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Graduate Students' Skills and Challenges in Research Writing

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ABSTRACT

The most challenging problem encountered by graduate students during their study is the postgraduate research and thesis writing. This descriptive research design was employed to investigate research skills and challenges encountered by graduate students in research writing. The respondents of the study were the randomly selected students at the College of Education-Graduate School of the Iloilo State College of Fisheries who are in their thesis and dissertation writing. The data-gathering instrument was a researcher-made questionnaire. Part I of the instrument assessed the research skills which includes information seeking skills, problem solving skills, methodology skills, analysis skills, writing skills, and communication skills. Part II focused on the challenges encountered by graduate students in doing research. Data gathered were analyzed using frequency, mean, standard deviation, t-test and ANOVA. The .05 alpha level was used as the criterion for the acceptance or rejection of the null hypotheses. Results revealed that graduate students have excellent information seeking skills, problem solving skills, writing skills and communication skills. Methodology and analysis skills are the least skills acquired by students. It was found that the extremely serious problems faced by graduate students in conducting research are poor time management, financial problem, lack of cooperation of respondents, difficulty in identifying research issue, lack of ICT facilities to analyze the data, contradicting/ conflicting ideas between researcher and adviser, and lack of commitment of researcher. It can be concluded that graduate students have not fully mastered the research methodology skills and data analysis skills. They experienced several limitations and challenges. Poor time management is the most critical challenge.

Keywords: research skills, challenges, graduate students, research

INTRODUCTION

Knowing how to effectively do research and filter information is essential skill for all students especially in the graduate school. Research then is seen as an exercise and nourishment for the brain which objectively gives answers to questions and solutions to problems that aids in the betterment of the society. In line with this, a key objective of modern educational system is to raise individuals who do not just devour knowledge like a sponge absorbs water, but rather generate advanced knowledge (Sahan and Tarhan, 2015). In addition, research is an avenue through which new knowledge is discovered, applied or verified and through which appropriate

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technologies are generated (AACCUP Instruments Revised, 2014). As well, and so, research skills are then needed to be practiced and enhanced to achieve objectives and obtain reliable results.

Research leads to inventions, innovations and creation of new technologies and products that can help improve and solve a variety of political, socio-economic, cultural, technological, and environmental issues (Blackburn, Huang & Pozzolo, 2000). But research requires human resources to have requisite skills and knowledge (Frantzen, 2000). Higher education has a key role to play in the creation and dissemination of that knowledge, imparting necessary research skills to students and preparing them for the knowledge society. Consequently, research skills have been identified by higher education institutions as one of the important graduate attributes that need to be imbibed among and used by students (Garg, Madhulika & Passey, 2018).

Moreover, Bökeoğlu and Yılmaz (2005) affirmed that having research skills and a positive attitude toward research are inseparable qualities of rising as citizens that exhibit the necessities of modern age in which research competencies and positive attitude towards research should be acknowledged and valued as essential features of modern individuals. In addition, doors of opportunities, local and abroad, are opening for the people who engage themselves in conducting research. International oral/poster presentation, plenary speakership, awards and recognition and collaboration with local and foreign experts are only a few of the privileges received by well-versed researchers.

Graduate education is about creating individuals who can think globally and consider issues from a variety of perspectives. It is also about skill development that takes the student beyond cultivating a strong analytical mind. Research skills are essential in any academic pursuit. It is ability to find an answer to a question or a solution to a problem. To lead graduate students in a direction that will make them well prepared for the challenges they face in a global environment,

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they need to develop their research skills to discover new knowledge and make significant contribution to their field of discipline.

There is a need to rethink the Philippines' graduate education and research training; how it can best compete with other institutions in the Asia-Pacific region, and the possibility of expanding the contributions to research of its graduate students and academic staff (Calma, 2009). The current dynamics of graduate education in the Philippines suggest increasing challenges for universities into the future. Universities are mainly teaching universities rather than research universities (Bernardo, 2003) and have tended to produce student research that is narrow in scope and low in quality.

