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Research Writing Readiness of Graduate Students in a Philippine State College

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Abstract. The demands of research in graduate school make it imperative to assess the readiness of graduate students to conduct research, whether as a requirement for their subjects, or the type of thesis or dissertation. In this study quantitative and qualitative methods were employed, namely a survey questionnaire, interviews, and document analysis, to examine graduate students' readiness in thesis writing and the difficulties they face. The findings reveal that students often struggle with research and statistical tools in the comprehensive exam. Additionally, the students' ability to articulate their knowledge and ideas significantly affects their exam results. Study findings also indicate that students are only moderately prepared regarding research readiness, scoring lowest in identifying research problems and writing literature reviews. As a result, some students abandon their research projects or cannot complete them on time. The data from the interviews further support the quantitative results, indicating that the students lack research skills and face multiple workloads, which impact their ability to complete their research. To address these challenges, the Graduate School in their research programme should offer seminars on developing research skills for students every semester.

Keywords: research readiness; writing; research skills; graduate students; academic writing

1. Introduction

Research is a crucial component of the academic curriculum in both undergraduate and graduate programmes. Understanding the writing process is critical for all researchers, particularly junior graduate students. Throughout their degree programmes, they are assigned several writing projects (De Faoite et al., 2013; Holzmueller & Pronovost, 2013). At graduate level, research is a requirement for theses in the master's programmes and dissertations for doctorate programmes as well as various subjects, and students are expected not only to possess vast knowledge but also to generate new ideas and explore the link between theory and practice through research. The new policy set by the Commission on Higher Education (CHED) requires of graduate students to

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publish at least one research article before receiving their degree (CHED Memo, No. 15, Series 2019). This memorandum aims to strengthen innovation, research and development. With this directive, graduate students are expected to conduct research during their academic courses, not only when they write theses or dissertations. This puts pressure on graduate students to perform well in research.

The demands of research in graduate school highlight the need to evaluate the student's readiness to conduct research. They may need to familiarize themselves with the necessary skills, such as using information technology, conducting literature reviews, and analysing and interpreting data. Upon enrolment in graduate school, students are expected to gain expertise in their chosen field of study and to participate in creating new knowledge through research. With these expectations, several challenges and problems are faced by graduate students at the Mountain Province State Polytechnic College (MPSPC), a state college in the northern Philippines. Some students complete their academic requirements on time but experience problems with writing their theses or dissertations, while others lack skills to write coherent and cohesive research proposals. These issues are evident in classes that require students to produce research proposals or complete research papers. Given these persistent problems, it is imperative to assess the research readiness of students and provide appropriate interventions to address these concerns.

This study explored the research readiness of the MPSPC graduate students in the hope of creating a basis for the Graduate School to design a development programme to be implemented in every academic year, for improving graduate students' research skills. In the study we considered the research profile of the students to establish whether they ever had attended any seminars or training, either provided by the institution or from outside, or if they ever had conducted research during their residency in the Graduate School. Another criterion for determining the research readiness of students, is the results of their comprehensive examination since three areas are evaluated: the foundational or major courses, research knowledge, and presentation. Some academic courses in the Graduate School require of students to submit a research proposal or completed research report as a final paper in their courses. Hence, this is also included. When students are ready to conduct research, the success rate in finishing theses or dissertations is high, and they complete their research on time. With the recurring problems MPSPC graduate students face regarding research report writing, this study was aimed at exploring the research readiness of graduate students, especially when they embark on thesis writing. Hence, this study endeavoured to answer the following questions:

1. How do graduate students perform in the comprehensive exams?
2. What is the graduate students' level of research writing skills?
3. What are the challenges that graduate students encounter in conducting research?

2. Review of Related Literature

A graduate student's academic journey culminates in major research report writing, namely thesis or dissertation writing. This major research work is

considered a traditional passage to post-graduate education (Burke & Snead, 2014). Before this, however, the student must pass a comprehensive oral or written examination that tests the graduate student's ability to relate theory learned to practice. The inability to pass the examination satisfactorily ensues in the student not proceeding to thesis or dissertation writing. In the same way, the inability to satisfactorily submit and defend a thesis or dissertation results in the student not getting awarded the degree. It is not a surprise that graduate students experience high levels of stress and anxiety during these stages of their academic journey (Casanova, 2021; Kuther, 2019; Burke & Snead, 2014). This negative attitude toward research potentially may affect their acquisition of research knowledge and skills (Kakupa, 2019). Ultimately, this affects the process they undergo as they embark on actual research writing.

2.1. Comprehensive Examination

Comprehensive examinations cover a broad base of material, including course knowledge, knowledge of the proposed research area, and general knowledge of the field (Kuther, 2019). Students sit for this examination at the end of the coursework, and passing it allows the student to move on to the next level of study: thesis or dissertation writing. Burke and Snead (2014) cited numerous studies on the advantage of conducting comprehensive examinations at the end of programme assessment. For instance, it allows students to demonstrate mastery of knowledge, literature, and research in a discipline. It also hones their problem-solving abilities and fosters creative, critical thinking.

Conversely, issues on reliability and validity, the vagueness of purpose, vague guidance on how to prepare, the considerable study time and effort, and the high stress and anxiety levels induced by the process are among the disadvantages of comprehensive examinations. In their study, Burke and Snead (2014) found that the academic staff realised that students did not test well in the comprehensive examination. Although it was relatively standardized for students and across terms, it was not a good measure of student success in the programme.

