

SSC Graduate Students' Difficulties in Doing Research

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ABSTRACT

Research has become an integral part of learning. Thus, students' capabilities of doing research need to be strengthened. The study aimed to determine the difficulties of students at Sorsogon State College, Philippines-School of Graduate Students which may serve as a basis for an intervention program. Respondents in this study are the 93 students who have taken Research Methodology subject at SSC School of Graduate Studies. It utilized the descriptive-developmental research design. Data gathering was primarily done through survey questionnaire and supplemented with unstructured interview and focus group discussion. Descriptive statistics was utilized to summarize the data. Results showed that the respondents encountered much difficulty in conceptualizing a research problem/title, looking for and reviewing related literature and studies, determining the correct research methodology and procedures to be used, determining the appropriate statistical tools, gathering the data, and analyzing and interpreting the data. Among the factors identified which hinder them from doing research are heavy teaching loads, lack of motivation and commitment, and financial

constraints. There are interventions that are proposed to enhance the students' capabilities in conducting quality researches.

Keywords - Education, research difficulties, graduate students, descriptive-developmental research design, Sorsogon City, Philippines

INTRODUCTION

Kerlinger (1977) emphasized in his study that the basic purpose of conducting research is to develop a theory. The result of every research is not conclusive or applicable in all cases. However, this result needs to be verified in some instances where samples' or respondents' characteristics might differ in some ways. In the academe, students manifest individuality where learning patterns or even lifestyle differs from each other due to several factors such as culture or family background. The theory made from the output of the research can significantly contribute on how to address problems or even create interventions to situation which have the same characteristics.

Ramirez (2012) added that the faculty members of University of the East have positive attitudes and interest in conducting research work in their premise. However, some of them seldom conduct researches, as they do not have a clear notion on its value in terms of their enhancement in the field of instructions. Thus, the university implemented mixed strategies to improve the contributions of their faculty towards their research mandates. Likewise, Nuqui (2012) disclosed that the determinants of the faculty to conduct researches were due to extent of promotions in research and availability of mentors' assistance. He also added that their institution faces the same problems as what others SUCs do like availability of the research budget and support mechanism.

One of the faculty's best supports in any higher education institutions (HEIs) is continuously improving research undertakings by the faculty through time. The study of Lamberte (2014) disclosed that the research orientation of the faculty can be improved by adopting strategies like providing support and mechanism from its institution and allow its faculty to internalize that research is an integral part of any higher education institutions.

The students should be prepared for conducting researches in the field, not only as a course requirement but as a skill needed for their career. This is supported by the study of Dolmans (2005), where students should learn to process and address the needs of the community through problem-based approach. This will allow

students to create results that manifest the four principles, namely, contextual, self-directed, constructive and collaborative. This also allows the students to fully understand the concepts that they are working on to address the problems.

The cited studies open an opportunity to come up with technical papers that have a great impact to the community. However, students seldom write papers after finishing their degree as they may find difficulty in reformulating a new set of objectives for the conceptualized problem. The ratio of researchers to non-researchers is significantly less due to several problems or difficulties. Thus, an intervention may be done and implement to address this difficulty and assist interested faculty to conduct researches especially those which uplift the quality of their lives and the society, in general.

The cited literature discussed how students conducted researches to address the problems that exist in their premise. Other institutions adopted some strategies to improve the researches of their faculty by improving the support and mechanisms of their institution. Hence, their difficulties to create their research papers were not discussed or addressed. This study determined the students' capabilities, as well as their difficulties and possible problems met in the pursuit of writing research papers. This would describe their skills in formulating problems based on any situation, synthesizing related literature and studies, and presentation and analysis of gathered data. These ideas may open an opportunity to propose appropriate interventions to enhance their skills and competence in conducting research.

FRAMEWORK

To promote research among faculty and students, the study of Hippel (1998) discusses the collaboration between the students and faculty to promote research development and maximize retention in their college. The faculty guides their students in handling researches since their main respondents were those students who have low GPA's, which eventually results in helping their students gain attention to their study.

The study of Hunter (2007) discusses the similarities and differences in the perceptions of the students and faculty towards research. In his study, it revealed that faculty guides their students in writing their research papers and how to work collaboratively. In this manner, both respondents think and act in the same way by sharing the same ideas to address problems that they encounter. However, they differed in the way their personality develops during the research process since

students perceived that their socialization was improved while faculty viewed themselves as becoming a scientist in the field. This idea gives an insight that a research intervention can improve the conduct of research, develop personality and increase motivation to write other papers of their chosen field of interest.