Most of the students like to do research work but majority of them tend to avoid it as research methodology has been found a complicated subject to grip over. The fact is that research is not something next to impossible rather it is easy and motivating but the need of the hour is to highlight the difficulties which are stumbling block in the way to research. There are numerous problems faced by researchers especially novice researchers during their research work (Taskeen, Shehzadi, Khan & Saleem, 2014). Many factors may affect the postgraduate thesis works (Duze 2010, Manchishi et al. 2015).

The most challenging problem encountered by graduate students during their study is the postgraduate research and thesis writing. These hinder graduate students in completing their degrees. From these premises, the researcher was prompted to determine the skills, and investigate challenges encountered by the graduate students in conducting research to further improve their research skills, produce and publish quality papers.

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Statement of the Problem

This study determined the research skills and challenges encountered by graduate students of the Iloilo State College of Fisheries in writing their academic research papers.

Specifically, the study sought to answer the following questions:

1. What is the level of research skills of the students in terms of (a) problem solving skills, (b) analysis skills, (c) information seeking skills, (d)communication skills, (e)methodology skills and (f) writing skills?

2. What are the challenges encountered by the students in their research writing?

3. Is there a significant difference in the level of research skills of the students in terms of (a) problem solving skills, (b) analysis skills, (c) information seeking skills, (d)communication skills, (e)methodology skills and (f) writing skills when grouped according to sex and degree programs?

REVIEW OF RELATED LITERATURE

Research

Best and Kahn (1993) define research as "the systematic and objective analysis and recording of controlled explanations that may indicate to the development of generalizations, principles, or theories, resulting in guess and possibly final control of events". According to Feamster (2013), research is the process of creating new knowledge. Making progress in creating knowledge requires a significant amount of background knowledge, before one can reach the ―frontier‖ of a topic, where the interesting questions are.

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Research Skills

Specific research skills that graduate students reported the most growth in across an academic year include oral communication skills, finding information, and methodological knowledge (Bound, Turner, & Walsh, 2009).

The findings of the study conducted by Gilmore and Feldon (2010), revealed that on average, over an academic year, teaching skills and research skills of the graduate students grow, due to the reason that engagement to teaching had been found to promote research skill development while engagement to research may improve teaching skills.

In modern world, attitudes of people are considered more important than their experiences and academic preparation. A positive attitude towards research is a key to success and progress in the knowledge-based societies (Butt, 2013).

Research skills can thus be defined as the ability to identify a problem, gather information about the problem using various information sources, review and analyze the information obtained, and ultimately interpret and disseminate the found solution. Research skills are an embodiment of other skills (Awodoyin, Adorete & Oke, 2020). According to Meerah, Osman, Zakaria, Ikhsan, Krish, Lian and Mahmod (2012) research skills include: information seeking skills, problem-solving skills, communication skills, statistical skills, and research methodology skills. These major research skills are important to acquire to be able to conduct research. According to the authors, Statistical skills are the ability to carry out data collection procedures involving planning and selecting appropriate data collecting tools or instruments, identifying an appropriate method (quantitative and qualitative) for interpreting and manipulating data, and applying appropriate statistical tools for the test of significance besides understanding. Ultimately, drawing and interpreting appropriate conclusion from the results of the analysis. Information Seeking Skills is

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the awareness of various available sources of information. It is the ability to search, use, and evaluate information. Problem Solving Skills is the ability to identify, define, and analyze problems, to create solutions and evaluate them, and to choose the best solution for a particular context. Conceptual thinking, scientific experimentation, imaginative and innovative thinking are essential in finding new ways to approach a problem, analytical skills to examine the consequences of a particular solution, and reasoning skills to weigh one solution against another. According to Ozus, Celikoz, Tufan & Erden (2015), problem-solving skills will also involve creating an atmosphere in which curiosity is encouraged, ideas are discussed, and the real aim of learning is created. Communication Skills is the ability to write and present the research and its findings. It is communicating to others the purpose and outcomes of research. It is the ability to summarize information, explain the purpose, objectives, conclusions of the research, and tailor the communication to the needs and knowledge level of a particular audience. Research Methodology Skills involves identifying and designing appropriate research procedures, understanding the limitations and scope of research design (for example, sample sizes and data type).

