigeria. The institutionalization process framework advanced by Farashahi, Hafsi and Molz (2005) was then used to empirically interrogate how actors that are involved in undergraduate research through various taken-for-granted actions play out the processes of institutionalizing undergraduate research norms and pattern in the Redeemer's. The study is a longitudinal and an interpretive study that adopted the traditional ethnography research methodology which informed its triangulation of three data collection techniques namely, ethnographic observation, interview and questionnaire. The data collection techniques generated qualitative and descriptive statistical data that was used to observe the institutionalization of undergraduate research process (that is, research administration at the College and Departmental levels, research objective setting and research topic selection approaches at the students level) at three stages-externalization, objectivation and internalization. The finding shows that there are evolving institutionalization of undergraduate research norms and patterns at the Redeemer's. Recommendations were provided on the reasons why the emerging institutionalization of undergraduate research norms and patterns need to be formalized and adopted as source of knowledge for regulating research at the Redeemer's.

Key Words: Institutionalization process, undergraduate research, undergraduate research norms and patterns, Redeemer's University

Introduction

Teaching research methodology is pedagogy on its own right (Feuer, Towne and Shavelson, 2002). Hence, every academic field of study pays very good attention to designing and implementing research methodology curriculum that is adequate and appropriate for transferring its research culture into its up coming members (Scott, Miller and Lloyd, 2006; Pratt, Margaritis and Coy, 1999; DaHaven, Wilson and O'Connor-Kettlestring, 1998). The socialization process leading to the inculcation of research skills into undergraduate students is very vital and requires that it should be carefully implemented and monitored. This is fundamental because it is made up of socially constructed meanings which may differ in different academic and/or practical contexts. This makes teaching undergraduate students the skills required to be able to maneuver through the natural and social landscape where research phenomena are interrogated a complex task (Jarvinen, 2000; Fitzgerald and Howcroft, 1988). The consequence of this is that high ranking universities are believed to be those that have instituted a good research culture across various levels of their education, beginning from undergraduate research through postgraduate research to post doctorial research and faculty research (Garde-Hansen and Calvert, 2007; Morrison, Oladunjoye and Onyefulu, 2007; Merkel, 2001). While much has been done at postgraduate level leading to consensus about what higher degree research should be, very little consensus has been reached regarding the importance of undergraduate research and how it can be institutionalized.

For example, Hunter, Laursen and Seymour (2007) carried out a study which revealed that research carried out by undergraduate research students impact on their cognitive, personal and professional development. In another instance, Leckie (1996) did a study to assess how undergraduate students involved in research approach information resources domiciled in the library and the role information retrieval skill education play in enabling undergraduate students doing

research to be able to access required literature they need for their citations. In the end of his study one of Leckie's conclusions is that academic fields should try and develop teaching programs through which undergraduate students can acquire required information retrieval skills as part of the research skills they must cultivate. It has however, since been proven that such information retrieval skills are not only useful for research, but also vital to operating in the world of work that is evident in the information age (Lloyd, 2010; Lloyd, 2004; Bruce, 1999). However, some scholars have expressed conflicting views about research in the university context. This group of scholars sees undergraduate research as conflicting and hampering the level of teaching undergraduate education requires (Marsh and Hattie, 2002; Milem, Berger and Day, 2001; Cooke, 1998; Johnston, 1996; Barnett, 1992; Ramsden and Moses, 1992; Sample 1972). Scholars who tried to find out why there are conflicting views regarding the role research and teaching play in universities pointed to the confusing conceptualization of the concepts of research and teaching among affected scholars. They argued that this confusion influence the ways some scholars judge how research and teaching can complement each other (Brew, 2002; Hattie and Marsh, 1996; Brew and Boud, 1995).

Despite this seeming confusion inherent in the ways scholars conceptualize research and teaching some of them have argued that research and teaching are complimentary, by pointing to the fact that research has shown that lecturers learn and improve on their teaching techniques and course contents through their research (Centra, 1983; Bretton, 1979; Rowland, 1996; Jenkins, 2000; Zamorski, 2002). This is also synonymous to the argument that students learn more practically and interdependently through their participation in undergraduate research. This is more so if we take research to include independent learning activities such as the project based learning which do not compulsorily lead to the writing of a method based monograph (Utulu and Alonge, 2012; Hunter, *et al.,* 2007). Irrespective of how the relationship between research and teaching is viewed most universities have maintained the culture of placing research on a high pedestal and thereby invest considerable amount of human, time and money resources on it. While the resources invested into research differ at varying level of research in a university, the attention paid to research and how it is practiced also differ. Most universities pay very little attention to research at the undergraduate level despite the fact that undergraduate students are required to carry out independent study in a research project form and report them in the form of monographs before graduation (Garde-Hansen and Calvert, 2007; Morrison, Oladunjoye and Onyefulu, 2007).