These cited studies point to the idea that given the support from the national government and the academic institution, faculty capability in doing researches can be developed and enhanced to meet the need for quality researches. Literature and studies posited that research capabilities can be enhanced through various means.

Nagy (2011) pointed out that research capacities can be built up through scholarship in teaching and initiative in learning it. The results build a tension that scholarship may have a conflict in teaching since they differ in concepts and application. The outcomes of the research suggest that capacities can be built up in other alternative way such as through collegiate structures.

Mullan, Weston, Rich and McLennan (2014) highlighted the integration of the research capability building to their curriculum so it can bring positive outcomes to the graduating students in the medical profession. As the faculty in the medical school delivers instructions that are all research-based, students have a chance to check the authenticity of their learning experiences. Their projects invoked the medical schools to conduct hands-on researches with the guidance of their medical faculty. Their method enabled their students to develop the research capability through self-perceived research experiences.

Hepworth and Duvigneau (2013) suggested in their study that in developing learners to have critical thinking and research capacity, there should be an institutional strategy. This strategy resulted from the link between the lack of information literacy or independency in learning to academic teaching skills and research capacity.

On the other hand, Hatakka and Lagsten (2012) used the Amartya Sen's Capability to evaluate the development of students' capabilities that can be enhanced based on available internet sources. Their method achieved the desired outcomes by following the development process of the students in higher education and comparing the outcomes to its objectives.

Lastly, Nielsen and Abildgaard (2013) emphasized that organizational interventions may fail or succeed in realizing its objectives. The organizational interventions must closely monitor the means to achieve the desired outcomes. Whatever the outcomes of the interventions, the organization must have an evaluation to determine its overall effects.

OBJECTIVE OF THE STUDY

This study determined the SSC graduate students' capabilities and difficulties in doing research to enhance their research competencies.

METHODOLOGY

Research Design

This study used the descriptive method in determining the students' difficulties in doing research. It also utilized developmental method for the interventions to be developed to address the identified difficulties.

Respondents

The respondents of this study were the 93 graduate students of the Sorsogon State College- School of Graduate Studies enrolled first and second semesters of school year 2013-2014, and summer of 2014. Students who have already taken the Research Methodology subject were purposively selected as the respondents of this study.

Instrumentation

The proponents drafted the survey instruments and validated the questionnaire to other students who were taking the thesis writing class. Also, their suggestions to improve the content of the questionnaire had been evaluated for possible inclusion. The revised questionnaire was subjected to blind critiquing of some faculty of the School of Graduate Studies to enhance further the proposed interventions and solutions for the improvement of the research capabilities of the clients of the School of Graduate Studies. Thus, the final forms of the questionnaire were disseminated to the respondents to gather data regarding their difficulties in doing research.

Research Ethics

The survey questionnaire was used to gather data from the respondents. This was supplemented by unstructured interview and focus group discussions. The confidentiality of the students' responses has been addressed by recording their names into respondent's number. The unstructured interview to the respondents was done by sending the questions through email for them to answer with utmost confidentiality at their most convenient time. Moreover, the focus group

discussion was utilized to validate their responses and to discuss possible solutions or interventions to the problems and difficulties encountered by the students in doing research paper.

Data Collection

Survey questionnaires were distributed to the students during their class in Research Methodology. Responses to the questions relating to their skills and difficulties in writing research papers were gathered as soon as the questionnaires were filled out. However, open-ended question such as their problems and suggested solutions were not readily answered. Hence, they were given ample time to answer through e-mail.

Statistical Techniques

Descriptive statistics was utilized to summarize the data gathered. These were frequency count, average weighted mean, and ranking. A researcher-made questionnaire was used in gathering data supplemented with unstructured interview and focus group discussion. To describe the level of difficulty, the following scale was used:

4.5	-	5.00	-	very much difficulty
3.5	-	4.49	-	much difficult
2.5	-	3.49	-	moderately difficult
1.5	-	2.49	-	less difficult
1.0	-	1.49	-	not difficult

RESULTS AND DISCUSSION

SSC graduate students’ level of difficulties in doing research

Table 1. Students’ extent of difficulty in doing research

Skills/Difficulties	Weighted Mean	Description
looking for related literature and studies	3.58	Much difficult
determining the appropriate statistical tool	3.58	Much difficult
Conceptualizing a research problem title	3.57	Much difficult
determining the correct research methodology and procedures to be used	3.57	Much difficult

gathering the data	3.52	Much difficult
presenting, analyzing and interpreting the data	3.51	Much difficult
review of related literature and studies or theoretical and conceptual frameworks	3.51	Much difficult
Abstract	3.25	Moderately difficult
discussion of results or findings	3.23	Moderately difficult
writing the introduction or background of the study	3.23	Moderately difficult
formulating the statement of the problem	3.18	Moderately difficult
conclusions and recommendations	3.02	Moderately difficult
acknowledging the sources of data/references	2.40	Less difficult