Challenges in Conducting Research

Duze (2010) undertook an analysis of problems encountered by postgraduate students in Nigerian universities. The result showed that the most highly identified problem areas were in the order given as follows: (1) problem of lack of equipment; (2) academic problem; (3) financial problem; (4) problem of data collection; (5) problem of supervision; (6) problems related to university administration; (7) accommodation problem; (8) family background; (9) external examiner's problem and (10) personal problems.

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The study of Matin and Khan (2017) revealed that lack of knowledge, lack of experience, lack of fund and lack of regular meetings with supervisors were found the most important general problems. Lack of research project and lack of resource were found to be the most common problems.

The findings of Comba (2015) indicated that the majority (more than 50%) of the candidates, whose theses and dissertations were reviewed, faced numerous challenges in writing their theses and dissertations. The candidates seemed to have challenges in writing all chapters which were included in their research reports. The challenges included inappropriateness in presenting different chapters of the reports and lack of academic writing skills.

Helm (1989) noted that the problems which prevent graduate students from completing studies are three-fold and mostly revolve around research design, data collection and processing and writing of the research report. These problems as observed by Mouton (2001) could be caused by student's inexperience, poor supervision, or an inefficient system.

METHODOLOGY

This study utilized descriptive research design. Randomly selected students at the College of Education Graduate Studies of Iloilo State College of Fisheries who are in their thesis and dissertation writing were the respondents of the study.

Part 1 of the instrument determined the research skills consisted of 33 items that measured five constructs that are deemed important in the conduct of any research activity. These includes information seeking, problem solving, methodology, analysis, writing, and communication skills with responses on every statement with allocated weights as: Strongly Agree - 4, Agree - 3, Disagree - 2, and Strongly Disagree – 1.

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The instruments were pilot tested to another group of students who are not included as the respondents of the study. The reliability coefficient computed using Cronbach Alpha Reliability Coefficient were .949 for the research skills and .973 for the challenges encountered. Cronbach's alpha indicates that all items exhibit high levels of reliability and measure the same concept.

The responses to each item were be summed up and the mean score was computed. To determine the students research skills, the following scale of means and their description were as follows:

Means of Scale	Descriptive
3.40 – 4.0	Excellent
2.80 – 3.39	Very Good
2.20 – 2.79	Good
1.60 – 2.19	Fair
1.00 – 1.59	Poor

Part 2 of the instrument was utilized to determine the problems encountered by the students in doing research.

The responses to each item were summed up and the mean score was computed. To determine the challenges encountered in doing research activities, the following scale of means and their description were as follows:

Means of Scale	Descriptive
3.40 – 4.0	Extremely Serious
2.80 – 3.39	Very Serious
2.20 – 2.79	Moderately Serious
1.60 – 2.19	Slightly Serious
1.00 – 1.59	Not Serious

Permission to conduct the study was obtained from the offices of the SUC President and Vice President for Academic Affairs and channeled through the Dean. When permission will be

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granted, the researcher will distribute the research instrument among the respondents through Google forms.

For descriptive analysis, the data gathered were computed using mean and standard deviation. For inferential statistics, t-test will be used to determine the significance of difference between the research skills when grouped according to sex and One way Analysis of Variance when respondents are grouped according to degree program.

RESULTS AND DISCUSSIONS

DESCRIPTIVE DATA ANALYSIS

Research Skills of Graduate Students

Results revealed that information seeking skills (M = 3.40, SD = .359) of students are excellent. All research involves searching for reliable and credible information that can be analyzed and used to arrive at possible solution. In the present study, graduate students can identify the most appropriate bibliographical resources/references citations and other sources of relevant information and most of them are aware that information can be obtained through various means. They are very good in collecting information from variety of sources to understand the reliability of the information, conducting library research to locate information to support their ideas and using internet search engines to obtain the needed information. The data is shown in Table 1A.

Study of Blummer and Kenton (2014) revealed that education graduate students lack database search skills, including knowledge of resources and search methodologies. Some studies also point to students' anxiety while performing search activities. Research highlights the importance of library skills instruction in improving these individuals' search strategies.