Intrinsically, independent research project are required to be completed by undergraduate students before graduation in Nigerian universities, which makes it worrisome when observation shows that some universities in Nigeria, especially privately owned universities, do not pay required level of attention to undergraduate research despite the existence of studies by Garde-Hansen and Calvert (2007) and Feuer, *et al.* (2002) which highlighted the dangers associated with such as a neglect. This research was therefore carried out to point out to the case study university and other universities that share the same characteristics with the case study university that despite the fact that they feel that undergraduate research is a minor academic endeavor that the processes that comprise undergraduate research may develop into patterns and norms which may unconsciously become institutionalized. The consequence of this is that such unconsciously institutionalized norms and patterns could unknowingly become the bed rock of the research foundation which undergraduate researchers take into their postgraduate research life. This scenario could have diverse effect on their ability to do research if such norms and patterns are not good enough and not quickly deconstructed. Hence, the objectives of the research reported in this paper are to find out if there are norms and patterns in undergraduate research at the Redeemer's University (Redeemer's), Nigeria; determine if the norms and patterns have emerged into institutional norms and patterns at Redeemer's; and to come up with a model that will explicate the social reality constructed by emerging undergraduate research norms and patterns in Redeemer's. In order to be able to achieve these object we set the following research questions: are there norms and patterns in the practice of undergraduate research at the Redeemer's, and are the norms and patterns detected emerging into institutionalized research norms and patterns at Redeemer's? The researcher hope that ones the research questions are appropriately answered that the research would have contributed to knowledge in two ways. First, it is a theory building paper that aims to develop a theoretical framework which schools, colleges, faculties, departments and small sized universities can use to assess the emergence of norms and patterns in the

practice of undergraduate research. Secondly, it has practical relevance to the Redeemer's based on the fact that its finding will help it to understand emerging institutionalized norms and patterns in its undergraduate research after existing as a university for eight years.

Research Problem

Reality is socially constructed. However, it is always quite possible for a socially constructed reality to be wrong. Despite the fact that social reality has been presented as both subjective and objective, and its meaning derived from consensus, it can however, be wrongly judged. The fact that university communities know this has endeared them to always assess through institutionalized research culture, the nature of natural and social realities which people live in. Universities however, sometimes take for granted the institutionalized norms and patterns which evolve over time, and which guide their actions and the ways they carry out research. This kind of carelessness towards the assessment of institutional norms and patterns is getting profound in universities as exemplified by the low frequency of the check of how research norms and patterns are instituted within it. Most times this kind of check are left in the hands of academic fields which in most cases lead to academic field based institutionalized research norm and pattern assessment. We assumed that if care is not taken that this may lead universities into situations in which they will lack adequate and appropriate knowledge of the norms and patterns institutionalized in them. At Redeemer's there is a high expectation among academic staff because of its newly approved postgraduate programs. While much has been said about how the new postgraduate programs will lead to greater research activities, little has been said about the need to assess its evolving research norms and patterns and how they have been institutionalized at the undergraduate level. This is irrespective of the fact that such an assessment can provide very vital information that is required to fix loose ends regarding the setting of research objectives, policy formulation and administration of research in the university across all levels of research. We also know that this kind of assessment can provide information regarding emerging institutional norms and patterns of research that are vital to interpreting the research culture peculiar to the university. This particular problem of lack of interest and information on prevailing research culture which is expressed in the form of norms and patterns of undergraduate research led to this particular research. It is hoped that the research will provide required information about the research culture peculiar to Redeemer's as a first step to solving the problem and as a second step develop a framework which can be used by Redeemer's and other universities that share its characteristics to asses the social realities that have been constructed in them based on the years of undergraduate research they have been involve in.

Theoretical Framework

Institutionalization Theory

Institutionalization theory is one of the body of theories that focus on how organizational actions are institutionalized, that is, taken-for-granted part of everyday life of actors within an organization. In trying to provide the institutional context through which institutionalization theory evolved Schneiberg and Soule (2005) pointed to Selzinick's (1957) and Berger and Luckmann's (1967) classic work that proved the basis for using institutionalization theory as a critical agenda for sociologist and social constructionists. As a result, sociologies such as Meer and Rowan (1977) argued on how "formal structures [which may lead to institutionalization] of many organizations in post industrial society…dramatically reflect the myths of their institutional environments instead of their work activities (p. 341)." This kind of questioning of formal structures and their conformity with real work activities gave background credence to research carried out to assess how work activities emanate into norms and patterns through the institutionalization process. Jacobs' (2002) work however, argued for the use of institutionalization to support organizational change initiatives which are deliberately initiated in an organization. According to Jacobs, if institutionalizing organizational change is combined with cascade training there is likely going to be an assurance that employee competence required to implement the organizational change initiative will be ensured.

