

Research Writing Skills of Teachers in Selected Public Schools in the City of Taguig: Basis for Capability Training Program

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Abstract. This study investigated the level of teachers' research writing skills to develop a capability training program targeted to enhance teachers' writing skills. It specifically assessed teachers' research writing skills in terms of formulation of research problem, data analysis and interpretation, research process, and recommendation and output. Utilizing a descriptive quantitative design of research, data were gathered from 219 teacher-respondents from three (3) public elementary schools in Taguig City. The findings of the study revealed that in terms of the demographic profile of the teacher-respondents, the majority of the teacher-respondents are Teacher I; have been in the service for 1-5 years; with units in Masters; and have attended trainings mostly relevant to writing a research title. In terms of assessment of teachers' level of research writing skills, the teacher-respondents said that they are all capable in all indicators of research writing skills such as formulation of research problem, data analysis and interpretation, research process, and recommendation and output. In terms of challenges encountered in research writing, selecting the topic and making the title suitable for a specific research interest ranked first, while difficulty in determining the scale of a questionnaire ranked the 10th. Meanwhile, in terms of relationship between the profile of the respondents and their level of research writing skills, only teachers' educational attainment is not significantly related to all of the four (4) components of teachers' level of research writing skills. The study highlights the need for an intensive training on how to formulate research problems and find correlations and differences of research variables in the research problems; a separate training and learning session to capacitate teachers in crafting research instrument and the processes involved in making the research instrument reliable and valid; the need for the Division of Taguig City and Pateros to address the difficulty of the teachers in crafting research output by providing and sending teachers to trainings solely for crafting research output and its compositions; more trainings and seminars relevant to crafting research titles must be developed so that teachers will have knowledge on how to choose and craft research titles; the research capability training program prepared by the researcher may be tried and adapted by the Division of Taguig City and Pateros and the Department of Education (DepEd) in general to see its workability and effectiveness; and this study can be replicated and the future researchers may embark on a more comprehensive study utilizing more schools and respondents to negate or affirm the findings of the current study.

Keywords: Research; Writing Skills; Challenges; Research Problem; Capable

Introduction

Research has been a critical demand among teachers worldwide as a baseline of their initiative to address classroom issues and at the same time as a requirement to complete professional growth. It has been a universal claim that research is the work of a curious mind wanting to find solution to a problem or question.

One of the vital areas in many fields, particularly in education, is research. It is known to be refining the workings and lives of individuals as it primarily focuses on every individual's search for knowledge and on improving the quality of the knowledge itself. It is considered a systematic effort to knowledge acquisition in all disciplines; therefore, it provides probable solutions to problems scientifically and methodically.

Research findings are personal considerations, reflective teaching, and sound decision-making. Research provides facts as bases for the realization of society's needs. That is to say; all personal development-related activities are research-based.

According to Balangon (2022), research is also essential to specific programs and projects in agriculture, communications, transportation, trade, industry, and commerce. The growth of each of these depends on successful and reliable research and feasibility studies. The world started to enjoy technological advancements because of innovations that continuously improve through various research. It makes people's lives easier and more comfortable.

In the Philippines, despite all sectors' efforts to put into force the production of a variety of researches, it is still a struggle, most especially for some educational institutions, to provide a culture of research and amend the situation. The analysis of every academic professional's knowledge and skills, as well as the rapid and efficient trend in instructional technology and innovative approaches and teaching pedagogies, is critical to the study's success, especially now that responsible research among educational institutions is now required and necessitates continuous evaluation, resulting in the formation of a teacher-research community.

The Governance of Basic Education Act of 2001 (RA 9155) mandates the Department of Education to enact policies and mechanisms through which the delivery of quality primary education may be continuously improved. Chapter 1, Section 7 includes among the responsibilities of DepEd across all governance levels the undertaking of "educational research and studies" that will serve as one of the bases for necessary reforms and policy development. In support of the Department's policy development process, research agenda, and policy and program development and implementation, the Department of Education (DepEd) continue to promote and strengthen the culture of research in primary education (D.O. 16, 2017).

Previously mentioned, research is an indispensable area in the field of education. Therefore, research has primarily become part of graduate degree programs and basic education curricula, such as in Senior High School. Schools advise considering research-based learnings and practices as potential innovations are discovered and start, and the conduct of research is teaching. Therefore, schools serve as a training ground for future practitioners and innovators. It is then the school's responsibility to equip all learners with knowledge and skills for research (Abun et al., 2022).

Before it's mandated, research is not a primordial mandate in basic education to conduct research as it is only secondary to the teaching tasks of teachers. However, nowadays, the Department of Education (DepEd) has a strong drive to motivate teachers to conduct research (Gonzales et al., 2020).

Gomez and Catan (2021) agree that the importance of doing research in the public school system is now becoming greatly recognized. The conduct of research is greatly encouraged among public school teachers in the elementary and secondary levels. The need to conduct research is reflected in the Basic Education Governance Act of 2001 created by the Department of Education (DepEd). The Act recognizes the great importance of research in the management and administration of the basic education system. The department's research thrusts are strategically geared towards supporting its mission "to protect and promote the right of every Filipino to quality, equitable, culture-based, and complete basic education..." (Department of Education, 2013a). It acknowledges the importance of research-based evidence as a basis for taking actions and decisions in ensuring the welfare and efficient learning of all students (Department of Education, 2021).

There are various efforts made by DepEd to strengthen the culture of research. These include the implementation of the Basic Education Research Agenda (BERA). BERA guides DepEd and its stakeholders in the conduct of education research and the utilization of research results in the planning, policy, and program development of the department (Department of Education, 2023). Included in the research agenda is a list of different themes that serve as priority research areas or topics that classroom teachers could focus on conducting research. These identified research topics are expected to generate results that will fill in critical knowledge gaps and improve the quality and delivery of basic education in the Philippines. These are also consistent with the DepEd's mission and vision and with the local and international developments in the education sector, particularly the Sustainable Development Goals and Education 2030 (Department of Education, 2023).

Several directives had been instituted by the DepEd to provide funding and improve research culture (DepEd Order (DO) No. 24 s. 2010; DO No. 43 s. 2015). The DO No 4 s. of 2015 provides guidelines in the utilization of the Basic Education Research Fund. Also, DepEd Order No. 16, s. 2017 provides Research Management Guidelines (RMG). Further, the policy mentions research as one of the critical performance indicators in the new Result-based Performance Management System (RPMS), hence, it becomes a part of the teacher's tasks. The DO No. 39 s. 2016 promulgates the Basic Education Research Agenda (BERA), which sets different research priorities. Despite these mandates, teachers still face challenges in doing research.