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Table 1A

Students' Information Seeking Skills

Research Skills	M	SD	Description
Information Seeking Skills	3.40	.359	Excellent
I am aware that information can be obtained through various means.	3.71	.487	Excellent
I take time to sort out information.	3.69	.492	Excellent
I like to collect information from variety of sources to understand the reliability of the information.	3.27	.723	Very Good
I can successfully conduct library research to locate information to support my ideas.	3.09	.550	Very Good
I use internet search engines to obtain the needed information for my research.	3.24	.633	Very Good
I can identify the most appropriate bibliographical resources/references citations and other sources of relevant information.	3.37	.540	Very Good

Generally, graduate students have excellent problem solving skills (M = 3.59, SD = .353). These skills involve the ability of breaking a problem down into its parts, thinking critically about each component, analyzing the information gathered and using that information to develop an effective solution. They have outstanding performance in defining a problem, finding its cause, developing, or finding a solution, and applying the solution to solve it. However, there is a need for them to improve their ability to self-organize the expected ways of solving problems; and analyze the resources to conduct research and to independently choose the necessary equipment and materials. The results are shown in Table 1B.

Table 1B

Students' Problem-Solving Skills

Research Skills	M	SD	Description
Problem Solving Skills	3.59	.353	Excellent

I will look for a strategy to find information again to get exactly what I want if it is not successful the first time.	3.69	.464	Excellent
I evaluate the accurateness of the content by reading other sources mentioned by the writer.	3.75	.438	Excellent
I select optimal solutions to the problem and their implementation.	3.59	.496	Excellent
I can self-organize the expected ways of solving problems; and analyze the resources to conduct research	3.15	.672	Very Good
I independently choose the necessary equipment and materials;	3.19	.651	Very Good

Skills in research methodology is an integral part of writing a research paper. Results shown in Table 1C revealed that graduate students have very good methodology skills (M= 3.34, SD = .398). Research methods are specific procedures for collecting and analyzing data. The results imply that students are quite aware of issues relating to the rights of researchers, research subjects, and others who may be affected by the study, choose appropriate research methods, modify the existing ones, and develop new methods based on the objectives of a particular research. In addition, students can use different research methods and can select appropriate methods for the purpose of innovation. Lastly, they understand the procedure for funding, incentives, and evaluation of research, fund for paper presentation and publication

Studies have shown that the learning outcomes of methodology and other related courses on research were not easily attainable by most students in the social science and education during undergraduate and postgraduate programs (Murtonen & Lehtinen 2003). The importance of adoption and application of an effective and inefficient research methodology in the research study arises from the fact that it creates a systematic process of research which leads to the derivation of research outcomes in a planned and efficient manner (Saunders et al. 2009).

Table 1C

Students' Methodology Skills

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Research Skills	M	SD	Description
Methodology Skills	3.34	.398	Very Good
I can use different research methods.	3.32	.524	Very Good
I can select appropriate methods for the purpose of innovation	3.32	.498	Very Good
I choose appropriate research methods, modify the existing ones, and develop new methods based on the objectives of a particular research	3.36	.510	Very Good
I understand the procedure for funding, incentives, and evaluation of research, fund for paper presentation and publication	3.27	.528	Very Good
I demonstrate awareness of issues relating to the rights of researchers, research subjects, and others who may be affected by the study (confidentiality, ethical issues, attribution, copyright, malpractice, ownership, data protection act etc.)	3.39	.517	Very Good

Generally, students' analysis skills (M= 3.35, SD = .382) are very good as indicated in Table 1D. This indicates that they can analyze information and make decisions. They possess adequate skills to draw and interpret appropriate conclusion from results of analysis, describe extensively, analyze intermediate results of scientific research, apply an appropriate statistical tool for data analysis, and utilize information technology appropriately for data management, data analysis and interpretation of data and/or findings. However, they can excellently apply methods of synthesis, critical thinking, and data reduction to locate and understand patterns or connections, identify an appropriate method (quantitative and qualitative) for interpreting and manipulating data and show a broad understanding of the context (national/international level) in which research takes place. According to (Murtonen 2005), research skills on the use of statistics are not easily acquired by the students.