Zucker (1977) in an earlier study have made claims of the role of institutionalization in ensuring cultural persistence in organizations. Using explanation found in the ethnomethodological approach to institutionalization, namely, objective-potentially repeatable by other actors without change in meaning- and exterior-intersubjectively defined so they can be viewed as part of external reality

and three levels of institutionalization created in the autokinetic situation, his findings provide strong support for the predictions that the degree of institutionalization, the greater the generational uniformity, maintenance and resistance to change of cultural understandings. This study extended the basis for asking questions about the role of institutionalization in implementing cultural changes in organizations and can also provide strong warrant for developing assumptions about the importance of institutionalization in the development of viable organizational processes and practices, including in universities as seen in later studies. Lawrence, Winn and Jennings' (2001) stud pointed to how pace and stability within an organization seeking to institutionalize certain practices can support the institutionalization process based on four mechanisms-influence, force, discipline, and domination. Intrinsically, these four mechanism play out in organizational actions either deliberately or otherwise. Ever since the early period reflected in Selzinick (1957) and Berger and Luckmann (1967) scholars which we may term as social constructionists such as Reyna (2005) have adopted the institutionalization theory to assess the institutionalization process of social sciences in Mexico; paying attention to how the relationship between the state and social science institutions in Mexico ma have influenced the institutionalization process of social sciences in the country.

Erno-Kjolnede (2000) borrowing from the Mertonia ethos of science related the discussion of scientific norms to the discussion of research management and policy to provide information on how Danish academic institutions are undergoing significant changes. The issue of institutionalization has found a place in academic interrogation of cultural aspects of university life across diverse societies, either within regards to administration and management or with regards to teaching research and learning. For instance, Lozano (2006) elaborated on how sustainable development can be incorporated and institutionalized into university policies, education, research, outreach and campus operations as a way of making it a core part of university culture. Farashahi, *et al.* (2005) did a 20 years systematic literature review of research grounded in institutional theory and found out that empirical research is well behind changes in social realities which may have been as a result of institutionalized process of research in academic institutions and the difficulty scholars face when trying to move out of established models and practices. Scholars such Hunter *et al.* (2006), Feuer, *et al.* (2002) and Garde-Hansen (2007) carried out studies about cultural aspects of research in universities and how the were institutionalized, even though these authors did not explicitly refer to the taken-for-granted process involved in teaching, learning and research in universities as institutionalized processes. According to Farashahi *et al.* (2005) applying the "perspective [a theory introduced by a scholar] repeatedly and giving them similar interpretations over time can be considered as an institutionalization process of creating knowledge (p. 2)." This process involves three stages of externalization, obejectivation and internalization (Berger and Luckmann, 1966) which Farashahi and his colleagues argued that lead to the process of institutionalization of research practices which is comprised of three characteristics namely, cognition, diffusion and legitimization.

This particular study draws from Farashahi *et al.* (2005) institutionalization process which evolved from the use in the literature of institutionalization theory to evaluate research activities in universities. We present the Figure below showing Farashahi *et al.* (2005) description of the institutional process framework which we adopted to interrogate our empirical observation about the possibility of having an emerging institutionalization of undergraduate research norms and patterns at the Redeemer's.

Figure 1: Farashahi, Hafsi and Molz (2005) Institutionalization Process Framework Model

Assumption

There is likely going to be an emerging institutionalization of undergraduate research norms and patterns at the Redeemer's University considering the fact that undergraduate students are taught how to do research through various research methodology courses and because they are obliged to carryout independent research studies before graduation.

Research Design

The study is inductive, longitudinal, and interpretive study that adopted traditional ethnographic research method. By indicating that the study is inductive we mean that the study set out from specific theorization (institutional process framework) to formal theory development (research norms and patterns in Redeemer's). We seek to move from institutional process framework to a framework on undergraduate research norms and patterns in Redeemer's which will be useful in providing the basses for the assessment of undergraduate research norms and patterns formation. This study is longitudinal because of the time framework within which the ethnographic observation and data collection were completed. In other words, ethnographic observation and data collection completed in two academic sessions. The study is interpretive because of the world view which the researchers adopted to view both the empirical research context phenomenon. As a result, we approached this research with the belief that reality is socially constructed and that knowledge is subjective. This endeared our adoption of the traditional ethnographic research method which facilitated direct observation of the research phenomenon within the research context, and hence, helped the researchers to determine the questions that formed the nucleus of the interview done with senior academic staff of the Redeemer's and the variables that made up the questionnaire items.