The two areas of difficulty which got the highest weighted mean of 3.58 are on the difficulty of the students in looking for related literature and on determining the appropriate statistical tools to be used. Students have much difficulty in identifying which and what literature can be included in their paper. These difficulties may be attributed to the fact that they were having problems in identifying the scope and variables of their study. This may result to inappropriate or irrelevant literature support to strengthen their interpretation of the results.

Many researchers believe that the richness of the manuscript is dependent on the richness of the reviewed literature and studies used as these aid the researchers in the conceptualization of the problems and the variables to be included, in determining the appropriate statistical tools, and the choice of correct research design and methodology. Related literature also serves as backup or support to the findings of the present study. Further, it helps the researcher identify the research gaps coming from the researches that were conducted previously. This will give them an idea what remains to be carried out and what needs to be done to address the problems and issues that were not yet covered by previous studies. Hence, reviewing literature broadens the researcher’s perspective and enables him to write a quality paper.

Determining appropriate statistical tools is another identified difficulty of the respondents. The misunderstanding of the statement of objectives listed in their paper could result to inappropriate statistical tool to be used in data treatment. It was observed by the researchers of this study that graduate students were knowledgeable on how to solve equations using statistical tools. In addition, they could easily memorize the definitions, yet they lack the understanding when to use an appropriate statistical tools given a particular set of data. In addition,

students can write specific objectives for their problem but they have difficulty in identifying the variables to be included in their study. The lack of ability among students to classify their gathered data may result to their difficulties in identifying the appropriate tools in treating their raw data. The correctness of the findings in the study depends on appropriate statistical tools that will be utilized.

Conceptualizing a research problem and determining the correct research methodology and procedures to be used are two other areas of difficulty that both received a mean rating of 3.57. Most of the research problems that they have in mind are either too broad to be realized within a given time or lack relevance/significance to merit the conduct of the study. This difficulty may be due to their limited review of related literature and studies as well as limited exposure to possible sources of a research problem.

On the other hand, correct methodology and data gathering are also considered a difficulty of the researchers especially if the sources of data or respondents of the study are from far-flung places which require the personal presence of the researchers in the conduct of interviews or in giving examinations to pupils in remote places. Another difficulty confronting the researchers is the acquisition or purchase of some equipment or devices for developmental studies or inquiry-based researches. Data gathering always requires funding to acquire the needed materials that will be used during the research proper. Besides, there are some researches where data are concealed and not readily made available for use of the researchers due to reasons of confidentiality of documents, ethical considerations, and others.

Areas in research that were identified by the respondents to be moderately difficult were writing the *abstract* (3.25), *introduction or background of the study* (3.23), writing *discussion/interpreting of results or findings* (3.23), *formulating the statement of the problem or the objectives of the study* (3.18), and *writing conclusions and recommendations* (3.02).

Areas that were identified as moderately difficult are mostly in writing the papers. As noted, the research papers being submitted by students in research methods subjects, lack quality as far as presenting their ideas logically and in showing the background and the justification of the study. At times, some students are tempted to simply lift ideas from the related literature and put them together in the introduction. They lack the knowledge and skills to organize and synthesize the ideas and present them logically in the background the problem.

Writing introduction usually contains the five most important data. These are problems, importance, literature and findings of the study, the objective of

the study, and timeliness. This means that the writer should show to the readers that there is a problem that needs to be addressed by the present research and that the study is important to several end-users to merit the conduct of the study. In addition, problems should present its felt need that should be answered or address through systematic approach. These problems will be represented by the objectives to set boundary on which the study should answer in a certain time frame allotted. It should also present findings of existing literature and studies describing what has been done regarding the issue. It should likewise present the objective or the purpose of the study which will pave the way in addressing the problem.

Lastly, the study should be recent and timely in presenting new findings to the existing repertoire of knowledge. The timeliness of the study can strengthen the justification for the felt needs of the study to be conducted as it may address problems that are currently happening in the society.

Another aspect where students are not very capable of doing is the interpretation and analysis of data. Most students end up in simply presenting the data either textually or graphically; however, they lack or even fail to give the analysis and interpretation of data.