Whereas plenty of studies can be cited on what comprehensive examinations are and how students feel about these, overwhelmingly few studies took cognisance of the areas in the examinations in which graduate students fared well and fared poorly. This study was aimed at contributing to the field as it had the aim of identifying and understanding the areas or domains in which graduate students fail in comprehensive examinations. According to Bittner (2019), graduate students' failure to convey their understanding of their intended research is the reason for them failing the comprehensive examination. Aligned with that, is the negative impact of students not being able to view their research in the broader context of their field. Bittner (2019) also notes that being unable to answer simple questions related to the research field, and putting in minimal effort carve the path to failing the exam.

2.2. Preparedness for Research Writing

Several studies identified specific areas in research writing where graduate students show weaknesses. For example, Meerah (2010) investigated graduate students' preparedness in terms of five lines of research skills: pre-search, search,

quantitative skills, interpretative skills, and report writing. Up to the point of writing a thesis or dissertation, graduate students are assumed to already have the basic skills in research writing. However, studies by Kakupa (2019) and Meerah (2010) revealed that graduate students still have to attain the level of research skills required for searching and sifting through the information, and analytical skills to process data. Graduate students must have high-level information skills to complete a major research project like a thesis or dissertation. Though almost everyone uses the internet frequently, some students are not aware of the web-based packages that university libraries provide for all students.

Students also were not confident about the quantitative research skills, that is, their statistical analysis ability required in the research process. They felt anxious dealing with statistics. On a more positive note, Meerah (2010) found that graduate students were fairly satisfied with their ability to write their reports but had difficulty reading in English. The study of Casanova (2021), on the other hand, showed the high performance of master's students in the various stages of writing up research, from formulating a research title to formulating the conclusions and recommendations. Though the author noted that the students had done well in formulating the significance of the study, the hypotheses of the study, the definition of terms, and the statement of the problem, the students still needed improvement in developing research tools and instruments and analysing the data. Meanwhile, in the study by Manchishi et al. (2015), it is noted that master's students committed mistakes in writing their thesis. These include broad and unclear topics, failure to state the problem, failure to identify the gap in the literature, using the wrong methodology, misunderstanding research terminologies, wrong citation style, and plagiarism.

2.3. Challenges in Writing Research

Research writing comes with problems for graduate students who have to go through the process. They relate several challenges that they have to overcome should they wish to finish their degrees. The most common challenges that graduate students face are academic language, topic selection difficulties, time management, selection of suitable research methodologies, the identification of under-researched problems or topics of interest, lack of motivation, and relationships with supervisors (Casanova, 2021; Turmudi, 2020; Lestari, 2020; Puspita, 2019; Qasem & Zayid, 2019; Manchishi et al., 2015). According to Casanova (2021), graduate students ranked some statements as moderate challenges, such as, sourcing relevant material for the research topic, the complexity of the topic, the inadequacy of funds to support the study, and the nature of their jobs or tight schedules in their place of work. Studies by Manchishi et al. (2015), Tiwari (2019), and Bayona-Oré and Bazan (2020) revealed that among the challenges graduate students encounter in the research process are negative comments from supervisors and the unavailability of advisers for consultations. The study of Komba (2016) also revealed the challenge of inappropriately presenting different research chapters and a lack of academic writing skills.

El-Freihat (2021) categorized challenges encountered by graduate students into three domains: infrastructure, communication, and time management. Although the study participants rated all items under the three domains as moderate, some

were consistent with the findings of previous studies. Specifically, students hold that the absence of scientific laboratories, the non-provision of scientific materials for experimentation, and the dearth of equipment essential for completing the thesis, were critical challenges under infrastructure. Although in the setting of undergraduate students, Altikriti (2022) found similar challenges that students face in writing their research papers as a prerequisite for graduation. The study findings revealed that the most important problems were a lack of academic prerequisites, namely teaching the techniques of how to write a research paper, a lack of knowledge of the research writing process, a lack of resources, and a lack of methodology.

However, given the challenges highlighted in several studies, interventions also were suggested in these studies. For one, students should be profoundly involved in writing research papers apart from their theses or dissertations. Altikriti (2022) further expounds that students should be introduced to collecting data from authentic resources to deviate from mostly depending on the internet for general information. This also relates to not conveying the assumption that graduate students already know the research rubrics. Meerah (2010) contends that to address the enthusiasm of graduate students and help them overcome challenges associated with research writing, university supervisors must closely pay attention to students' research abilities and preferably present research clinics that offer specialist advice and aids. Casanova (2021) also posits possible steps such as linking mentoring research advisers with budding researchers, conducting seminars, and supporting graduate students in mastering coping skills to handle challenges frequently encountered.

2.4. Conceptual Framework of the Study

This study was grounded on the frameworks developed by Pival et al. (2008) and Ivanitskaya et al. (2004). Pival et al. (2008) designed their study framework after reviewing existing literature on research preparation, research self-efficacy, research motivation, research anxiety, and factors influencing graduate student success. According to them, the concept *research preparedness* is a complex construct comprising multiple interconnected components, such as research self-efficacy, research motivation, research anxiety, and other aspects contributing to graduate student success. Other characteristics, such as academic preparedness, time management skills, and social support also are recognized as contributing to graduate student performance and research readiness. Additionally, Ivanitskaya et al. (2004) posit that research readiness is a multidimensional construct considering individual and contextual elements influencing students' research preparedness. Knowledge, skills, and attitudes are identified as three major components of research preparedness in the conceptual framework. The conceptual framework recognizes contextual elements that contribute to students' research preparation in addition to these individual factors. These characteristics include institutional support, mentoring, and access to research resources.