Some of these challenges include lack of time, lack of knowledge in conducting research, lack of training, lack of technical assistance, limited funding and resources, lack of interest, difficulty in choosing a

topic, lack of confidence in English writing, fear of rejection, and poor health condition (Gomez & Catan, 2021).

It is the end view of this research to assess the teachers' level of research writing skills and the challenges they encountered in research writing. In this manner, a research capability training will be crafted to improve the teachers' research writing skills and so that the quantity of research submitted to the Division of Taguig City and Pateros will also increase. Most importantly, this research is conducted by the researcher to fully understand and eventually learn the skills that suffice the characteristics of a publishable research. This study also hopes to contribute to the growing literature on research writing and serves as a reference of the future researchers who plan to delve on a wider scope of research interests.

Research Questions

This study aimed to determine the research writing skills of teachers in selected public schools in the city of Taguig. Inputs served as basis in crafting a research capability training program.

Specifically, this study sought to answer the following questions:

1. What is the demographic profile of the respondents in terms of:
 - 1.1 Position;
 - 1.2 Length of Service;
 - 1.3 Highest Educational Attainment; and
 - 1.4 Relevant Seminars and Trainings on Research?
2. What is the level of research writing skills of the respondents in terms of:
 - 2.1 Formulation of Research Problem;
 - 2.2 Data Analysis and Interpretation;
 - 2.3 Research Process; and
 - 2.4 Recommendation and Output?
3. What are the challenges encountered by the respondents in research writing?
4. Is there a significant relationship between the teachers' level of research writing skills when the respondents are grouped according to their profile?
5. Based on the findings of the study, what research capability training program may be proposed?

Scope and Delimitation of the Study

This research was limited to the assessment of the level of research writing skills of the teachers in terms of formulation of research problem, data analysis and interpretation, research process, and recommendation and output. Furthermore, it focused on the 219 teachers of selected schools such as Maharlika Integrated School, Tenement Elementary School, and Upper Bicutan Elementary School Academic Year 2023-2024.

Literature Review

Research Writing Skills/Competences

Marushkevych et al. (2022) define research competence as an important component of the specialist's professionalism, as well as a condition of its development and implementation, the readiness of the future specialist for professional activity. It is no coincidence that one of the objectives of higher education is to prepare future specialists for research activities. Involving students and teachers in fundamental research will not only preserve well-known scientific schools but also raise a new generation of scientists. They added that research competence is the basis for the development of intellectual, communicative, and design skills, and develops the critical thinking, and creative abilities of students. Research competence should be considered a key competence. The main function of educational and research activities and their results is the intensification of students' cognitive activity, the development of the desire to learn and transform themselves, and the surrounding reality according to the laws of scientific research. Research knowledge and skills are one of the main characteristics of the level of a future specialist's professional maturity.

Research has been categorized as a key for developing countries. Meanwhile, with the challenge of globalization in education, teachers need to improve their knowledge and skills to enhance, improve, and explore their teaching practices. Many studies on teachers' competencies focus on the teachers' role in the classroom rather than teachers' competencies. Teachers' competencies have been broadening concerning reform studies in education, development of teacher education, scientific results of educational science, and other fields. The goals of education change very quickly in response to the demands of the era, which require more capability (Bar-Yam et al., 2021).

As Amirova et al. (2020) noted, one of the main current goals of the countries is to achieve a high level of quality higher education, which meets the needs of the labor market, the problems of industrial and innovative development of the country, identity and relevant international best practices in education.

The competency-based approach in education is generally understood as an approach that focuses not on the content but on the results of education expressed in the form of competencies (Azizov & Azizov, 2018). Research is considered one of the parameters of success of higher educational institutions worldwide (Marin et al., 2019). Therefore, it is important to develop research competence in future specialists in higher educational institutions.

Research competence is interpreted by Aleksandrova and Sluchayna (2018) as the ability to conduct independent research and provide its results. Research competence is both the main task of the development of professional and methodological competence and a means of developing other professional, cultural, and general competencies (Gorshkova, 2018).

The development of student research skills at the university is associated with the improvement of skills related to critical thinking (Kartika et al., 2019), problem solving (Missingham et al., 2020), and employment skills (Bandaranaike & Willison, 2019), especially those who become employed graduates (Willison et al., 2018). A recent large-scale multidisciplinary study found that graduates felt that their "general" skills were well developed through undergraduate programs. However, employers' data indicate dissatisfaction with the general skills of graduates (Jackson, 2019). Active learning has significantly improved participants' overall research skills, as demonstrated by improved performance at the final exams, as well as individual writing and research skills (Alghamdi & Deraney, 2018). The success of students' research activity is largely determined by personal qualities, which include criticism and self-criticism, dissatisfaction with the results achieved, strong intelligence, strong ability to control their actions, the ability to unconventional solutions to theoretical and experimental problems, observation, honesty, openness and the courage to defend their views and positions, own vision of the problem, independence, initiative, and responsibility, etc. (Vaganova et al., 2018). Research competence involves the following abilities: - see and formulate the problem, determine the aim of the research (Supriyanto et al., 2019); - understand and justify the topicality, novelty, theoretical and practical significance of the study (Bobkova et al., 2021); - put forward and substantiate the hypotheses, make the plan of research (Karlibaeva, 2021); - independently learn new research methods, acquire new knowledge; - conduct research and present the results of their work (Predtechensky & Fomina, 2018); - have academic writing skills - critically study the references (Thongsong, Yantim, & Jai-Areesuthiwa, 2020). Given the study (Albareda-Tiana et al., 2018; Mills & Gay, 2019), we can conclude: - the research competence of the future specialist is an integral part of professional competence; - is a set of personality traits; - involves certain research knowledge, skills and abilities; - implies readiness to carry out research activities and implement research results in the practical work.

The development of research competencies is crucial to accelerate knowledge acquisition, educational innovation, and successful professional development (Reyes & Glasserman, 2020). The importance of the development of research competence urges the task of finding and implementing new effective and modern forms of organization in the educational process. However, the teaching methods that teachers currently use seem far from reality and do not contribute to the development of research competence (Ávalos et al., 2019). So, based on the analysis of literature and identified problems, we formulated the hypothesis that the development of students' research competence in the study of the humanities will be effective if the educational process involves innovative forms of theoretical training (during lectures and seminars).

Formulation of Research Problem

Aransiola (2024) defines research problem as the focal point of any academic inquiry. It is a concise and well-defined statement that outlines the specific issue or question that the research aims to address. This research problem usually sets the tone for the entire study and provides you, the researcher, with a clear purpose and a clear direction on how to go about conducting your research.