Table 1D

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Analysis Skills

Research Skills	M	SD	Description
Analysis Skills	3.35	.382	Very Good
I can identify an appropriate method (quantitative and qualitative) for interpreting and manipulating data	3.44	.526	Excellent
I apply an appropriate statistical tool for data analysis	3.16	.616	Very Good
I utilize information technology appropriately for data management, data analysis and interpretation of data and/or findings	3.15	.630	Very Good
I apply methods of synthesis, critical thinking, and data reduction to locate and understand patterns or connections.	3.56	.499	Excellent
I show a broad understanding of the context (national/international level) in which research takes place	3.44	.551	Excellent
I can draw and interpret appropriate conclusion from results of analysis	3.34	.507	Very Good
I describe extensively, analyze intermediate results of scientific research;	3.33	.502	Very Good

Writing skills in research is very essential as it enables one to explain quite complex ideas or arguments and have them understood by other people. Table 1E shows that graduate students have strong ability to express ideas, opinions, and thoughts in an easy and clear way as indicated in their excellent writing skills (M = 3.42, SD = .349). This indicates that graduate students can write reports in a professional manner, use appropriate vocabulary and word forms to effectively communicate with the reader, confident in producing a well research-work, and logically support and develop research papers with paraphrases, summaries, and quotations. Though, awareness of copyrights and plagiarism policy and knowledge on how to cite references as per standard procedure needs to be enhanced. The results are presented in Table 1E.

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Table 1E

Students' Writing Skills

Research Skills	M	SD	Description
Writing Skills	3.42	.349	Excellent
I am confident in producing a well research-work worthy of publication	3.47	.528	Excellent
I can write reports in a professional manner			
I can use appropriate vocabulary and word forms to effectively communicate with the reader.	3.55 3.52	.501 .529	Excellent Excellent
I logically support and develop research papers with paraphrases, summaries, and quotations.	3.41	.548	Excellent
I am aware of copyrights and plagiarism policy.			
I know how to cite references as per standard procedure.	3.32	.681	Very Good
	3.27	.664	Very Good

Being able to communicate effectively is one of the most important skills in research writing. Professionals in this digital age must effectively know how to present information to other people clearly, simply and unambiguously, in a way that it can easily be understood. As presented in Table IF, students possess excellent communication skills (M = 3.40, SD = .379). They have the confidence to do presentation, and to disseminate relevant and beneficial information to the target groups. On the other hand, proper training on how to use social media to disseminate research findings as well as students need to be encouraged to present research outcomes at seminars/ conferences/ fora.

Table 1F

Students' Communication Skills

Research Skills	M	SD	Description
Communication Skills	3.40	.379	Excellent
I am able to do my presentation with confidence.	3.57	.498	Excellent
I have skills to disseminate information through various social media.	3.13	.502	Very Good
I can disseminate relevant and beneficial information to the target groups.	3.63	.502	Excellent
I constructively defend research outcomes at seminars/ conferences/ fora.	3.36	.584	Very Good

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Challenges Encountered in Conducting Research

Results revealed that the extremely serious problems encountered by graduate students during their research writing are poor time management (M =3.56, SD = .644), financial problem (M = 3.55, SD = .357), lack of cooperation of respondents (M = 3.52, SD =.575), difficulty in identifying research issue (M=3.44, SD = .598), lack of ICT facilities to analyze the data (M= 3.44, SD = .683), contradicting/ conflicting ideas between researcher and adviser (M = 3.40, SD = .569), and lack of commitment of researcher (M = 3.40, SD = .678).

Poor time management was the most challenging and considered to be the top very serious problem that graduate students faced. According to Chase, et.al (2013), effective time management allows researchers to maintain focus on their work, contributing to research productivity. Thus, improving time management skills is essential to developing and sustaining a successful program of research. Time management involves establishing goals, designing, organizing, assigning, and prioritizing tasks.

Almost all research involves funding. The result is consistent with the study by Hofman and Berg (2000) who reported that lack of funding was a great challenge affecting students to conduct their research.

The results of the present study showed that getting the cooperation of the respondents was also considered a very serious problem. This was supported by the findings of Bocar (2013) that show that the difficulty of the students which contributed a very great extent in conducting their research study is to get a hold on the cooperation of their respondents. All student-researchers who served as the respondents of this study found it as very difficult item.