These frameworks are essential to this study because they provide a clear perspective on the complicated nature of research readiness and the numerous aspects that contribute to it. It presents a comprehensive approach to measuring

research preparedness in terms of individual and environmental characteristics. The framework recognizes the complex nature of research preparedness, and gives a more nuanced view of the factors contributing to it by considering individual and contextual influences.

3. Method

This research used qualitative and quantitative methods. A quantitative method was used to identify the research skills of the respondents using a survey questionnaire. The qualitative method (interview) was used to look into the performance of the graduate students during their comprehensive examination and the challenges faced by the students in research writing.

3.1 Research Context

This study was conducted at the Mountain Province State Polytechnic College (MPSPC) Graduate School during the academic year 2021-2022. MPSPC is the only state college in the Mountain Province, Philippines. The MPSPC Graduate School offers ten graduate programmes: seven master's programmes and three doctorate programmes. However, only programmes with enrollees in Thesis Writing 1 and Dissertation Writing 1 were considered. These were the Master of Arts in Education, Master's of Arts in Teaching English, Master of Public Administration, and Master of Business Administration. There was no enrollee in Dissertation Writing 1.

3.2 Participants in the Study

The participants in the study were 18 students from the five master's programmes enrolled for Thesis Writing 1 during the academic year 2021-2022. Their profiles indicated that the participants had experience reporting group research at undergraduate level, since it was a major requirement for the course. As to seminars and training, those in the Master's of Arts in Education and Master's of Arts in Teaching English programmes attended one training session on reporting on action research, provided by the Department of Education. However, when asked about their output, only a few had submitted action research proposals to their department. Regarding the Master in Public Administration and Master in Business Administration programmes, the participants did not attend seminars in writing research reports, since it was not part of their work. Their experience in writing research reports was limited to submitting a research proposal when were enrolled in the Research Methods programme. As for the requirements from their other major courses, they were required to submit term papers, reports, and others, but not research reports.

3.3 Instrumentation

Document analysis was used to examine the comprehensive exam results of the students enrolled in Thesis Writing 1. This study also used a self-survey questionnaire (Appendix 1) that included questions about students' research experience during their residency in the institution, the seminars related to research writing they attended, and their perceived levels of confidence about their skills for thesis-based research. For the perceived levels of their research writing skills, a 4-point Likert-type scale was used, ranging from *Not able* (1),

Slightly Able (2), *Able* (3), and *Very much Able* (4). The content of the questionnaire was validated by two research experts from the institution. Based on the validators' corrections and suggestions, the questionnaire indicators were revised. The interview was used to inquire about the challenges encountered by respondents in reporting on research. The interview with the participants was conducted during the students' consultations with their course professor in Thesis Writing. Consent to access their comprehensive exam result was also acquired from the participants before the interview proceeded.

3.4 Data Gathering Procedure

Before the questionnaire was administered, its content was validated by two research experts in the institution to establish whether the questions captured the topic under investigation. Double-barrelled, confusing, and leading questions were dropped/amended. After the questionnaire had been content-validated, it was pilot-tested with students enrolled in the subject of Methods of Research. The pilot data were collected and analysed. After the validation stage, letters of request to conduct the study were sent to the Dean of the Graduate School and the course facilitator in Thesis Writing for approval. The questionnaire was handed out to the respondents after they had signed the informed consent form. An interview followed after the initial results from the quantitative data were summarized. This helped the researchers to ask questions or obtain clarification from the participants. For the documents needed in this study, like the comprehensive exam results, a letter of request was sent to the Dean of the Graduate School and the participants for approval. Only the information needed for the study was extracted from the comprehensive exam results. The gathered quantitative and qualitative data were collated and analysed.

3.5 Treatment of Data

Content analysis was used to answer the first research question, which delved into the comprehensive exam results of the participants. To answer the second question, the data gathered from the questionnaire were statistically treated using the weighted mean. The weighted mean used the following scales:

Table 1. Mean range, verbal interpretation, and description

Mean Range	Qualitative Descriptor	Description
3.26-4.0	Very Much Able (VMA)	I am very confident in this skill and ready to undertake a thesis/dissertation.
2.51-3.25	Able (A)	I have a workable knowledge of this skill, and I am ready to undertake a thesis/dissertation.
1.76-2.50	Slightly Able (SA)	I know a little about this skill, but I have reservations about whether I can undertake a thesis/dissertation or not.
1-1.75	Not Able (NA)	I don't know about this, and I am not ready to undertake thesis/dissertation.

To answer the third research question, the data gathered from the interview was analysed qualitatively, employing thematic analysis. The data from the interviews

were transcribed. The researchers created a set of initial codes. The initial codes were then collated and the codes were grouped into themes. Similar themes were merged during the review of themes.

4. Results

At the peak of their academic journey, graduate students are mandated to take the comprehensive exam before a panel. When they pass such an exam, they are allowed to take thesis writing or dissertation writing. However, these culminating requirements prove to be more gruelling for the graduate students than they expected.

4.1 Performance of Graduate Students in Comprehensive Exam

The MPSPC Graduate School comprehensive exam assesses students in three areas: Foundation and Major Courses, Research and Statistics, and Delivery. In the Foundation and Major Courses, students are tested on their comprehensive knowledge of the subject matter. They are expected to demonstrate confidence by accurately and completely explaining key concepts and theories, and applying these to real-world scenarios with insightful interpretations.