There are two ways you can consider what the purpose of your research problem is. The first way is that the research problem helps you define the scope of your study and break down what you should focus on in the research. The essence of this is to ensure that you embark on a relevant study and also easily manage it. The second way is that having a research problem helps you develop a step-by-step guide in your research exploration and execution. It directs your efforts and determines the type of data you need to collect and analyze. Furthermore, a well-developed research problem is really important because it contributes to the credibility and validity of your study.

Real (2022) conducted a research assessing the competency level of the research students in writing their research paper. Results revealed that students had difficulty in citing related literature and studies; writing the research questions in the Statement of the Problem; interpreting data; and formulating the

research title. The recalibration of the research curriculum and integration of research parts with other subjects are recommended.

In the study of Ratan et al. (2019), they affirmed that formulation of research question (RQ) is an essentiality before starting any research. It aims to explore an existing uncertainty in an area of concern and points to a need for deliberate investigation. It is, therefore, pertinent to formulate a good RQ. Their study aimed to discuss the process of formulation of RQ with stepwise approach. The characteristics of good RQ are expressed by acronym "FINERMAPS" expanded as feasible, interesting, novel, ethical, relevant, manageable, appropriate, potential value, publishability, and systematic. A RQ can address different formats depending on the aspect to be evaluated. Based on this, there can be different types of RQ such as based on the existence of the phenomenon, description and classification, composition, relationship, comparative, and causality. To develop a RQ, one needs to begin by identifying the subject of interest and then do preliminary research on that subject. The researcher then defines what still needs to be known in that particular subject and assesses the implied questions. After narrowing the focus and scope of the research subject, researcher frames a RQ and then evaluates it. Thus, conception to formulation of RQ is very systematic process and has to be performed meticulously as research guided by such question can have wider impact in the field of social and health research by leading to formulation of policies for the benefit of larger population.

A good research question (RQ) forms backbone of a good research, which in turn is vital in unraveling mysteries of nature and giving insight into a problem. RQ identifies the problem to be studied and guides to the methodology. It leads to building up of an appropriate hypothesis (Hs). Hence, RQ aims to explore an existing uncertainty in an area of concern and points to a need for deliberate investigation. A good RQ helps support a focused arguable thesis and construction of a logical argument. Hence, formulation of a good RQ is undoubtedly one of the first critical steps in the research process, especially in the field of social and health research, where the systematic generation of knowledge that can be used to promote, restore, maintain, and/or protect health of individuals and populations. Basically, the research can be classified as action, applied, basic, clinical, empirical, administrative, theoretical, or qualitative or quantitative research, depending on its purpose (Kishore et al., 2019).

Data Analysis and Interpretation

Let's Talk Science (2022) define analyzing data as a process of looking for patterns in data that has been collected through inquiry and figuring out about what the patterns might mean. Interpreting the data is a process of trying to explain the patterns that were discovered. Analyzing and interpreting data may not always be a simple linear process. Sometimes, more data is needed or the data needs to be recorded and displayed in a different way to discover the patterns.

Analyzing & interpreting are important because it supports the development of understanding about the relationship between parts and the whole (e.g., graphic displays of data are more than a collection of individual parts but represent a whole picture of some kind of information) provides opportunities for students to interpret and synthesize information gained through observations supports students' ability to make inferences, draw conclusions and develop theories.

Calzon (2024) defines data interpretation as the process of using diverse analytical methods to review data and arrive at relevant conclusions. The interpretation of data helps researchers to categorize, manipulate, and summarize the information in order to answer critical questions.

The importance of data interpretation is evident, and this is why it needs to be done properly. Data is very likely to arrive from multiple sources and has a tendency to enter the analysis process with haphazard ordering. Data analysis tends to be extremely subjective. That is to say, the nature and goal of interpretation will vary from business to business, likely correlating to the type of data being analyzed. While there are several types of processes that are implemented based on the nature of individual data, the two broadest and most common categories are "quantitative and qualitative analysis."

Furthermore, data analysis is described "as the process of bringing order, structure, and meaning" to the collected data. The data analysis aims to unearth patterns or regularities by observing, exploring, organizing, transforming, and modeling the collected data.

It is a methodical approach to apply statistical techniques for describing, exhibiting, and evaluating the data. It helps in driving meaningful insights, form conclusions, and support the decisions making process. This process of ordering, summarizing data is also to get answers to questions to test if the hypothesis holds. Exploratory data analysis is a huge part of data analysis. It is to understand and discover the relationships between the variables present within the data (Analytixlabs, 2020).

Data analysis and interpretation involve the critical task of attributing significance to gathered data and deducing conclusions and implications from the findings. The methodology for analyzing data varies depending on the nature of the data collected. Nonetheless, aligning with the assessment's objectives and questions serve as a guiding framework for organizing the data and directing the analysis.

Research Process

Research is integral to any learning institution in securing learning goals. An institution's inability to produce and publish high-quality research is a strong indication that higher learning is not supported (Padagas & Hajan, 2020). Research quality has always been the main concern of every academic institution.

To promote quality research papers, the research writing process should be considered. As the students' research outputs are crucial, keeping track of their performance is a key ingredient in the quality of research papers. As consumers and readers of research, students are valuable sources of information to quality improvements. Students today dread the word research in their academic years. It was reported that students have challenges in writing a full research paper (Tabuena, 2020), and writing issues are due to lack of writing skill and lack of confidence in writing research papers (Wilang et al., 2018).

Females outperform males in terms of writing fluency and text quality. Females' superiority in writing fluency and text quality is a consequence of their superiority in English proficiency (Al-Saadi, 2020). In addition, it was found that girls consistently outperformed boys in writing composition (Cordeiro et al., 2018).

In formulating a research title, students need to consider the set of guidelines set by the institutions. These guidelines include the originality, relevance, and feasibility of the topic. Students are supposed to select a topic so specialized and important that even previous researchers have neglected it (Pardede, 2018).

Despite the importance of citation, students struggle with it since they are unaware of its relevance and lack of understanding of its significance in their work. The most common errors in the citation are found in content and format. Moreover, the sign of plagiarism and evidence of students' insufficient critical thinking are also seen in students research writing (Rezeki, 2018).

Furthermore, the data shows that there is no significant difference in writing the parts of research paper in terms of sex. Both sexes, male and female, found it easy to write the parts of the research paper. It is contrary to some of the studies that females outperform males in terms of writing fluency and text quality (Al-Saadi, 2020); Cordeiro et al., 2018).