According to Onwuegbuzie (2004), despite of the methods used in a research, its findings can be interpreted properly if the four types of significance had been significantly stated in their research paper such as statistical, practical, clinical, and economic. It will guide the researcher to properly interpret the results based on any significance that might be related to the undertakings.

In addition, the interpretation is more dependent on the researcher's background, skills, biases, and knowledge than on conclusions drawn from quantitative research. Thus, if the researchers have limited readings, experiences and exposure to research undertakings, then their interpretation will lack the depth that is needed to make the result acceptable and merit the approval of the evaluators or the readers. The ability of the students to establish a data gathering by means of triangulation can extend their strength of interpretation as it may offer additional concepts or ideas which are not present or answered in the survey questionnaires.

Another important thing to be included in the interpretation is the implication of the findings preferably supported by parallel studies, where its concepts and ideas serve as the backup of the present findings. The studies identified to support the findings of the present study will strengthen the findings and may be persuasive or conclusive at some variables or scope of the study.

The researchers should organize and synthesize presentation of various works of other authors to have a smooth flow of thought. Nevertheless, the studies that will serve as the support to the findings could be interrelated to the findings. The researchers should compare or contrast the ideas presented in the form of support studies to tackle its similarities or differences in the current study. The similarities of the studies to the present will strengthen the implications of the findings. On the other hand, discussing the differences of the cited studies to the current study discloses new variables that will serve as the gaps of the present research undertaking.

Students often fail to incorporate these aspects in their paper considering that they are neophytes in terms of doing research. In the case of thesis writing, this is where the role of the adviser comes in to guide the students and to determine the areas or parts of the papers that need to be strengthened or improved.

Out of the nine areas of difficulty that were assessed, only one was identified to be interpreted as less difficult and this is on acknowledging the sources of data or the references which had a mean rating of 2.42. This is due to the availability of the journals that were published online or some published abstracts which are also available online and are usually accompanied by proper citation on each title of the paper. Google Scholar was able to have a large collection of online published journals which includes the different format of citation. In this way, it enables the students to easily create list of references or bibliographies; thus, preventing unintentional plagiarism in their paper.

Factors that hinder the students’ pursuit to conduct research

Table 2. Factors that prevent students to do research. It also shows the ranks

Factors	Rank
Heavy teaching loads and other work Assignments	1
Financial constraints/budgets	2
Lack of interest and motivation to conduct Research	3
Lack of determination and commitment	4
Low language proficiency level	5
Personal problems	6

Most of the respondents were teachers from different workstations of Department of Education at the province of Sorsogon. Hence, their mandate is to render not less than six hours of teaching per day. Hence, informal interview

from these respondents clarifies that the the remaining numbers of hours are devoted to their related teaching work such as preparation of lesson plans, visual aids, presentation, or instructional materials, laboratory experiments, checking of tests and projects, and other related works. The accumulated number of free hours based on their teaching loads is equivalent to ten hours a week. Furthermore, most of their supervising officers give explanation that teaching loads can be reduced as long as additional work assignment will be delegated.

Majority of the respondents claimed that they lack funds for their research undertakings even if it is a simple action research. For them, it always entails expenses since office supplies and materials should be purchased for its preparation and production of their terminal report.

Factors such as lack of interest, motivation, determination, and commitment to undertake research can be attributed to several reasons based on the conducted interviews to some randomly chosen respondents and office personnel. According to a DepEd personnel of the province, research undertakings were seldom being done at the school level since their primary mandate is instruction. Hence, they rationalize that such activity is an additional function that will require most of their time, which minimize their enthusiasm and motivation to conduct researches. Informal interview shows that not all of their supervising officer does not have a holistic idea on how to conduct research papers. Hunter (2007) suggests that to minimize these factors, a collaborative research between the students and teachers might improve their point of view in the conduct of research. Students often have a high level of motivation to do new things such as research. This factor might meet the motivations needed by the teachers and lessen their time in collecting data.

Their perceived idea that they have low English proficiency level is being attributed only to their minimal practice of technical writing. They assert that such perception can be enhanced through practice and guidance from other researchers. As they claimed, they already acquired the fundamentals of technical writing during the college degree, thus, it will be easy for them to express their ideas through writing.

1. Respondents' suggested Interventions to enhance research capabilities

Table 3 shows the list of suggested interventions by the respondents on how to enhance their research capabilities and motivate them to write. These interventions maybe initiated by the college to address the needs of the respondents and other teachers who might need these ideas to improve their writing skills.