Students must be able to demonstrate the relationship between theories and their field of specialization. Another important area of the comprehensive exam is Research and Statistics, where students are evaluated on their understanding of research processes, statistical tools, and data analysis and interpretation. This section also assesses the student's readiness to undertake research. Lastly, students are graded on Delivery, including clear articulation, vocabulary, grammar, and appearance in a formal academic setting.

Findings reveal that students often find the area of Research and Statistics problematic. Based on the panels' comments and recommendations, students are advised to improve their knowledge of research processes and statistical tools. Some students lack familiarity with the components of the research process and are unable to explain their intended study or the appropriate tools for data gathering and analysis. In such cases, the panel provides hypothetical problems and asks students to identify the research problem, design, and statistical tools. This approach works for some students, but those who cannot understand the concepts still struggle. Interviews with participants showed that this is due to them having forgotten the key points from the Research Methods and Statistics courses, which they typically take in their first year of graduate school.

Students who fail in the Foundation and Major Courses often cannot articulate their ideas clearly and/or cannot establish links with their field of specialization. In such cases, the written examination focuses on the specific subjects that caused them problems. Lastly, students who lack confidence in expressing their ideas clearly are impacted in the delivery area and the other two areas. In most cases, these students are asked to take the written examination.

4.2. Level of Research Writing Skills of Graduate Students

Table 2. Level of research writing skills of Graduate Students

No.	Research Writing Skills	Mean	QD
	Determining and writing research problem		
1	Conceptualize a researchable problem	2.41	SA
2	Determine a problem that can be the subject of action research	2.41	SA
3	Differentiate a descriptive problem from an inferential problem	1.94	SA
4	Choose between a quantitative and qualitative study	2.47	SA
5	Write the statement of the problem		
	A. General Problem	2.24	SA
	B. Specific Problems	2.18	SA
		2.27	SA
	Writing the Review of Literature		
6	Review literature related to the proposed study	2.41	SA
7	Identify research problems to be studied from the literature review	2.12	SA
8	Prepare a framework for the study based on reviewed literature	2.35	SA
9	Draw a paradigm of the study showing the relationship of variables in the study	2.39	SA
		2.32	SA
	Writing the research methodology		
10	Choose the appropriate research design for the study	2.24	SA
11	Choose the location of the study	2.75	A
12	Identify the population of the study	2.71	A
13	Decide whether to use sampling or total enumeration in determining the respondents/ participants of the study	2.41	SA
14	Compute sampling size, if needed	1.47	NA
15	Choose the appropriate sampling technique	2.53	A
16	Select the data-gathering procedures to be used in the study	2.59	A
17	Prepare the data-gathering tool needed to find answers to the problems stated for the study	2.29	SA
18	Gather the needed data	2.65	A
		2.40	SA
	Interpreting data		
19	Identify the appropriate statistical tool to be used in the study when needed	1.76	SA
20	Present gathered data using the appropriate method (text, table, graph/chart)	2.35	SA
21	Interpret gathered data	2.00	SA
22	Analyse results	2.53	A
23	Formulate conclusions	2.47	SA
24	Forward recommendations that can be implemented	2.41	SA
		2.25	SA
	Referencing and citation		
25	Write the reference list using the APA format	2.47	SA
26	Cite sources in writing the manuscript	2.35	SA

		2.41	SA
	Report Writing		
27	Prepare a publishable article based on the results of the study	2.00	SA
	Presentation		
28	Prepare ICT-based material to present the results.	2.53	A
29	Present results of the study to an audience	2.29	SA
		2.41	SA
	Grand Mean	2.30	SA

The questionnaire consisted of 29 questions, categorized into the following areas: Determining and Formulating the Research Problem, Writing the Review of Literature, Selecting and describing the Research Methodology, Interpreting Data, Referencing and Citation, and Report Writing. It is essential for graduate students to master these skills before writing a research paper successfully. The results show that graduate students possess a "Slightly Able" (SA) level of research proficiency, with a grand mean of 2.30. The weighted mean of each category showed that determining and writing the research problem had the lowest mean score of 2.27, according to the participants' self-assessment. Many students found it challenging to develop a specific research topic at the start of the writing process and they required guidance from their professor. During the title defence of their theses, some research problems were rephrased, removed, or rejected, requiring students to present a new title at a later date. The problematic nature of identifying a potential research problem was also observed among students who previously found this a stumbling block during their comprehensive exams.

Another area of research skills students struggle with is *Writing a review of related literature*, as evidenced by their self-assessment, rendering a mean score of 2.32. Participants agreed that accessing information was not an issue due to the availability of the internet, but the challenge lay in sorting, evaluating, and synthesizing research reports. This was also reflected in their proposal defence manuscripts, as the panel often commented on the section on the review of the literature. Eight of the 18 participants were unable to propose a thesis in the first semester of the academic year 2021-2022. This is a recurring problem in the MPSPC Graduate School. Formulating a research problem and writing a literature review are the first stages of a research proposal, but many students drop the subject due to problems they experience when attempting to write the rest of the paper.

The results of *Writing the research methodology* showed that graduate students could choose and describe the location of their study, identify the population, choose appropriate sampling techniques, select data gathering methods, and explain procedures to be used. However, students experience problems with computing the sample size. The second lowest mean was choosing the appropriate design for the study, regardless of whether the tools used were quantitative or qualitative. The participants also admitted confusion when having to select the appropriate data-gathering tool, such as a questionnaire, interview, or documents, due to their inability to see the relationship between their research

questions and the research design and instruments. During the proposal defence, panel members often asked for clarification on the data to be collected, and students often could not provide satisfactory answers. It is worth mentioning the consistently low means across various indicators in research skills, such as not being able to differentiate between a descriptive and an inferential problem, computing sample size, and identifying the appropriate statistical tool to be used. This consistency confirms the students' low mastery of statistics, as evidenced by their incompetence during comprehensive exams.