Froehlich et al. (2021) opined that competence in research methods contributes to (future) teachers' professionalism.

Recommendation and Output

According to Edubirdie (2024), the conclusion and recommendations sections are crucial components of a research paper. They mark the end of your research, leave a lasting impression on your readers, and should be approached with great care. No wonder many students search for information about how to write recommendations in research papers. Explore this comprehensive guide to infuse your content with thoughtfulness and coherence, thereby elevating the impact of your research paper.

Additionally, before you start learning how to write recommendations in a research paper, the first thing is to clarify the meaning of this term. It is a significant element in the research paper structure, as it is critical to your discussion section and conclusion. While conducting research and analyzing gathered data, you may come across ideas or results that only partially align with the scope of your research topic. Alternatively, your findings offer possible implications or causal relationships between the aspects not covered in existing research.

Nair (2024) points out that research recommendations are suggestions or advice provided to researchers to guide their study on a specific topic. They are typically given by experts in the field. Research recommendations are more action-oriented and provide specific guidance for decision-makers, unlike implications that are broader and focus on the broader significance and consequences of the research findings. However, both are crucial components of a research study.

Research recommendations play a crucial role in guiding scholars and researchers toward fruitful avenues of exploration. In an era marked by rapid technological advancements and an ever-expanding knowledge base, refining the process of generating research recommendations becomes imperative.

Similarly, George (2023) said that recommendations in research are a crucial component of your discussion section and the conclusion of your thesis, dissertation, or research paper.

As you conduct your research and analyze the data you collected, perhaps there are ideas or results that don't quite fit the scope of your research topic. Or, maybe your results suggest that there are further implications of your results or the causal relationships between previously-studied variables than covered in extant research.

The University of Mississippi (2018) emphasized that recommendations in the research paper should be the objective of the research. Therefore at least one of your objectives of the paper is to provide recommendations to the parties associated or the parties that will benefit from your research. For example, to encourage higher employee engagement HR department should make strategies that invest in the well-being of employees. Additionally, the HR department should also collect regular feedback through online

surveys; they should come from your review and analysis, for example, it was observed that coaches interviewed were associated with the club were working with the club from the past 2-3 years only.

This shows that the attrition rate of coaches is high and therefore clubs should work on reducing the turnover of coaches; they should also come from the data you have analyzed. For example, the research found that people over 65 years of age are at greater risk of social isolation. Therefore, it is recommended that policies that are made for combating social isolation should target this specific group; they should also come from observation. For example, it is observed that Lenovo's income is stable and gross revenue has displayed a negative turn. Therefore, the company should analyze its marketing and branding strategy; they should be written in the order of priority. The most important recommendations for decision-makers should come first. However, if the recommendations are of equal importance, then it should come in the sequence in which the topic is approached in the research, if associated with different categories then you should categorize them. For example, you have separate recommendations for policymakers, educators, and administrators then you can categorize the recommendations; and they should come purely from your research. For example, you have written research on the impact on HR strategies on motivation. However, nowhere you have discussed Reward and recognition. Then you should not give recommendations for using rewards and recognition measures to boost employee motivation.

Writing Research Literature and Studies

In a research conducted by Real et al. (2022), the data revealed that in writing the research paper, respondents answered that citing related literature and related studies are difficult tasks for them. The data were gathered during the pandemic and quarantine days. Libraries were closed and most resources were found on the internet. The unseemly and unprecedented occurrences of the pandemic have greatly affected the wide population, causing such detrimental effects to students.

In the advent of technology, respondents had the leverage to search the internet in the comfort of their home. Aside from looking for valid open access journals where students can see the recent related literature and studies, they also need to cite properly, and by doing that, they need to follow the proper format and structure. Beginner researchers found it difficult to review related studies. References are easily found on the internet, but the credible material related to education and research activities are questionable (Javed, 2019).

Young's (2018) findings suggest that authors note relevant literature extensively in the background of the research but use the same literature sparingly in the discussion of their results. Further, in the discussion of findings, the literature was limited to confirming what was already known and did not show how the new studies reported contributing to knowledge. It is also supported by Arsyad et al. (2018) that reviewing and citing relevant literature is essential in academic writing. The need to cite appropriate literature in academic writing is also required because others have previously developed knowledge on all topics. The main purpose of an academic text is to extend readers' understanding of a particular topic. It is almost impossible for an author to help boost readers' knowledge on a specific topic without discussing the available expertise in the literature. In fact, according to Senivongse et al. (2018), a systematic literature review approach provides rigor that can help reduce researcher bias while also allowing the definition of a precise scope of review, as well as a clear explanation of selection criteria, to find and review all studies that are relevant to the search definitions. It effectively supports a qualitative, quantitative, or mixed technique as a research method. Conclusively, conceptual frameworks can significantly contribute to social science research (Waldt, 2020).

UCSanDiego (2018) points out that when writing a research paper on a specific topic, you will often need to include an overview of any prior research that has been conducted on that topic. For example, if your research paper is describing an experiment on fear conditioning, then you will probably need to provide an overview of prior research on fear conditioning. That overview is typically known as a literature review.

Ulz (2022) made a point that a review of related literature (a.k.a RRL in research) is a comprehensive review of the existing literature pertaining to a specific topic or research question. An effective review provides the reader with an organized analysis and synthesis of the existing knowledge about a subject. With the increasing amount of new information being disseminated every day, conducting a review of related literature is becoming more difficult and the purpose of review of related literature is clearer than ever.

Meanwhile, Sachdev (2018) categorized literature reviews as experimental and theoretical. Experimental literature review basically refers to surveying all the information available on a particular topic and critically analyzing the gaps that need to be worked upon. In this sense, it essentially forms the first experiment of any research project. The more extensive the review, the more precise and systematic the research project will be. Therefore, it is one of the most critical parts of one's research.

Enago Academy (2023) said that literature review is both a process and a product. It involves searching within a defined source of information related to your research topic and then creating a comprehensive summary of the pertinent research on your topic. It is most certainly over a topic that has further scope for developing a research question.

Challenges in Writing Research

Tarrayo et al. (2019), that research engagement among teachers was somehow constrained by factors such as crowded teaching timetables or heavy workload, lack of funding or financial support, difficulty in understanding (e.g., the language) published research, and the challenge of contextualizing research findings for classroom use.