Meyers (1999) defined ethnography research method as a research method that permits the researcher to emerse himself in the life of the people he is studying and seeks to place the phenomenon understudy in the social and cultural context of the people understudy. Traditional ethnography is taking a ethic (ethno) snapshot (graphy) thawt is studying cultures and elements of culture in the society where the culture is emitted. Wilcox (2008) suggested that ethnography research deals with employing direct, real-world observation, spending significant amount of time in the environment where the research phenomenon takes place and carefully considering the context in which the research phenomenon takes place. He listed six factors that must be carefully considered during an ethnographic research design that will ensure its reliability and validity:

1. Carefully choosing the sample, based on prior knowledge.
2. Using measurement whenever possible.
3. Engaging in cyclical hypothesis testing.
4. Using video as tool to obtain objective data
5. Using covering methods.
6. Finding face value.

We carefully chose Redeemer's as the sample university because of our prior knowledge of the university as staff of the university which led to the empirical observation interrogated in this study. We chose to use interview and questionnaire as a possible measurement tool for deriving the existence of undergraduate research norms and patterns at Redeemer's. In the beginning of our observation we concentrated on formal norms-externalization, objectivation and internalization-derived from the literature (Farashashi, *et al.,* 2005), however, we adopted cyclical hypothesis testing which allowed us to observe relationships, influences, patterns, etc. which informed our coming up with the actor variable. Engaging in cyclical hypotheses helped us to reach the conclusion on our derivation of undergraduate research norms and patterns framework which is the reason why we claim that our study is a theory development study. We used interview that lasted between 20 and 45 minutes to achieve the use of covering methods. It helped us to assess consistency between answers and questions and to observe verbal and behavioural data which we used to check consistency across all the academic fields in the case study university. The ethnography research reported in this paper is a single site study; however, we used both interview and questionnaire to ensure consistency of data. We developed our questions along the same themes and allowed responses to lead to other questions while we focused on the main objective of eliciting data on undergraduate research norms. In conclusion, having adopted five of the six requirements for validity proposed by Wilcox (2008), we felt that the validity of this study may not be in question.

Data Collection

Data for the study was collected in three ways namely, ethnographic observation, interview with senior academic staff and questionnaire that elicited data on undergraduate researchers' demography, research objectives and research approaches. We deliberately triangulated the three data collection technique to increase the validity of the research (LeCompte and Goetz, 1982). However, ethnographic observations were carried out in classrooms and lecturer offices during teaching of research methodology courses and consultation with undergraduate student researcher. Unstructured interview was used to collect data from six professors regarding undergraduate research objectives, teaching and administration. Three hundred copies of a self-designed questionnaire were administered to elicit data regarding demographic data, research objectives and the research approach from final year undergraduate research students during the 2011/2012 and 2012/2013 academic sessions. The questionnaire copies were administered two months after the undergraduate students have had their proposals approved and have formally started their research projects during each of the sessions under evaluation. Two hundred and seventy seven copies were found useful after thorough scrutiny of the appropriateness of the ways respondents completed them and were analyzed using descriptive statistics simple percentage scores. The researchers used the data elicited from the undergraduate student researchers to determine their research objectives and approaches. The questionnaire was adopted by the researchers as data collection instrument in place of interview because it was adequate enough to elicit the required information on undergraduate research patterns at Redeemer's and because it allowed more undergraduate research students to participate in the research. The high number of undergraduate research students that participated in the research due to our use of the questionnaire was useful for validating the undergraduate research patterns that were emerging at Redeemer's.

Research Findings

Description of Respondents' Demography

Five of the six professors are senior professors, while one is an associate professor (reader). All of them have had international research experiences by publishing in international journals or by research collaboration or by working as faculties in foreign universities. They have also taught at the undergraduate level and have been involved in research administration and supervision in at least two different higher institutions. As of the time of the interview three of the professors interviewed were Deans, while three were Heads of Department (HOD). One of the three HODs has also served as Dean at Redeemer's. This translates to the fact that interviews were conducted with professors in the humanities, social sciences, management science and natural sciences. We used this selection to achieve heterogeneity that is required for ethnographic research.