Concerning interpretation of data, the results show that the participants had a slightly above-average ability to make statements in this category. However, the data indicate that the lowest mean is found in the participants' ability to identify the appropriate statistical tool for their study. Participants reported that this task was difficult, especially for those who chose a quantitative design. They also stated that they depended on their statisticians heavily. When it comes to interpreting and analysing data, the participants indicated that they could interpret the data, but their ability to analyse data was only slightly above average. During the interview, the participants maintained that data analysis was easier for them than interpretation, as the latter involved explaining and giving meaning to the analysed data. In their interpretation of the data collected, the participants found it difficult to integrate the data collected with the literature they previously had reviewed. They often only gave tabular presentations of data, without explaining what the figures or statements in the tables represented.

Graduate students have difficulty articulating the findings of their studies, whether quantitative or qualitative. This problem is especially prominent in qualitative studies. The results also indicated that the participants could barely formulate conclusions and recommendations. During their final defence, the panel members often ask participants to revise their conclusions and recommendations, as they are not based on the study findings. Additionally, the participants had difficulty in linking their findings to their conclusions. Most of the time, their conclusions merely were a repetition of their results.

Regarding referencing and citations, the results indicated that the participants had a 'slight ability'. MPSPC uses the APA 7th edition format for referencing and citations, but the participants admitted that they were confused or lacked knowledge about this format. Proper referencing and citation are important in the evaluation of student research manuscripts, and many students' scores are negatively affected because they do not properly cite their sources, and some sources are missing from the reference section of the manuscript. The results show that citation has a lower mean compared to referencing. This is also evident in the research manuscripts, where most sources were not properly cited or, in some cases, not cited at all. Some sources were copied, rephrased, or summarized without proper citation. Participants admitted that when reading other sources, they copied and included the exact statements in their papers. In the reference section, panel members asked the graduate students to revise their reference list based on their citations in the manuscript.

Regarding report writing, the results indicated that the participants were "slightly able", with a mean score of two (2). When asked if they could prepare a publishable article from their study results, the participants admitted that they still required guidance in this area. Despite guidelines being available to them as a requirement in the MPSPC Graduate School in addition to their thesis, they still experienced a need for further guidance in writing a research article. They explained that they found it difficult to condense the 100 or more pages of a thesis into just 10-15 pages for a publishable article. The problems they face when attempting to write a publishable article is one of the reasons why students face delays in submitting their final papers, as they need to revise their research paper and prepare a publishable article simultaneously.

4.3 Challenges that Graduate Students Encounter in Conducting Research

4.3.1 Deficiency in Research Skills

The study results highlighted a persistent deficiency in the research skills of the respondents, despite having taken research subjects as part of their master's programme. The participants struggled with identifying their research topic, conducting a comprehensive literature review, understanding research methodologies, revising their research manuscripts, and they performed poorly in research and statistics during comprehensive exams. Many students are employed in organizations that do not emphasize the importance of research, leading them to view a thesis or writing as merely an academic requirement rather than an opportunity for intellectual growth. Furthermore, the College lacks mechanisms to develop students' research skills.

4.3.2 Multiple Workload of the Advisers and the Advisees

The respondents' inability to meet deadlines in submitting their research outputs is a recurring issue evident in their enrolment in Thesis Writing. This is particularly true for those working full-time in government agencies, like teachers enrolled in Graduate School. The respondents expressed difficulty in balancing their heavy teaching load and other responsibilities with their graduate studies. Their work obligations sometimes require them to render service even during class days. The same challenges are faced by thesis advisers who also have a full-time teaching load alongside their advising responsibilities. Subsequently, there is a lack of available time for either the adviser or the advisee to meet and work together on the research project, resulting in a delay in completing the task at hand. These challenges that the respondents shared, align with the findings of El-Freihat (2021), which suggest that communication difficulties have significantly impacted students' progress in completing their research. Requests for changing advisers also have been reported. The main reason for this issue is that some advisers fail to provide adequate mentorship and guidance, while some advisees rely excessively on their advisers to do the work.

In light of the above-mentioned findings, the conclusion has been reached that the new Policy, Standards, and Guidelines of CHED that requires of students to conduct and publish research poses great pressure to the students. Yet this expectation of CHED will not be realized if the graduate students continuously fare poorly in their research endeavours. The CMO emphasizes its goal to contribute to knowledge acquisition through generation, sharing, and exchange

processes. To do this, means honing the graduate students' research skills so that they can conduct research to complete their thesis or dissertation confidently. The CMO and the results of this study on the readiness of graduate students to conduct research show a discrepancy between the expectations of the Commission and the realities of the students' research skills. Although a limitation of this study is that it does not propose measures that may rectify the situation, but it does emphasize what may be done for the students in light of these findings.

