

# Improving Research Skills of Graduate Students: Focus On Library Instruction at the University of Ghana

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## Abstract

*The study examined the link between graduate students in the Faculty of Social Sciences' thesis/project work and library research instruction. The study adopted both quantitative and qualitative methods for data collection. The study revealed majority of graduate students at the University of Ghana are not always up-to-date with library tools and new technologies for research.*

## Introduction

Graduate students of the University of Ghana (UG) are required to carry out thesis research projects. Thesis writing is a major pre-requisite for the award of masters or higher degrees at the University of Ghana. All postgraduate students at the University of Ghana consider thesis writing important to their academic success. A thesis is supposed to demonstrate that the student can take a project and bring it to a genuine conclusion – very different from the usual undergraduate term paper that is not revised after the teacher sees it (Edwardson, 2008). A thesis provides, then, a new kind of work and frequently a new kind of skill for the graduate student.

When the thesis project is completed, it is evaluated by the quality of the work submitted within the stipulated time (Fatoki, 2004). It is used to indicate the student's ability to select, research, and draw logical conclusions from findings. The quality of the research project is to a large extent dependent on the quality, quantity, and recency of resources consulted and cited (Mbofung, 2003).

Faculty often assumes that when students enter graduate courses, they know how to conduct research (Bellard, 2007). Students however, come to graduate study with vastly different first degree background, and levels of preparation and may understandably be unaware of the deficiencies in their research training (Bradigm, 1987). These faculty assumptions can do a disservice to students and create challenges for librarians trying to provide increased

information literacy services to graduate students. Because of these assumptions, faculty may be unwilling to provide time within class for library instruction or they may neglect to mention librarians and libraries as resources.

Although at the beginning of each year the library provides orientation tour for students, aimed at alleviating students' library anxiety and promoting library services, students at this time are too new to the institution and to their research projects to have precise information needs. Literature review writing skills are the significant skills for graduate students in writing academic papers and thesis. A good literature review writing provides the graduate student idea and analytical framework on his/her critical study (Patchara, 2008).

From supervisors' comments, it has been found that most graduate students at the University of Ghana have problems in using information to prepare academic papers, research proposals and writing of theses. Although University of Ghana students are allowed access to library services at the various satellite libraries located on the University of Ghana campus, library instruction for these students is provided solely by librarians at the University of Ghana central library (Balme Library). The extent to which graduate students at the University of Ghana are provided with library instruction is determined by whether individual faculty members respond to librarians' efforts to provide library instruction sessions during class meeting times.

## **Methodology**

The target population for the study consisted of graduate students in the Faculty of Social Sciences. Both qualitative and quantitative research methods were used for data collection. The study examined the link between graduate students in the Faculty of Social Sciences' thesis/project work and library instruction in literature search. The sample size used was 200 out of the 707 total population of graduate students using a multi-stage random sampling under six departments: Information Studies, Political Science, Psychology, Social Work, Economics and Geography. The responses were analysed using Kruskal Wallis One-Way ANOVA (non-parametric) model to test the differences in perception and expectations of postgraduate users of the library.

## **Review of Literature**

A wide range of monographs and serials dealing with research activity was examined. Only the most significant are noted in this review.

Research is a process of inquiry that depends on expertise, engagement with the cutting edge of scholarship in specialised disciplines or interdisciplines (Schrader, et. al., 2012). According to Elizabeth Church (2010), the real art of research is “knowing how to stay on the path and follow the evolution of an idea through all of its twists and turns. When we look at a research finding as a breakthrough, for the person who found it, it is anything but a breakthrough. It is years of tedious small steps”. Research excellence depends on continuous enhancement of expertise and on close engagement with cutting edge of scholarship, at both theoretical and methodological level (Schrader, et. al., 2012).

A thesis project provides for scholarly exploration, analysis and critique of a chosen area. This process begins with a review of the relevant literature and current thinking in the chosen area, and lead to the exposition of a position (programme, treatment or policy recommendations, for example) or a proposed intervention regarding that issue. The emphasis for the project is on scholarly thinking and critical analysis. The project should demonstrate excellence, and may even be publishable.