The undergraduate students who responded to the questionnaire were in two categories: those who did their undergraduate research in 2011/2012 and those who did their undergraduate research in 2012/2013 sessions. Those who did their undergraduate research in 2011/2012 session graduated in June 2012 after they had submitted their research project monograph, while those who did their undergraduate research in 2012/2013 session will graduate in June 2013. However, of the 277 undergraduate research students that participated in the study 137 (49.5 %) were in the 2011/2012 session while 140 (50.5 %) are in the 2012/2013 session. We reported other demographic details of the respondents without recourse to the session because a cross tabulation analysis we carried out did not show any variance in their demography that require its separation. Hence, the respondents were made up of 103 (37.2 %) males and 174 (62.8 %) females, with the following age ranges: 101 (36.5 %) were 18-20 years, 140 (50.5 %) were 21-23 years, 332 (11.6 %) were 24-27 years while only 3 (01.1 %) were above 27 years. We observed that the trend that occurred regarding age ranges (which we considered very young) of private university students in a study involving private universities (Utulu and Alonge, 2012) repeated itself. It may look unusual to have 101 (36.5 %) of 277 (100.0 %) sampled final year undergraduate students to be between the age range of 18-20 years having spent about four years in the university. This may mean that this group started university education at around fifteen years of age. This trend is pointing to the need for a demographic study of private university students in Nigeria in order to be able to categorically give a clear picture of a possible change in age ranges of university students in the country.

However, 141 (50.9 %) of the respondents reported that the academic field where they carried out their research is in the management sciences. About 52 (18.8 %) reported that their area of research is in the humanities, 47 (17.0 %) reported that their area of research is in the natural sciences, while 36 (13.0 %) reported that their area of research is in the social sciences. These data are influenced by the fact that there are three colleges (Humanities, Natural Sciences and Management) at the Redeemer's, of which management sciences account for more than half of the students population. The data provided by the respondents on their publication history show that only nine (3.2) of them have published at least once, another nine (3.2 %) have their write ups under review, while only four (1.4 %) indicated that they do not know that they can be involved in academic publishing. However, 250 (90.3 %) of them indicated that they have not been involved in academic publishing even though they were aware that they can be involved in academic publishing. These data is significant in two ways, first, it provides an avenue to assess the extent to which the Redeemer's have been able to expose and create awareness in its undergraduate students about what academics entails. It also allowed the researchers to see if there will be any exceptional cases of active participation in academic publishing since at undergraduate level students are not expected to be involved in publishing. The fact that four (1.4 %) indicated that they have published and another four (1.4 %) indicated that they have their works under review justifies that our suspicion that there may be some exceptions in Redeemer's undergraduate research activities plays out in reality. Since the scope of this research did not cover scrutinizing the sources where those undergraduate research students that claimed that they are involved in academic publishing published their works, the researchers therefore did not carry out an investigation of the sources.

Research Topic Selection Approaches

Five statements were provided as an explanation of possible research objectives which may drive undergraduate researchers' research endeavours. We assumed that responses provided on research objectives can provide information about research patterns if majority of the undergraduate researchers evaluated tend to be driven by specific forms of objectives. Data is provided in the Table below:

Table 1: Undergraduate Researchers' Research Objectives

Statement of Objectives	Yes		No	
	No.	%	No.	%
Raise a question that is persisting in my academic field of study	35	12.6	242	87.4
Raise a question that is persisting in my academic field of study and provide answer to it	39	14.1	238	85.9
Answer a question that will solve a persisting problem in my academic field of study	15	5.4	262	94.6
Confirm an already known truth about a persisting phenomenon in my academic field of study	31	11.2	246	88.8
Expand an existing knowledge in my academic field of study	156	56.3	121	43.7

Table 1 shows that there is a pattern that points to the fact that undergraduate researchers at the Redeemer's tend to set research objectives that has to do with expanding existing knowledge. This definitely points to a kind of research pattern in the university. Although the scope of the research reported in this paper did not include finding out the kind of knowledge undergraduate researchers at the Redeemer's are trying to expand, that is to say, if the knowledge is about some practical or theoretical phenomena, going by how research is conducted we can assume that undergraduate research pattern at the Redeemer's seeks both theoretical and practical relevance through knowledge expansion. Apart from this notion, the fact that the pattern observed is mainly on expanding existing knowledge also points to the fact that undergraduate research at the Redeemer's still revolve round interrogating existing phenomena not creating or raising new phenomena. This requires some assessment as it may develop into a social reality where undergraduate researchers at the Redeemer's

university will be tied to what has always been researched in their fields, thereby taking away required level of creativity that will lead to the carrying out innovative and ground breaking research.