5. Discussion

5.1 Performance of Graduate Students in Comprehensive Exam

The results of this study indicate that many students face difficulties in studying Research and Statistics. As suggested by the panel's feedback and advice, students should enhance their understanding of research methods and statistical instruments. Some students lack knowledge of the key elements of research and find it difficult to articulate their study objectives or select suitable techniques for collecting and analysing data. The lack of prior knowledge or expertise in research methodology and statistical analysis is a significant challenge graduate students face. These findings corroborate with those of Onwuegbuzie and Leech (2005), who found that many graduate students lacked awareness of fundamental research principles and procedures, which is only one study that has brought this issue to light. Relative to these findings is the study of Bakkalbasi et al. (2006). They found that many graduate students had problems comprehending the assumptions behind various statistical tests and in using statistical software. Choosing acceptable study ideas and methodologies can be difficult for some graduate students. These difficulties include challenges in formulating research questions and hypotheses, adopting suitable sampling techniques, and selecting the proper statistical tests for data analysis. This is similar to the findings of Karsli and Ucar (2014) and Akyürek and Afacan (2018), namely that many graduate students found it difficult to choose suitable research designs and methodologies; and had limited knowledge of research methodology, which also affected their research process negatively.

Students who fail in the Foundation and Major Courses often struggle with articulating their ideas and showing clear connections to their field of specialization. Students who lack confidence in expressing their ideas clearly are impacted not just in the delivery area but also in other areas. Graduate students frequently struggle with a lack of confidence in properly explaining their views. Relative to this finding, Hadi and Muhammad (2019) found that students' self-efficacy, learning motivation, and study environment have a significant influence on their academic performance. Additionally, the study found that self-efficacy had the strongest direct effect on academic performance. Comprehensive exams carrying such high stakes pose

still another difficulty. Graduate students could experience pressure to succeed in these tests, which can heighten anxiety and make it harder for them to express their views clearly.

5.2. Level of Research Writing Skills of Graduate Students

The study revealed that graduate students have a grand mean research proficiency score of 2.30, considered "Slightly Able." This implies that the respondents had difficulty in writing research reports as they had not been prepared to do this. This finding corroborates with Meerah's (2010) study that examined graduate students' research abilities and discovered that many lacked the investigative and analytical abilities to finish a sizable research assignment. The over-reliance on the internet was said to be the cause of poor information-seeking abilities. Despite having studied the subject in depth throughout their undergraduate and doctoral degrees, Meerah also discovered that some participants needed refresher training in research techniques. Graduate students need to develop their research skills, notably in finding and analysing material (Kakupa, 2019). Studies by Meerah (2010), Casanova (2021), and Manchishi et al. (2015) identified weaknesses in graduate students' research writing abilities. According to Meerah's research (2010), graduate students were generally satisfied with their ability to write reports, but they struggled to read in English and needed advanced mathematical and information-seeking skills. Master's students did well in several stages of research writing, but according to Casanova, they still needed to improve in terms of creating research tools and instruments and conducting data analysis. Manchishi et al. (2015) noted certain common errors master's students made in their theses, including selecting wide and confusing subjects, failure to state the problem, and plagiarism. Shahsavari and Kourepaz (2020) found that most postgraduate students were not aware of the importance of the literature review. They believed that the literature review section should only summarize other works. The study indicated that many students did not know how to develop and apply their literature review findings.

5.3 Challenges that Graduate Students Encounter in Conducting Research

5.3.1 *Deficiency in Research Skills*

The findings of this study are in line with other studies that have shown that graduate students struggle with various aspects of the research process, from determining a researchable problem to writing their results and findings. This lack of research skills significantly burdens graduate students, hindering their progress toward completing their degrees. This finding corroborates the studies of Casanova (2021); Turmudi (2020); Lestari (2020); Puspita (2019); Qasem and Zayid (2019); and Manchishi et al. (2015) who found that some of the challenges that graduate students face in reporting research, include selecting appropriate research methodologies, and identifying under-researched problems or topics of interest. Komba (2016) also found that a lack of academic writing skills is one of the challenges that graduate students experience in writing research reports. Mayyas and Alzoubi (2022) found that a considerable lack of awareness and knowledge of manuscript writing advice and various scientific misconduct practices are some of the difficulties students experience when endeavouring to produce research publications. Furthermore, there are various impediments to producing papers, such as a lack of mentorship support, a lack of research experience throughout undergraduate studies, and a lack of training workshops. According to Hussain et al. (2020), training workshops are one of the most successful ways to increase students' writing skills and ethical awareness. Their study investigated the influence of workshops on researchers' writing skills and

capabilities and discovered that the training workshops substantially impacted the participants' knowledge. Arrazola et al. (2020) found the significance of mentorship in the quality of research manuscripts of students.

5.3.2 Multiple Workload of the Advisers and the Advisees

This study found that respondents' inability to meet deadlines in submitting their research outputs is a recurring issue in *Thesis Writing*, particularly for those who work full-time in government agencies. The same challenge was revealed in Casanova's (2021) study, showing that graduate students regarded the nature of a job or a busy work schedule as a moderate challenge. Additionally, communication difficulties have been shown to significantly impact students' progress in completing their research. According to a recent study by El-Freihat (2021), time management is a problem when reporting research. The respondents in this survey maintained that they experienced difficulty in contacting their academic supervisors during a crisis. They believed that the supervisors did not get in touch with them when there was a disagreement. They also maintained that no set hours existed for communicating with the supervisors, which was another obstacle to their progress in producing their research papers. The supervisors also had heavy workloads. One of the main challenges for the students was that they could not contact the supervisors. This hampered the student's path toward writing research reports, as it caused a conflict between the student's schedule and the supervisor's, which ensued in students finding it difficult to arrange scheduled meetings with the supervisor.