A problem like "lack of time due to workloads assigned to them" conforms to Vásquez's (2018) findings that heavy teaching loads are why teachers do not do research. It is also supported by Ellis and Loughland (2018) that lack of time and time pressures relative to classroom teaching and doing research restricted the teachers in Singapore and NSW from having excellent and quality research studies. At present, this problem is still experienced by the public-school teachers despite the existence of the law like Philippine Civil Service Commission (CSC)

Resolution No.080096 issued in 2008, that teachers are required to render six (6) hours of actual classroom teaching per day within the school premises, while the remaining two (2) hours be utilized to doing teaching-related tasks outside the school premises ("DepEd continues to reduce teachers' workload," 2020).

The study of Rubi (2021) investigated conducted to investigate the teacher's research competence of selected SUCs in the Philippines. The findings of the study revealed that teachers are much competent in doing research. Besides, their attitudes were optimistic despite the difficulties they have encountered in doing research works. Furthermore, it was found out that most teachers are motivated in doing researches for various reasons. Hence, the paper concluded that most teachers exceed some expectations in being a researcher and strive to conduct research despite the challenges. However, the paper recommended that further research capability programs are implemented and various avenues and opportunities for teachers to be presented to continue to engage themselves with research and further help society and the country.

The study of Sitompul and Anditasari (2022) attempted to investigate the students' difficulties in research writing involving 39 master's students majoring in English Language Education at one of the universities in Malang. The results revealed that many master's students encountered difficulties in most three aspects. First, one-third of 39 students perceived difficulty in the introduction part, such as selecting a research topic and formulating research problems. Second, the students also affirmed that they found challenging in the research method part, such as the dilemma of selecting an appropriate method, determining the sample, and designing instruments in which the results were slightly different from the students who were in the level of disagreement. However, finding appropriate instruments, determining the questionnaire scale, and collecting data were less problematic. Third, the study highlighted that the students found it difficult to process data, sort the data the results, and conclude the results by elaborating on research implications. This study concluded that master's students still faced difficulties although they have learned research at undergraduate and master's levels. It was recommended that further studies should intensively investigate students' difficulties and factors in research in linguistics.

This is similar to the study of Amuthanayaki and Prasad (2020) in which the results show that more or less 70 percent of the researchers who are writing research or conducting research projects is one of the predominant challenges for them. The study explored different and general challenges during writing the research projects such as: lack of understanding of the subject, complicatedness in deciding the topic, lack of good quality knowledge of the methodology, inability of finding modern, specialized and interrelated references, lack of moment in time, and research guiding. The study also attempts to give some suitable suggestions for developing the practice of writing research projects.

Hashmi (2022) conducted a study to investigate the challenges faced by research students during thesis writing. Results revealed that it is challenging for research students to select the topic for research, develop focus on study, acquiring knowledge of information sources, developing online searching skills, developing data analysis skills and time management skills. They also faced problems in data collection and using inferential statistics. They also faced problem in interpreting data. They indicated the need for trainings on how to analyze and interpret data, using SPSS software, developing questionnaire/interview guide, citation management and literature searching skills. The results of the study are useful for research supervisors and newly research students to focus on identified areas and obtain essential research skills useful during thesis writing.

A qualitative study conducted by Campillan (2019) delved into the challenges experienced by the students in writing their undergraduate thesis through an analysis of the reflections/narratives submitted by students currently enrolled in Thesis Writing. Results revealed that students had difficulties in formulating their research problem, writing their review of related literature, sampling of their respondents, crafting the research instruments, transcribing interviews, video production delays, among others. They also had problems in coordination, plagiarism processing, and other difficulties such as time constraints, absence of research partner, personal issues, and other conflicts. Further, this paper explored approaches to assist the students in overcoming such challenges.

Methodology

Research Design

This study utilized a descriptive-quantitative research method. Sirisilla (2023) defines descriptive research design as a research type that provides a detailed and accurate picture of the characteristics and behaviors of a particular population or subject. By observing and collecting data on a given topic, descriptive research helps researchers gain a deeper understanding of a specific issue and provides valuable insights that can inform future studies. The design is most appropriate to the present study because its general objective is to assess the teachers' level of research writing skills and the challenges they encountered research writing in selected elementary schools in the Division of Taguig City and Pateros. The Quantitative Survey part of the study was based on SOP 1, 2, 3 and 4. Statement of the problem #1 was answered through the use of the statistical tool frequency and percentage; statement of the problem #2 and #3 were answered through the use of weighted mean; while statement of the problem #4 was answered through the use of Chi-square.

Research Locale

The study was conducted in some selected schools in the Division of Taguig City and Pateros during the school year 2023-2024. Meanwhile, the choice of the schools was based on the distance of the schools to the school where the researcher is teaching. Most importantly, these schools already submitted research at least in the school level. These schools were Maharlika Integrated School (School A) with forty-eight (48) teacher-respondents, Tenement Elementary School (School B) with ninety (90) teacher-respondents, and Upper Bicutan Elementary School (School C) with eighty-one (81) teacher-respondents, a total of 219 respondents.

Research Participants

The respondents were the two-hundred nineteen (219) teachers from the selected elementary schools in the Division of Taguig City and Pateros. These teachers were from schools who have very few entries in the annual Action/Basic Research Festival of the Division of Taguig City and Pateros.

Research Instrument

The main data-gathering instrument used in this study was a researcher-made survey questionnaire which assessed the teachers' research writing skills. A draft of the questionnaire was presented to the adviser for corrections and suggestions. The questionnaire was validated by experts before the actual survey was conducted. The survey questionnaire had three parts. The first part dealt with the profile of the respondents (position, length of service, highest educational attainment, and related seminars and trainings on research. The second part contained the indicators that assessed the teachers' level of research writing skills in terms of formulation of research problem, data analysis and interpretation, research process, and recommendation and output. Finally, the third part dealt with the challenges encountered by the respondents in research writing. Furthermore, the instruments were distributed to thirty (30) teachers who are not the study's teacher-respondents but have the same characteristics of the respondents for pilot testing prior to distribution to the target respondents. Cronbach alpha, α (or coefficient alpha), which is a measure of internal consistency, was used for reliability testing. If the questionnaire obtained an alpha value of equal or greater than 0.9, the consistency is excellent; 0.8 means good; 0.7 means acceptable; 0.6 means questionable; 0.5 means poor; and less than 0.5 means unacceptable. In this research, the Cronbach alpha of the variables of teachers' level of research writing skills is 0.9 which means that the consistency of the questionnaire is excellent and the Cronbach alpha of the variables of challenges encountered by teachers in research writing is also 0.9 which means the consistency is also excellent. In determining the level of teachers' research writing skills, the five-point, Likert Scale was used such as: 5 which means Highly Capable (HC); 4 means Capable (C); 3 means Moderately Capable (MC); 2 means Slightly Capable (SC); and 1 means Not Capable (NC). On the other hand, in determining the challenges encountered by the participants in research writing, the five-point, Likert Scale was used such as: 5 which means Highly Serious (HS), 4 means Serious (S), 3 means Moderately Serious (MS), 2 means Slightly Serious (SS), and 1 means Not Serious (NS).