Table 2: Undergraduate Researchers' Approach to Choosing Research Topics

Research Approaches	Yes		No	
	No.	%	No	%
Phenomenon Based Research Topic Selection Approach	118	42.6	159	57.4
Literature Based Research Topic Selection Approach	91	32.9	186	67.1
Supervision Availability Based Research Topic Selection Approach	48	17.3	229	82.7
Department Directed Research Topic Selection Approach	20	7.0	257	93.0

Table 2 also shows that there is some kind of pattern in the ways undergraduate student researchers at the Redeemer's approach the choice of their final year research topics. This is because 42.6 % of them indicated that they approached the choice of their research topics through the phenomenon based research topic selection approach. We defined phenomenon based research approach as a situation in which the undergraduate researcher developed his/her research question(s) and objectives based on phenomenon he/she has observed. Here, most of them indicated that their approach to their final year research was phenomenon based, that is, that they carried out their research as a result of some empirical phenomena they observed. The phenomena based approach is most likely to lead to practical relevance if well managed, since it was derived from observation of empirical situations. Very close to the phenomenon based research topic selection approach is literature based research topic selection approach which we defined as a situation in which the undergraduate researcher developed his/her research topics based on gaps he/she observed in the literature. We consider that literature based research topic selection approach constitute and emerging research pattern based on the fact that about 32.9 % of Redeemer's undergraduate researchers adopted it. In other word, we are saying that phenomenon and literature based research approaches constitute evolving research topic selection approach patterns at the Redeemer's.

Research Norms
Externalization and Objectivation
We identified that research culture can be externalized in Redeemer's through undergraduate research policy, teaching research methodology, and supervision of undergraduate students carrying out their final year research projects. All the interviewed Professors indicated that they do not have written undergraduate research policy in their colleges and departments. Their responses also indicated that there is different view of what undergraduate research policy is about and whether it is necessary or not. In this study we take objectivation to be the acceptance and usage by a scholarly community the externalized ideas, theories, methodologies and frameworks about knowledge generation through research. Consequently, with regards to objectivation of research at Redeemer's data from the interview showed that lecturers who serve as supervisors and mentors help students to objectivate externalized ideas, theories, methodologies and frameworks in their fields of study. The responses are shown below:
Professor 1:
There is no research policy for the undergraduate level research. There is policy to be strengthened for the postgraduate program…

Professor 2:
We have research policy, but it is not documented policy. The demand at the undergraduate level is below that of postgraduate. However, we are obliged to teach undergraduates how and why research is done, to carry out research that will be reported in project form. No need for policy because all staff are aware of what to do in terms of undergraduate research. When we come to higher levels then there must be policy.

Professor 3:

It is too early at this level [undergraduate level] to have a research policy because the students are gradually being introduced to research as a discipline through the students' project which they do in their final year.

Professor 4:

My understanding is that object of research is general and I don't think that there is need to enunciate a particular policy for research at various levels. Making a kind of policy will be limiting the scope of the context or contents which students as researchers can dabble into, so people should be free to enquire into any area which a particular department focuses on.

Professor 5:

Yes there is, it emanate from…NUC, but also flows from the university's policy and disposition towards research. We know that for higher degrees-masters, MPhil and PhD, the undergraduate is the foundation and so embedded in the university's curriculum we have things that have to do with research…

Professor 6:

Each Department has got a policy, but the policy is rudimentary. It is more on how do you manage undergraduate research project? How do they present their report? How do they divide their projects into chapters? We hope that we will use the opportunity of postgraduate studies to be able to formulate policies that will put the students at the forefront of growth and development.

Responses on teaching undergraduates research methodology
Professor 1:

Right from third year we have a course called 'research methodology' where we introduce students to the different methods of research. [This course is meant to make them to start] thinking about essays question and long essays-junior thesis. There are some lecturers who would say [to students] there is an area I want to do [research] and I could not do [research] it, could you do [carry out your research on] it. Most lecturers tries to give [influence students to choose] a research topic they can control.

Professor 3:

The culture of research is being inculcated into them in terms of how they select their topics, what problems are they trying to solve what could the aims and objects of the project be, which method they are going to use and by that make them familiarize themselves into some developments in the areas which where they want to identify some unsolved problems..

Professor 4:

Introduction to research courses are taken at 300 level [third year]. We have tow types of courses on research, one is general 'introduction to research' and the second is 'communication research' taken at 300 level first and second semesters. They [undergraduate researchers] use knowledge gained in these course to write their final year projects.

Professor 5:

…the whole process begin begins in 300 level because from that point they have courses on research methodology and the original project they do is suppose to be guided by research ethics they learn in their research methodology courses.

Responses on supervision of undergraduate students carrying out their research projects
Professor 1:

In my College we have 'defenses' [oral presentation] where the Part 3 students who are going to final year will come up with topics and say this what I will like to write about. We allow it to

generate from them. This is amended by the staff for suitability. We use this strategy to internalize thesis writing; through guidance provided by lecturers.