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Results of the study agreed with Charema (2013) who argued that choosing a topic is probably the most challenging part of carrying out research. He advises that a topic should not be too wide and one should not choose a topic in an area which has been over-researched.

The study also found the lack of ICT facilities as a major challenge affecting postgraduate research. This finding is in line with the observation of Achimuju, Oluwagbemi and Oluwarati (2010) who said that tertiary institutions in Nigeria lack adequate Information and Communication Technology (ICT) infrastructure to effectively tap into the opportunities offered by cyberspace and in most cases, the basic software needed for research are not available and where they are available, they are not accessible.

Success of research writing as a graduate student is a shared responsibility between the researcher and adviser. For research students, the relationship with the research adviser is extremely important. Thus, the two need to work together to advance knowledge and put ideas to work for a productive relationship.

Lack of commitment is also a common and extremely serious problem among researchers. Researchers with low dedication feel less motivated, lacks determination and patience thereby affecting the quality of the work.

Very serious problems include poor stress management (M = 3.52, SD = .644), lack of drive and intention to finish (M = 3.37, SD = .731), limited period in doing research (M = 3.37, SD = .653), insufficient knowledge in formulation of research instrument (M =3.35, SD = .762), lack of communication between researcher and adviser (M = 3.35, SD = .668), lack of confidence of the researcher (M = 3.28, SD = .605), collection, poor library facilities (M = 3.27, SD = .664) and problem on data collection (M = 3.24, SD = .633).

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The results are similar with the findings of Trigwell & Dunbar-Goddet (2005) which noted that lack of funding, library facilities, accommodation and personal problems were the obstacles for thesis work.

Table 2

Challenges in Conducting Research

Challenges	Mean	SD	Description
Lack of cooperation of respondents	3.52	.575	Extremely serious
Poor time management	3.56	.644	Extremely serious
Poor stress management	3.39	.590	Very Serious
Difficulty in identifying research issue	3.44	.598	Extremely serious
Financial problem	3.55	.527	Extremely serious
Lack of confidence of the researcher	3.28	.605	Very Serious
Problem on data collection	3.24	.633	Very Serious
Poor library facilities	3.27	.664	Very Serious
Lack of ICT facilities to analyze the data	3.44	.683	Extremely serious
Insufficient knowledge in formulation of research instrument	3.35	.762	Very Serious
Contradicting/ conflicting ideas between researcher and adviser	3.40	.569	Extremely serious
Lack of commitment of researcher	3.40	.678	Extremely serious
Lack of drive and intention to finish of the researcher	3.37	.731	Very Serious
Limited period in doing research	3.37	.653	Very Serious
Lack of communication between researcher and adviser	3.35	.668	Very Serious

INFERENTIAL DATA ANALYSIS

Significant Differences in Research Skills

As shown in Table 3, t-test results revealed that when grouped according to sex, no significant differences were noted in graduate students' research skills. Specifically, their information seeking skills did not vary (t = .684, p =.496). No variation was observed in their problem solving skills (t = .471, p =.639). Moreover, male, and female students have the same methodology skills (t = .384, p = .702). There is no significant difference students' analysis skills (t = 1.836, p = .070). Writing skills and communication skills of male students are the same with

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the female students, (t = 1. 337, p = .185) and (t = .687, p = .494). The findings were supported by the study of Van Arensbergen et al. (2012) that shows that gendered performance differences seem small to non-existent among starting researchers.