Data Gathering Procedure

Upon the approval of the study, the researcher secured permission to conduct a study from the Schools Division Superintendent of the Division of Taguig City and Pateros. After the permission was granted, the researcher made a request to the school principals of the research locale. After getting the teacher-respondents' consent, the researcher informed the respondents about the current activity of the study before the actual survey with the teacher-respondents. The data were retrieved personally by the researcher to ensure that all of the survey responses were collected. The data from the questionnaire were

tallied, tabulated, analyzed, and interpreted. After the survey questionnaire was administered, all the data gathered by the researcher were collected, tallied, and tabulated for statistical analysis and for fixing of tabular presentation. The data were also interpreted and analyzed as bases of making the conclusion and recommendations.

Results and Discussions

Research Question 1: What is the demographic profile of the respondents in terms of position, length of service, highest educational attainment, and relevant seminars and trainings on research?

Table 1. Profile Distribution of the Respondents in terms of Position

Position	Frequency	Percent (%)
1. Teacher I	87	39.73
2. Teacher II	63	28.77
3. Teacher III	52	23.74
4. Master Teacher I	13	5.94
5. Master Teacher II	4	1.83
Total	219	100.0

Table 1 presents the profile of teacher-respondents in terms of position. Based on the data, the majority of the teacher-respondents are Teacher 1 with 87 or 39.73%; followed by 63 or 28.77% are Teacher 2; while there is only 13 or 5.94% who are Master Teacher 1; and 4 or 1.83% are Master Teacher 2.

It can be generalized from the result that majority of the teachers who participated in the study were new teachers or Teacher 1 while there is only 4 who held the highest position which is Master Teacher 2. It can also be inferred from the result that the majority of the teachers who participated in the study are newly hired and beginning teachers who are in the entry level, and teachers who have just been in the teaching service for not less than 5 years.

According to Demetrio (2019), in general, teaching can be viewed as a relatively stable career with strong job security especially if teachers are already in high designation or position. The higher position you have, the higher salaries you get and the more motivated teachers to work hard. However, in the Philippines, if teachers are already Master Teachers (i.e., from Master Teacher 1-3), the higher expectations given to you to accomplish higher levels of tasks like engaging into research writing.

This is also supported by DepEd (2023), one of the criteria for promotion in Master Teacher 1 and 2 under criterion D is initiated or headed or participated in educational research.

Table 2. Profile Distribution of the Respondents in terms of Length of Service

Length of Service	Frequency	Percent (%)
1. 1 to 5 years	69	31.51
2. 6 to 10 years	67	30.59
3. 11 to 15 years	38	17.35
4. 16 to 20 years	21	9.59
5. 21 to 25 years	15	6.85
6. 26 to 30 years	8	3.65
7. 31 to 35 years	1	0.46
Total	219	100.0

Table 2 indicates the profile of teacher-respondents in terms of length of service. Based from the result, majority of the teacher-respondents or 69 out of 219 which is equivalent to 31.51% have been in the service for 1 to 5 years; followed by 67 equivalent to 30.59% have been teaching for 6 to 10 years. Meanwhile, 8 or 3.65% of the teacher-respondents have been teaching for 26 to 30 years while there is only or 0.46% who has been in the service for 31 to 35 years.

It can be deduced from the result that majority of the teacher-respondents are still new in the service, they've just been hired, and they've just been teaching for less than five years and the longest in the service is 31-35 years which is in the retirement period already.

Heathfield (2020) emphasized the importance of employee longevity or length in service. The service award is a valuable component of an organization's overall employee recognition efforts. School leaders should need to understand, value, and appropriately utilize the service award in formal employee recognition mix. A service award in your formal employee recognition mix. A service award is an opportunity for an organization to recognize an employee for his or her longevity or tenure with the organization. A service award comes in many variations as does the approach an organization uses to recognize an employee with a service award.

Table 3. Profile Distribution of the Respondents in terms of Highest Educational Attainment

Highest Educational Attainment	Frequency	Percent (%)
1. Bachelor's Degree Holder	60	27.40
2. With Units in Masters	101	46.12
3. Master's Degree Holder	46	21.00
4. With Units in Doctoral	9	4.11
5. Doctoral Degree Holder	3	1.37
Total	219	100.0

Table 3 presents the profile of teacher-respondents in terms of highest educational attainment. It can be seen from the data that majority of the teacher-respondents or 101 which is equivalent to 46.12% have held master's units; followed by 60 which is equivalent to 27.40% who are bachelor's degree holder. On the other hand, 9 or 4.11% who have units in doctoral, while there are only 3 which is equivalent to 1.37% who are doctoral degree holder.

It can be deduced from the data that there is a need to encourage teachers to pursue their graduate studies given that only 3 or 1.37% had finished their doctorate degree.

This is supported by National Teachers' College (2019) by agreeing that earning master's degree provides specialized and advantageous knowledge that can help teachers enhance their expertise and credibility in the field. Aside from that, educators become more competent and competitive in a chosen career. Obtaining master's degree will also develop current skill and gain new skills that can also be used in different industries.

Table 4. Profile Distribution of the Respondents in terms of Relevant Trainings on Research

Trainings on Research	Frequency	Percent (%)
1. How to Write a Better Research Introduction	28	12.78
2. Writing a Research Title	115	52.51
3. Writing a Review of Related Literature and Studies	24	10.96
4. Research Methods	17	7.76
5. Presentation, Analysis, and Interpretation of Data	13	5.94
6. How to Write a Research Instrument	10	4.57
7. Crafting a Research Output	12	5.48
Total	219	100.0

Table 4 shows the profile of the teacher-respondents in terms of relevant trainings attended on research. Based on the data, majority or 115 equivalent to 52.51% have attended trainings related to writing a research title; followed by 28 which is equivalent to 12.78% have attended trainings on how to write a better research introduction. Only 12 or 5.58% of the teacher-respondents have attended trainings on crafting a research output; while unfortunately only 10 or 4.57% of the teacher-respondents have attended trainings on how to write a research instrument.

It can be deduced from the data that most of the teacher-respondents have attended very few trainings on writing a research instrument and crafting a research output which means that the Division of Taguig City and Pateros specifically the Research and Planning Unit needs to give priority to crafting more research trainings to develop and enhance the teachers' skills in crafting research output and writing a research instrument.