The emphasis with thesis is on the development of a research question or theory which is situated within a tradition of existing knowledge and research and which is then rigorously investigated following procedure from established research traditions. Scholarly exploration and critical analysis are an intergral part of this process, but they lead on to the systematic investigation of a question or the testing of a hypothesis, and to the statement of a position, or thesis, which arises from the evidence gathered.

The thesis is driven by critical inquiry, and typically leads to empirical investigation, or theory testing, through established quantitative and/or qualitative methods. The emphasis for the thesis is more theoretical, to rigorously test the effectiveness of a proposed intervention. The thesis should make an original and/or significant meaningful contribution to the knowledge base.

In addition to providing appropriate collections for graduate students, academic libraries and librarians also have a duty to ensure that students know how to appropriately use and evaluate the information in those collections (Rempel and Davidson, 2008).

The importance of research to graduate education requires that academic libraries develop methods of information literacy instruction that meet the needs of a diverse graduate student body. If instructors' expectations regarding students' existing skills are too high, instruction may fail to cover areas of information literacy that are assumed to already be possessed by students. Similarly, starting with basic information literacy concepts may deprive more advanced students of the opportunity to improve their information skills. Therefore it is incumbent on academic libraries to both identify methods of instruction that assess students' disparate proficiencies, and to adjust the form and substance of instruction accordingly.

Although several studies have been conducted on research needs and skills of graduate students, no single approach has emerged as the best for doing it (Hoffmann, et. al., 2008). They further opine that, research at the graduate level requires the sophisticated use of specialised information source, and involves synthesis of information from various stages of the scholarly communication process, that is, from primary, secondary, and tertiary sources. Library instruction for graduate students must therefore address this complexity, since the high expectations with respect to information literacy can be stressful (Smith, 2003).

Bellard (2007) in surveying graduate students in social work before and after an online information literacy workshop, observed slight increase in levels of library skills, while majority of the students advocated the inclusion of library skill instruction in the curriculum. Bradigam, et. al. (1987) also observed that students come to graduate study with vastly different levels of preparation and may understandably be unaware of or reluctant to confront the deficiencies in their research training. Librarians see these deficiencies in research skills first-hand at the reference desk and during individual consultations with graduate students.

Morrison (1997) discussed the results of an exploratory study using focus groups methodology in information literacy research at Concordia University College of Alberta. It discussed the concept of information literacy and role of the undergraduates library information literacy skills. Participants perceived information literacy as valuable, and agreed that the library plays an important role in developing the skills of locating information.

Akhtar (1986) on his part reported that most students lack understanding and skills regarding how knowledge is organised, and their failure to identify, locate, retrieve and use the needed information adequately. He stressed the need for organised user-education programmes

in schools, colleges and university libraries to develop among the students the ability to access, evaluate and use information from a variety of sources.

### **Result of Findings**

The idea of research skills help students answer the following sorts of questions:

- What is a scholarly article?
- What is considered a primary resource in this discipline?
- How can I thoroughly search the scholarly literature on any subject?
- How do I critically analyse and evaluate resource appropriateness for this assignment?
- How does scholarly communication function within this discipline?
- How do I make original, independent and critical thinking, and develop theoretical concepts?

Currently, the University of Ghana library offers the following instruction in research skills and techniques, though in a disjointed and uncoordinated manner, very often at the request of particular Dean or Head of Department for his graduate students:

1. ***Information Retrieval Skills***: How to use the library – ability to identify and use a range of appropriate resources provided to the library. Knowledge of a range of tools and techniques for research/retrieval.
2. ***Use of the Internet for Research Purpose***: Search techniques. Sifting information. Establishing appropriate levels of trust in Internet based sources. How to cite Internet – based sources.
3. ***Information Management and IT Skills***: Bibliographic and literature search. How to do a literature review, how to prepare a bibliography. How to know that one has covered the major sources in one's field, how to find the most recent theses/published studies in one's field.
4. ***Analytical and Research Skills***: How to evaluate and select appropriate approach to topic. Identifying key features of topic. Striking a balance between primary and secondary sources.