Professor 5:

To achieve [research] relevance, we allow academics to collaborate with undergraduate students. The students first talk about their interest…come up with an area of interest where he coins two or three topics. The lecturers help the students to fine tune his interest before writing his proposal and this will help to bring the issue of relevance to fore. Students do not just go for a research topic without this procedures: once a student identify a research topic that is relevant, the onion will now be on the supervisor and the student to ensure that the outcome of the research supports solving problem in the society.

There are several ways of externalizing research culture in a university, we have identified three at the Redeemer's: research policy, research methodology curriculum and research supervision and mentoring. These three have been used to help undergraduate research students understand research culture that are considered relevant to their different academic fields.

Internalization

We take internalization to be norms for conducting and disseminating research that has been practiced over time and has been taken as accepted in a research community. We therefore, operationalized internalization as publishing and presentation in conferences in the context of this research. Data provided through interviews however, present the details of internationalization of research culture at the Redeemer's thus:

Conferences Attendance and Publication by Undergraduate Researchers

Professor 1:

I am hoping the we finalize our plans to help good students do paper presentations in conferences. We are planning something like a college day as an alternative program for encouraging and making students do paper presentations.

Professor 2:

A student has published a paper with her supervisor on health issue on Redemption Camp and Mowe axis [Redeemer's host communities]. We take our students to conferences nearby. Thirty four of our students went with me to Olabisi Onabanjo University,[Ogun State, Nigeria] and about that number to Federal University of Technology, Akure, [Nigeria] for the National Association of Radio Science conference. We use conference experiences to prepare them [undergraduate researchers] for the future.

Professor 5:

The College is interested in helping undergraduate students present their research outcomes for publication and conferences. We do mock defense [oral presentation of research] before external supervisors come in for final evaluation, which help to assess what students are researching into.

Professor 6:

We have one of our undergraduate [research] projects being accepted and undergoing review. Weather an undergraduate project is publishable or not depends on the supervisor.

There have been emerging undergraduate research norms at the Redeemer's, although these norms have been taken for granted indicated by the data collected through the interview. This is quite positive as the literature describes institutionalization as taken-for-granted actions that accumulate to become norms and patterns (Farashahi, *et al.* 2005; Schneiberg and Soule 2005). It was revealed that across varying fields in the university strong interest has been shown to indoctrinating undergraduate research students into academic publishing and conference presentations.

Emerging Institutionalization of Redeemer's Undergraduate Research Norms and Patterns

What we did in this study was to trace and put into context social realities that make undergraduate research administration and practice at the Redeemer's. The data collected through ethnographic observation, interview and questionnaire were used to come up with Figure 2; a diagrammatic representation of the institutionalization process at the Redeemer's. Our assumption was that there is likely going to be an emerging institutionalization of undergraduate research norms and patterns at the Redeemer's University considering the fact that undergraduate students are taught how to do research through various research methodology courses and because they are obliged to carryout independent research studies before graduation. Our assumption was right considering the fact that the qualitative data analyzed showed that there are emerging institutionalization of undergraduate research norms and patterns which are perpetuated by actors ranging from Colleges, lecturers and undergraduate research students. We were able to identify the various actors involved in Redeemer's undergraduate students research social realities through ethnographic observation where it was revealed that externalization of research ideas, theories, methodologies, and frameworks emanate from two actors namely, colleges and lecturers.