In the Division of Taguig City and Pateros, schools were instructed to include research as one of the topics to be discussed during in-service trainings and Learning Action Cells (LAC) sessions. This is to enhance teachers' research writing skills in preparation for the annual Festival of Action Research.

SEAMEO Searca (2022) conducted an online training on research designs and methods for higher education institutions in the Philippines on February 14-March 11, 2022 via SOLVE platform. This virtual training workshop covered quantitative and qualitative research designs including the appropriate tools and procedures to analyze data generated from them. Quantitative research designs will particularly focus on experiments and survey research while qualitative research designs will include narrative research, phenomenology, case studies, grounded theory, ethnography, and action research. Since the intended participants are expected to do their own research, a thorough discussion of the techniques, coupled with hands-on exercises, for these quantitative and qualitative research designs are necessary. Applications of these techniques shall be illustrated using a wide array of research problems considering that the participants belong to a broad range of disciplines.

Research Question 2: What is the level of research writing skills of the respondents in terms of formulation of research problem, data analysis and interpretation, research process, and recommendation and output?

Table 5. Assessment of the Level of Research Writing Skills of the Respondents in terms of Formulation of Research problem

Indicators (I am...)	Mean	Verbal Interpretation
1. Ensuring that the main problem is aligned to the title of the study	4.22	Highly Capable
2. Stating specific problems in questions.	4.12	Capable
3. Formulating problems that are achievable and researchable and whose answers help achieve the objectives of the study.	4.05	Capable
4. Finding the correlations and differences of research variables in the problems.	3.95	Capable
5. Formulating problems using 5Ws and 1H.	4.01	Capable
Over-all Mean	4.07	Capable

Based from table 5, the average weighted mean is 4.07. This means that the respondents' assessment on their level of research writing skills in terms of formulation of research problems is capable. It can be seen from the table that the teacher-respondents assessed that in these indicators, they are capable.

The teacher-respondents said that they are highly capable in ensuring that the main problem is aligned to the title of the study. The teacher-respondents, on the other hand, are capable of formulating problems using 5Ws and 1H, and finding the correlations and differences of research variables in the problems.

Real (2022) conducted a research assessing the competency level of the research students in writing their research papers. Results revealed that students had difficulty in citing related literature and studies; writing the research questions in the Statement of the Problem; interpreting data; and formulating the research title. The recalibration of the research curriculum and integration of research parts with other subjects are recommended.

Table 6. Assessment of the Level of Research Writing Skills of the Respondents in terms of Data analysis and Interpretation

Indicators (I am...)	Mean	Verbal Interpretation
1. Providing interpretation to the tabulated data using the appropriate format and style	3.83	Capable
2. Presenting analysis to the interpretation of the tabulated data according to how the interpretation was presented.	3.78	Capable
3. Showing interpretation and analysis in orderly and organized manner and not in a repetitive and wordy style.	3.80	Capable
4. Writing analysis and interpretation with supporting authors and previous studies.	3.82	Capable
5. Analyzing and interpreting data from indicators with highest scores to lowest.	3.78	Capable
Over-all Mean	3.80	Capable

Based from table 6, the average weighted mean is 3.80. This means that the respondents' assessment on their level of research writing skills terms of presentation is capable.

The teacher-respondents said that they are capable in all the indicators of research writing skills pertaining to data analysis and interpretation.

The findings stated that they are capable in providing interpretation to the tabulated data using the appropriate format and style, and writing analysis and interpretation with supporting authors and previous studies. Meanwhile, they are also capable in presenting analysis to the interpretation of the tabulated data according to how the interpretation was presented, and analyzing and interpreting data from indicators with highest scores to lowest.

Calzon (2024) defines data interpretation as the process of using diverse analytical methods to review data and arrive at relevant conclusions. The interpretation of data helps researchers to categorize, manipulate, and summarize the information in order to answer critical questions.

The importance of data interpretation is evident, and this is why it needs to be done properly. Data is very likely to arrive from multiple sources and has a tendency to enter the analysis process with haphazard ordering. Data analysis tends to be extremely subjective. That is to say, the nature and goal of interpretation will vary from business to business, likely correlating to the type of data being analyzed. While there are several types of processes that are implemented based on the nature of individual data, the two broadest and most common categories are "quantitative and qualitative analysis."

Table 7. Assessment of the Level of Research Writing Skills of the Respondents in terms of Research Process

Indicators (I am...)	Mean	Verbal Interpretation
1. Following the ethical standards and making sure that I follow the protocols in research writing.	4.03	Capable
2. Choosing the respondents using appropriate sampling technique and right formula to get the sample size.	3.94	Capable
3. Showing interpretation and analysis in orderly and organized manner and not in a repetitive and wordy style ensuring that the research instrument to be used either standardized or researcher-made is validated for reliability.	3.91	Capable
4. Citing literature and studies properly using the current APA style and format to avoid plagiarism.	4.08	Capable
5. Following the research format and style set by the university.	4.09	Capable
Over-all Mean	4.01	Capable

Table 7 shows that the average weighted mean is 4.01. This means that the respondents are capable on their level of research writing skills in terms of research process.

The teacher-respondents said that they are capable in following the research format and style set by the university, and citing literature and studies properly using the current APA style and format to avoid plagiarism.

Furthermore, they are also capable in ensuring that the research instrument to be used either standardized or researcher-made is validated for reliability, and citing literature and studies properly using the current APA style and format to avoid plagiarism.

Research quality has always been the main concern of every academic institution. To promote quality research papers, the research writing process should be considered. As the students' research outputs are crucial, keeping track of their performance is a key ingredient in the quality of research papers. As consumers and readers of research, students are valuable sources of information to quality improvements. Students today dread the word research in their academic years. It was reported that students have challenges in writing a full research paper (Tabuena, 2020), and writing issues are due to lack of writing skill and lack of confidence in writing research papers (Wilang et. al., 2018).

Table 8. Assessment of the Level of Research Writing Skills of the Respondents in terms of Recommendation and Output

Indicators (I am...)	Mean	Verbal Interpretation
1. Writing recommendation based on the conclusion made after presenting the summary of results of the study.	3.87	Capable
2. Making recommendations that are compelling and persuasive so that the intended organization will move and take actions.	3.82	Capable
3. Making recommendations for future research endeavours to confirm or negate the results of the study.	3.79	Capable
4. Crafting output highlighting plans, programs, and activities to address the weaknesses of the study.	3.74	Capable
5. Formulating research output that can be emulated and adopted by both the Department of Education (DepEd) and the Division of Taguig City and Pateros in their future plans and projects relevant to the study.	4.01	Capable
Over-all Mean	3.85	Capable

Table 8 reveals the assessment of the respondents in the level of research writing skills in terms of recommendation and output. The average weighted mean is 3.85.