Majority of respondents 145(72.5%) expressed their appreciation and the need for library support when conducting and writing their literature reviews and theses or dissertations.

One factor that was identified as contributing to graduate students' difficulty in conducting quality research was the number of years some of the graduate students had been out of the classroom prior to starting the graduate programme. A considerable number of respondents (65.0%) prior to starting the graduate programme had been out of the classroom for five years or more. Though these students looked highly motivated, they had little experience searching in computer databases. The finding corroborates Ewald (2006) study which observed that graduate students who have been out of the classroom for an extended time period were more easily frustrated by the extensive range of search options available to them.

Ignorance of what librarians are good for, and reluctance to ask them for help, was found to account, in part, for poor research skills of graduate students. Many of the respondents (42%) said that, initially their perception got in the way of the library instructing them on what they need to know about research. They explained that they thought they "already know how to do research" that they did not need to attend the library instruction session. It was not until they attended the session that they realised the big mistakes they had made.

Another factor that contributed to graduate students poor research skills was the faculty themselves ignorance or unaware of the databases and other tools the library has. If faculty and these supervisors themselves did not know, then their students do not either, as students are highly influenced by their professors when it comes to research.

Concerning their views on the impact of library research instruction, 52% of respondents said they were appreciative of the help and assistance given by the instruction librarian, as subsequent, their theses supervisors commended them for submitting much better quality thesis chapters after their library instruction classes or one-on-one sessions.

Respondents were also asked how they currently feel about their library research skills, and whether they have been taught how to do library research, and what their main challenges with library research and which resources they primarily use. Overall, 62% of respondents said they have been taught how to search online article databases at some point in their academic careers, but this percentage decreases for most other skills, down to only 11% who have been taught how to find patents. Those areas where student had received the most instruction were: using the library catalogue (OPAC), searching online article databases, doing a literature review, and formatting citations in a bibliography.

Respondents identified many challenges with finding the information they need for their work. In particular, respondents had four (4) major challenges in common: keywords and search terms, too much information, online access issues, and materials the library did not have. There were preferences among respondents for receiving instruction about library research skills online rather than in person. Majority (64%) said, due to time constraints, would prefer online tutorials, 45% would like workshops run by a librarian and faculty member, while 35% would like workshops run by a librarian. Respondents however indicated that their incentives to attend the workshop would depend on topics relevant to their course programme, hands-on opportunities, and learning what they need to know. Deterrents from attending were time constraints (too busy), inconvenient workshop time, topics that sound too basic, and too long workshops. A few faculty members interviewed also expressed a strong desire for their students to have hands-on experience with library search skills instruction.

Majority of graduate respondents (65%) admitted that they do not know how to critically evaluate Internet sources, which obviously impacted on the quality of their research process and writing. Up to 68% of respondents were unable to distinguish between paraphrased and plagiarised text. The finding corroborates a study published in *Psychological Reports* which found that “students will use writing strategies that result in plagiarism when they face the task of paraphrasing advanced technical text for which they may lack the proper cognitive resources with which to process it” (Roig, 1979).

## **Conclusion and Recommendations**

The study revealed that majority of graduate students of the University of Ghana are not always up-to-date with library tools and new technologies for research as faculty and librarians might think they are. Many were unfamiliar with tools like citation databases.

The relevance of a strong research skills for graduate students cannot be overemphasized, as some of these students would soon become faculty and professionals within their own discipline. The combined integration of the library into the graduate course system to sharpen students’ research and information literacy skills is therefore very crucial.

The library needs to invest, plan and continue to offer instruction workshops and sessions on research skills for graduate students. The content of such workshops should be updated regularly to meet the prevailing circumstances and needs of the graduate students at the

University of Ghana. This can however, be successful when there is effective collaboration between the library and the faculty. The library should set up a “graduate desk” and appoint librarian(s) whose specific job would focus on assisting graduate students in their literature search.

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