Table 3

t-test Results for the Differences in Research Skills when grouped according to sex

Category	Mean	Df	t-ratio	Sig.
Information Seeking Skills				
Female	3.49	73	.684	.496
Male	3.42			
Problem Solving Skills				
Female	3.60	73	.471	.639
Male	3.56			
Methodology Skills				
Female	3.35	73	.384	.702
Male	3.31			
Analysis Skills				
Female	3.39	73	1.836	.070
Male	3.21			
Writing Skills				
Female	3.45	73	1.337	.185
Male	3.33			
Communication Skills				
Female	3.42	73	.687	.494
Male	3.35			

ANOVA test results in Table 4 revealed that there is a significant difference in the writing skills of graduate students when they are grouped according to course, F (2, 72) = 4 .102, p = .021. When grouped according to course, information seeking skills, F (2, 72)= .275, p = .760, problem solving skills, F(2, 72) = 1.854, p = .164, methodology skills F(2,72) = 2.552, p = .085, analysis skills, F (2,72) = 2.769, p = .069 and communication skills, F (2,72) = 1.856 p = .164 of Doctor of Philosophy in Education, Master in Educational Management and Master in Instructional Leadership students do not significantly vary.

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Table 4

ANOVA Results for the Differences in Research Skills when grouped according to degree

Category	Sum of Squares	df	Mean Square	F	Sig.
Information Seeking Skills					
Between Groups	.088	2	.044	.275	.760
Within Groups	11.483	72	.159		
Total	11.571	74			
Problem Solving Skills					
Between Groups	.452	2	.226	1.854	.164
Within Groups	8.783	72	.122		
Total	9.235	74			
Methodology Skills					
Between Groups	.776	2	.388	2.552	.085
Within Groups	10.945	72	.152		
Total	11.721	74			
Analysis Skills					
Between Groups	.773	2	.387	2.769	.069
Within Groups	10.050	72	.140		
Total	10.823	74			
Writing Skills					
Between Groups	.922	2	.461	4.102*	.021
Within Groups	8.096	72	.112		
Total	9.019	74			
Communication Skills					
Between Groups	.521	2	.260	1.856	.164
Within Groups	10.104	72	.140		
Total	10.625	74			

*$p<.05$

CONCLUSSIONS

In conclusion, graduate students have acquired range of skills necessary for doing research. Graduate students have strong research skills in terms of effectively searching for necessary knowledge, facts, and information. They are excellent problem solvers where they can easily determine the source of the issue and determine effective solution. They can write and communicate clearly, more efficiently and effectively in a manner that can be easily understand as these skills are essential for them to write their paper worthy of presenting in national and

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international fora and publishing in recognized journals. They have high abilities to articulate thoughts and express ideas effectively through written and oral communication. The skills that were not fully mastered are methodological skills and data analytical. It is necessary to further strengthen skills to plan systematic research process, identify appropriate method, analyze and interpret information, understand patterns, make connections and draw conclusions.

Conducting any type of research is a challenging endeavor where researchers often faced several limitations and difficulties. Top among them is poor time management. Other extremely serious challenges are associated with financial problem, cooperation of respondents, difficulty in identifying research issue, lack of ICT facilities to analyze the data, contradicting/ conflicting ideas between researcher and adviser, and lack of commitment of researcher. There is a strong demand of immediate action for the institution to help graduate students overcome these challenges and transform them to major opportunities.

It can be concluded also that the research skills of female graduate students did not vary with that of the male. Grouping students according to degree programs resulted a difference in their writing skills.

RECOMMENDATIONS

In view of the findings, the following recommendations are made:

1. Strengthen research capability of students through institution-sponsored trainings, seminars, and workshops to equip them with the necessary skills in writing publishable research paper.

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2. The College may incorporate research skills development in the curriculum and integrate research-focused classroom activities into courses and programs to enhance learning experiences of students.
3. Standardized Students' Research Manual be institutionalized to provide guiding policies for students undertaking research. These may include guidelines, procedure, and timelines from admission to completion.
4. The institution may secure government agency funding to support research scholarship grant among graduate school students and allocate budget for research fora and publication to provide them with a wide range of research opportunities. Research linkages and networks be formed with local and international research organizations and institutions for funding, sharing information on new approaches and resources and acquiring specialized and new expertise.
5. Assignment of research advisers be done based on qualifications, expertise and paper published. Improve the dissertation/ thesis supervision program to provide guidance to students towards the completion of their research papers.
6. Provision of common facilities such as computers and access to the Internet. Statistical programs and library resources are recommended as these are very essential in conducting research.
7. Awards and incentives be given to graduate students with outstanding paper (dissertation/ thesis). Paper presentation and publication be given recognition.

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