These two entities go a long way to determine the ideas, theories, methodologies and frameworks that were adopted by undergraduate research students for their final year research projects. With regards to objectivation, lecturers who serve as supervisors and mentors for undergraduate research students when carrying out their final year research projects, together with the undergraduate research students themselves are involved in social realities where objectivation plays out. Research activities that involve undergraduate students as researchers and lecturers as supervisors or mentors constitute objectivation of externalized ideas, theories, methodologies and frameworks. This leads to cognitive structuring, diffusion and legitimization which evolves into the institutionalization of norms and patterns which reflects in the objectives and approaches they adopt for research. As shown in Figure 2, one of the identified five institutionalized pattern of setting research objectives has strongly emerged as an institutionalized pattern, whereas two emerged as institutionalized pattern from the four identified research topic selection approaches undergraduate research students adopt.
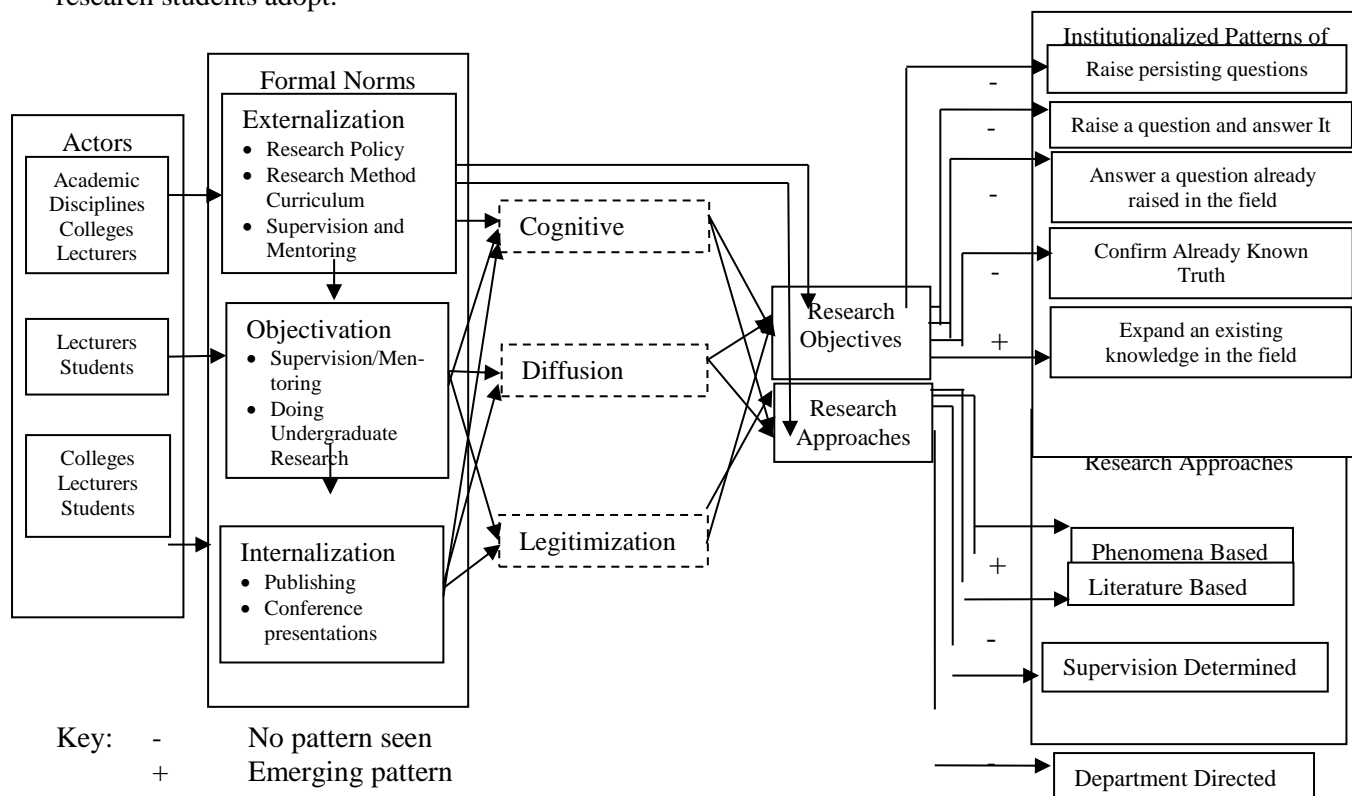

Key: -   No pattern seen
        +   Emerging pattern

Figure 2: Undergraduate Research Norms and Patterns Institutionalization Framework

Recommendations and Conclusion

We conclude that there is need to pay more formal attention to undergraduate research at the Redeemer's University considering the fact that it has the potential generate into institutionalized norms and patterns and the fact that undergraduate research serves as the training ground for postgraduate researchers. We are saying that it is better to construct accurate institutional research norms and patterns at the undergraduate level than to spend ample time trying to deconstruct wrongly inculcated institutional research norms and patterns at the postgraduate research level. Hence, there should be a written university wide undergraduate research policy which will provide the framework for undergraduate research policies at all levels, that is, university, college and departmental levels. Such policy framework will not only be useful to undergraduate researchers, it will also be useful for training and providing actionable framework for young supervisors and mentors who constitute a core part of the actors that are involved in the social realities that constitute undergraduate research programs at the Redeemer's. The fact that research topic selection approaches such as supervision determined and department directed research approaches do not constitute emerging patterns of undergraduate research social realities may have negatively influenced the number of cases of conference presentation and research publication reported in this study. This is because the two approaches constitute the primary approaches that are directly tied to supervisors' and departmental research projects which as a matter of fact will be more meaningful than those that emerge from phenomena empirically observed or observed from the literature by undergraduate research students. If we consider the fact that scholarship for postgraduate studies are provided to graduating undergraduate students that have competitive academic performance at the Redeemer's, then we would recommend that such students should be setup for supervisor determined or department directed approach to selecting undergraduate research topics. This may allow them higher level of rich research practices, conference presentations and scholarly publication experiences prior to their postgraduate studies.

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