6. Conclusion

The results of this study indicate that graduate students find it difficult to master the skills required to write up (report) research. These difficulties, along with the challenges usually faced in the research reporting process, make it challenging to complete theses successfully. The findings have significant implications for institutions, highlighting the importance of providing support and resources to graduate students to help them develop the necessary research skills. The findings also imply the need to consider incorporating research as a required component of their courses, with close monitoring and guidance provided by academic staff members. Additionally, the results emphasise the need for the Graduate School to offer seminars to graduate students over the duration of a semester, during which time mentoring groups can be established. In these groups, faculty members can guide and support students as they navigate the research process, whether it is aimed at a thesis or at satisfying an academic requirement. It is important to note that these mentoring groups would serve as additional support, but cannot replace the student advisor in completing research reports (theses).

7. References

- Akyürek, E. & Afacan, Ö. (2018). Problems Encountered during the Scientific Research Process in Graduate Education: The Institute of Educational Sciences. *Higher Education Studies*, 8, 47-57.
- Altikriti, S. (2022). Challenges facing Jordanian undergraduates in writing graduation research paper. *Journal of Language and Linguistic Studies*, 18(1), 58-67. <https://doi.org/10.52462/jlls.166>

- Arrazola, J., Polster, M., Etkind, P., Moran, J. V. & Vogt, R. C. (2020). Lessons learned from an intensive writing training course for Applied Epidemiologists. *Public Health Reports*, 135(4), 428-434. <https://doi.org/10.1177/0033354920932659>
- Bakkalbasi, N., Bauer, K., Glover, J. & Wang, L. (2006). Three options for citation tracking: Google Scholar, Scopus and Web of Science. *Biomedical Digital Libraries*, 3(1), 7. <https://doi.org/10.1186/1742-5581-3-7>
- Bayona-Oré, S. & Bazan, C. (2020). Why students find it difficult to finish their theses? *Journal of Turkish Science Education*, 17(4), 591-602. <https://doi.org/10.36681/tused.2020.47>
- Bittner, E. (2019). Reasons to fail a Ph.D. student during the comprehensive exam [Weblog comment]. <https://www.quora.com/For-professors-what-are-the-reasons-you-failed-a-Ph-D-student-during-the-comprehensive-exam>
- Burke, S. & Snead, J. (2014). Faculty opinions on the use of master's degree end of programme assessments. *Journal of Education for Library and Information Science*, 55(1), 26-39.
- Casanova, V. (2021). Predictors of graduate students' research performance in the Philippine state-run higher education institution. *Journal of Education and Learning*, 10(5), 170-176. <https://doi.org/10.5539/jel.v10n5p170>
- CHED Memo (Commission on Higher Education Memorandum) (2019). Order No 15, Series 2019. Policies, standards, and guidelines for graduate programs. <https://ched.gov.ph/wp-content/uploads/CMO-No.-15-Series-of-2019-%E2%80%93-Policies-Standards-and-Guidelines-for-Graduate-Programs-Updated.pdf>
- De Faoite, D., Bakota, B., Staresinic, M., Kopljar, M., Cvjetko, I. & Dobric, I. (2013). Awareness, attitudes, and perceptions of Croatian-based orthopedic and trauma surgeons toward scientific manuscripts, publishing internationally and medical writing. Results of an online questionnaire. *Collegium Anthropologicum*, 37(1), 165-168.
- El-Freihat S. M. (2021). Challenges facing students in writing theses at the Jordanian universities. *Cypriot Journal of Educational Science*. 16(6), 3266-3277. <https://doi.org/10.18844/cjes.v16i6.6321>
- Hadi, N.U. & Muhammad, B. (2019). Factors Influencing Postgraduate Students' Performance: A high order top-down structural equation modelling approach. *Educational Sciences: Theory & Practice*.
- Holzmueller, C. G. & Pronovost, P. J. (2013). Organizing a manuscript reporting quality improvement or patient safety research. *BMJ Quality & Safety*, 22(9), 777-785.
- Hussain, M., Rehman, R. & Baig, M. (2020). Manuscript writing and publication workshop: An invoking pilot study on enhancing cognitive research capabilities in health sciences institutes of Pakistan. *Cureus*, 12(6), e8802.
- Ivanitskaya, L.V., Laus, R. & Casey, A.M. (2004). Research Readiness Self-Assessment. *Journal of Library Administration*, 41, 167 - 183. https://doi.org/10.1300/J111v41n01_13
- Kakupa, P. (2019). Students' attitudes towards research: A study of graduate education students at a Chinese normal university. *Educational Process: International Journal*, 8(2), 97-110.
- Karsli, E. & Ucar, M. (2014). Difficulties encountered by graduate students in their research. *Procedia - Social and Behavioral Sciences*, 116, 3103-3107.
- Komba, S. (2016). Challenges of writing theses and dissertations among postgraduate students in Tanzanian higher learning institutions. *International Journal of Research Studies in Education*, 5(3), 71-80. <https://doi.org/10.5861/ijrse.2015.1280>.
- Kuther, T. (2019, March 24). A note about Master's and Doctoral Comprehensive Exams [Blog post]. <https://www.thoughtco.com/masters-and-doctoral-students-comprehensive-examinations-1686465>