Table 3. Respondents' Suggested Interventions

Interventions	Rank
Conduct of seminar workshops on the areas found to be difficult	1
Provision for more reading materials like foreign and local research journals and other references in the college library	2
Development of modules or instructional materials on the areas where the respondents have difficulty	3
Attendance to or participation in research presentations, colloquium, or in-house reviews	4

As presented, the respondents' suggested solution to *conduct seminar workshop on the areas found to be difficult* ranks first. In this solution, it will allow them to have a holistic view on how to conduct research. Moreover, the presentations of ideas from the seminar workshop were based on actual situations; thus, concepts that they would learn will be authentic. In this suggested intervention, students will have an active interaction with the resource speaker through clarificatory questions and actual writeshop. This idea is supported by Brawner (1999) who stated that allowing the faculty personnel to attend trainings help them improve their ability in delivering instructions. This type of interventions shows a greater chance that students may improve their skills in writing as they learn the key points in writing research paper. Seminar workshops allow them to share and collaborate their scholarly works with other writers present in the seminar, workshop or activities similar to it. Most of all, constructive criticisms from the resource person of the seminar or workshop may directly improve their works by citing the parts that need improvement or revisions.

Second in rank is the *provision for more reading materials like foreign and local research journals and other references in the college library* that can be done through monthly subscription to any publisher that offers a collection of locally and internationally published researches. However, it will be a possible waste of fund for subscription since there are online researches that are already posted. Whether it is locally or internationally published makes them accessible anytime and anywhere. The only drawback in collecting research journals that had been published locally or internationally is its relevance to the current study which students are undertaking. The availability of larger collection of references may enable the students to find gaps in the studies conducted which can be used as reasons for the conduct of their research paper.

Respondents considered the *development of modules or instructional materials on the areas where respondents have difficulty* as third in rank. The modules that

maybe developed should simplify the concepts' discussion regarding the areas of difficulty as identified by the respondents. The retention of student learning from any module developed can be achieved if it can be used in the research that they are conducting. The cases which are presented in the module can be a real life application for them to easily internalize the situation. As revealed in the study of Schloss (1988), students' utilization of modules as part of delivering instructions enables them to be superior to other students. This result may be attributed to the fact that students can reinforce their knowledge even after class hours due to some activities which help them improve their skills and check their own work. The modules that had been developed may help students improve their skills in writing and enable them to continuously practice to become an effective writer. As Emotin-Bucjan (2011) revealed in her study, modules are also effective ways of delivering instructions to the learners. This denotes that the use of modules as an intervention will allow the students to learn independently due to varied activities and techniques based on the criteria provided in it.

Students who have an experience in writing research papers may be encouraged to participate in research forum in various levels from local to international level to give them a chance to gain wider exposure in conducting quality papers. This suggested intervention ranks fourth as perceived by the respondents.

This study retrieved respondents' perceptions on difficulties in writing their own research works. Most of the respondents that filled out the survey questionnaire were teachers in the Department of Education. Basically, most of their time in their work station is being allocated in their teaching hours and few hours for paper works. These perceived difficulties might characterize the students in terms of thesis or research writing but will not generalize the students' difficulties in some or incoming graduate students of the advance education. These identified difficulties by the respondents become the basis of the formulation of the interventions that maybe developed. The problems and their suggested interventions in this study might be suitable to the respondents who participated in this study, and also to other graduate students who might be writing their own research papers or thesis. However, there were some problems identified in this study which are beyond the capability of the proponents.

CONCLUSIONS

Based on the findings, it can be concluded that students of SSC SGS encountered much difficulty in conducting research that is brought about by

several factors like heavy teaching loads and other work assignments, lack of interest and motivation, financial constraints, and among others. Such difficulty of students in research undertakings can be addressed by conducting trainings periodically. The research capabilities of the students as well as the new members of the college can be enhanced through the assistance of the senior researchers of the college.

TRANSLATIONAL RESEARCH

The study mainly utilized the survey questionnaire to gather data. The results from the questionnaires enable the researchers to identify the problems of the students that hinder them in writing research. The suggested interventions can be utilized to improve the writing skills of the students in doing research papers and minimize the problems or difficulties that are encountered in writing research papers by the respondents of this study.

Output modules for statistics will serve as supplemental reading materials for choosing statistical tools in their undertakings. It will guide students or researchers how to use their chosen statistical tool(s) in treating the data. For greater probability to reach a wider audience, these modules will be available online to help other students who are not the stakeholders of the college. Other stakeholders may attend the seminars and workshops that will be conducted to extend learning and improve writing skills in doing research papers.

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