- Lestari, D. (2020). An analysis of students' difficulties in writing an undergraduate thesis at English education program of Muhammadiyah University of Bengkulu. *Journal of English Education and Applied Linguistics*, 9(1), 17-29. <https://doi.org/10.24127/pj.v9i1.2588>
- Manchishi, P., Ndhlovu, D. & Mwanza, D. (2015). Common mistakes committed and challenges faced in research proposal writing by University of Zambia postgraduate students. *International Journal of Humanities, Social Sciences and Education (IJHSSE)*, 2(3), 126-138. <https://www.arcjournals.org/pdfs/ijhsse/v2-i3/14.pdf>
- Mayyas, F. & Alzoubi, K. (2022). Awareness and knowledge of manuscript writing and research integrity: A cross-sectional survey among graduate students. *Heliyon*, 8(11), E11447. <https://doi.org/10.1016/j.heliyon.2022.e11447>
- Meerah, T. (2010). Readiness of preparing postgraduate students in pursuit of their doctoral programme. *Procedia Social and Behavioral Sciences*, 9, 184-188. <https://doi.org/10.1016/j.sbspro.2010.12.133>
- Onwuegbuzie, A. J. & Leech, N.L. (2005). On becoming a pragmatic researcher: The importance of combining quantitative and qualitative research methodologies. *International Journal of Social Research Methodology: Theory & Practice*, 8(5), 375-387. <https://psycnet.apa.org/doi/10.1080/13645570500402447>
- Pival, P.R., Lock, J.V. & Hunter, M.T. (2008). Assessing research readiness of graduate students in distance programs. *Public Services Quarterly*, 3, 1 - 18. <https://doi.org/10.1080/15228950802110403>
- Puspita, C. (2019). Factors affecting students' difficulties in writing theses. 3rd English Language and Literature International Conference (ELLiC) Proceedings, Universitas Muhammadiyah Semarang, 27 April 2018, Central Java, Indonesia. <https://media.neliti.com/media/publications/206945-the>
- Qasem, F. & Zayid, E. (2019). The challenges and problems faced by students in the early stage of writing research projects in L2, University of Bisha, Saudi Arabia. *European Journal of Special Education Research*, 4(1), 32-47. <https://doi.org/10.5281/zenodo.2557036>
- Shahsavari, Z. & Kourepaz, H. (2020) Postgraduate students' difficulties in writing their theses literature review. *Cogent Education*, 7:1, 1784620, DOI: 10.1080/2331186X.2020.1784620
- Tiwari, H. (2019). Writing theses in English education: Challenges faced by students. *Journal of NELTA Gandaki*, 1(1), 45-52. <https://doi.org/10.3126/jong.v1i0.24458>
- Turmudi, D. (2020). English scholarly publishing activities in the industrial revolution 4.0: What, Why, and How? *English Language Teaching Educational Journal*, 3(1), 52-62. <https://doi.org/10.12928/eltej.v3i1.1890>

Appendix 1

Survey Questionnaire

Dear Respondent:

In an effort to determine how the Graduate School of Mt. Province State Polytechnic College will be able to help its students enrolled in Thesis writing and Dissertation Writing courses in conducting research studies, the Graduate School would like to survey the research skills of its students. In this regard, we would like to request that you fill up the following questionnaire. Rest assured that the data gathered will be solely used for research. Thank you for your time.

Survey of Research Skills

I. **Profile of Respondent.** Please provide the information requested.

Name: (optional) _____

Doctorate program: _____

Master's program: _____

Bachelor's Degree: _____

Agency/ Company: _____

Status of employment (*Regular, Part-time*): _____

Years of experience: _____

Seminars Attended related to research in the past five (5) years

1. _____
2. _____
3. _____
4. _____
5. _____

Research Experience (Write any research studies, individual or collaborative, that you have conducted before or during your residency in MPSPC)

II. Self-Survey on Research Skills

Level of Research Skills. Please indicate your level of skill using the following scale on the table.

4 - Very much able - I am very confident in this skill and able to teach others

3 - Able - I have workable knowledge on this skill and able to use it in doing a research study

2 - Slightly able - I know a little about this skill but not confident to put it to use

1 - Not able - I don't know about this; thus, not able to do it

Research Writing Skills	4	3	2	1
Determining and writing research problem				
1. Conceptualize a researchable problem				
2. Determine a problem that can be the subject of an action research				
3. Differentiate a descriptive problem from an inferential problem				

4. Choose between a quantitative and qualitative study to conduct				
5. Write the statement of the problem				
A. General Problem				
B. Specific Problems				
Writing the Review of Literature				
6. Review literature related to the proposed study				
7. Identify research problems to be studied from the literature review				
8. Prepare a framework for the study based on reviewed literature				
9. Draw a paradigm of the study showing the relationship of variables in the study				
Writing the research methodology				
10. Choose the appropriate research design for the study				
11. Choose the locality of the study				
12. Identify the population of the study				
13. Decide whether to use sampling or total enumeration in determining the respondents/participants of the study				
14. Compute sampling size, if needed				
15. Choose the appropriate sampling technique				
16. Enumerate the data gathering procedures to be undertaken in the study				
17. Prepare the data gathering tool needed to answer the problems of the study				
18. Gather the needed data				
Interpreting data				
19. Identify the appropriate statistical tool to be used in the study when needed				
20. Present gathered data using the appropriate method (text, table, graph/chart)				
21. Interpret gathered data				
22. Analyse results				
23. Formulate conclusions				
24. Make recommendations which can be implemented				
Referencing and citation				
25. Write the reference list using the APA format				
26. Cite sources in writing the manuscript				
Report Writing				
27. Prepare a publishable article from the results of the study				
Presentation				
28. Prepare ICT-based material to present the results				
29. Present results of the study to an audience				

For the Interview part:

1. What are the challenges that you encountered in writing up research?
2. What specific activities would you like the department to offer to improve your skills in research?