Based on the result, the teacher-respondents' assessments of the indicators of recommendation and output are all highly capable.

The teacher-respondents said that they are capable of formulating research output that can be emulated and adopted by both the Department of Education (DepEd) and the Division of Taguig City and Pateros in their future plans and projects relevant to the study, and writing recommendation based on the conclusion made after presenting the summary of results of the study. Similarly, the teacher-respondents said that they are also capable of making recommendations for future research endeavors to confirm or negate the results of the study, and crafting output highlighting plans, programs, and activities to address the weaknesses of the study.

According to Edubirdie (2024), the conclusion and recommendations sections are crucial components of a research paper. They mark the end of your research, leave a lasting impression on your readers, and should be approached with great care. No wonder many students search for information about how to write recommendations in research papers. Explore this comprehensive guide to infuse your content with thoughtfulness and coherence, thereby elevating the impact of your research paper.

Research Question 3: What are the challenges encountered by the respondents in research writing?

Table 9. Challenges Encountered by the Respondents in Research Writing

Indicators	Mean	Verbal Interpretation	Rank
1. Selecting the topic and making the title suitable for a specific interest in research.	4.29	Very Serious	1
2. Identifying and formulating the right problem in research.	4.07	Serious	3
3. Identifying the research gap for a research background.	4.11	Serious	2
4. Elaborating research niches(research importance) for a research background	3.93	Serious	4
5. Differentiating research niches(research importance) and significance	3.91	Serious	5
6. Selecting an appropriate research method for a selected research issue.	3.90	Serious	6.5
7. Differentiating data and data resources.	3.88	Serious	8
8. Determining the sample in terms of considering an adequate or representative sample.	3.85	Serious	9
9. Finding an appropriate instrument to collect research data.	3.90	Serious	6.5
10. Difficulty in determining the scale of a questionnaire.	3.83	Serious	10

Table 9 reflects the challenges encountered by the teacher-respondents in research writing. Based on the data, selecting the topic and making the title suitable for a specified interest in research ranked 1st with a mean of 4.29 interpreted as 'Very Serious' which means that the teacher-respondents found this indicator as the most challenging for them in research writing; followed by identifying the research gap for a research background with a mean of 4.07 interpreted as 'Serious'. Meanwhile, the two least challenging indicators as assessed by the teacher-respondents include: determining the sample in terms of considering an adequate or representative sample which is on the 9th place with a mean of 3.85 interpreted as 'Serious', and difficulty in determining the scale of a questionnaire which is on the 10th place with a mean of 3.83 interpreted as 'Serious'.

A problem like "lack of time due to workloads assigned to them" conforms to Vásquez's (2018) findings that heavy teaching loads are why teachers do not do research. It is also supported by Ellis & Loughland (2018) that lack of time and time pressures relative to classroom teaching and doing research restricted the teachers in Singapore and NSW from having excellent and quality research studies. At present, this problem is still experienced by the public-school teachers despite the existence of the law like Philippine Civil Service Commission (CSC) Resolution No.080096 issued in 2008, that teachers are required to render six (6) hours of actual classroom teaching per day within the school premises, while the remaining two (2) hours be utilized to doing teaching-related tasks outside the school premises ("DepEd continues to reduce teachers' workload," 2020).

Research Question 4: Is there a significant relationship between the teachers' level of research writing skills when the respondents are grouped according to their profile.

Table 10. Relationship Between the Assessment of the Respondents on the Level of Research Writing Skills and their Profile in terms of Position

Components	Chi-Square Value	p-value	Decision	Decision
1. Formulation of Research Problems	1.114	.001	Reject H_0	Significant
2. Data Analysis and Interpretation	1.326	.260	Accept H_0	Not Significant
3. Research Process	1.256	.292	Accept H_0	Not Significant
4. Recommendation and Output	1.188	.325	Accept H_0	Not Significant

Table 10 shows the relationship between the assessment of the respondents on the level of writing skills and their profile in terms of position. Based on the data, only one (1) indicator of teachers' level of writing skills which is formulation of research problem is significantly related to their position as indicated by chi-square values $X^2=1.114$. This means that the teachers' research writing skill in formulating research problems is related to their teaching position. This is true with the need for master teachers to produce at least one (1) action research every year as one of their duties and responsibilities. Meanwhile, all three (3) indicators are not related to their position as indicated by chi-square values; Data Analysis and Interpretation $X^2=1.326$; Research Process $X^2=1.256$ and Recommendation and Output $X^2=1.188$ respectively which are all higher which are all higher than the p-values .260, .292, and .325 respectively. It can be concluded that the teacher's position is not necessarily significantly related to their research writing skills in data analysis and interpretation, research process, and recommendation and output.

Marushkevych et.al. (2022) define research competence as an important component of the specialist's professionalism, as well as a condition of its development and implementation, the readiness of the future specialist for professional activity. It is no coincidence that one of the objectives of higher education is to prepare future specialists for research activities. Involving students and teachers in fundamental research will not only preserve well-known scientific schools but also raise a new generation of scientists. They added that research competence is the basis for the development of intellectual, communicative, and design skills, and develops the critical thinking, and creative abilities of students. Research competence should be considered a key competence. The main function of educational and research activities and their results is the intensification of students' cognitive activity, the development of the desire to learn and transform themselves, and the surrounding reality according to the laws of scientific research. Research knowledge and skills are one of the main characteristics of the level of a future specialist's professional maturity.

Table 11. Relationship Between the Assessment of the Respondents on the Level of Research Writing Skills and their Profile in terms of Length of Service

Components	Chi-Square Value	p-value	Decision	Decision
1. Formulation of Research Problems	1.928	.091	Accept H_0	Not Significant
2. Data Analysis and Interpretation	.963	.458	Accept H_0	Not Significant
3. Research Process	.920	.487	Accept H_0	Not Significant
4. Recommendation and Output	2.009	.009	Reject H_0	Significant

Table 11 indicates the relationship between the profile of the respondents and their level of research writing skills in terms of length of service. Based on the data, only Recommendation and Output with chi-square value $X^2=2.009$ is significantly related to the teacher's length of service. This means that the teachers' length of service is significantly related to their research writing skills in making recommendation and output. On the other hand, the three (3) indicators: formulation of research problems, data analysis and interpretation, and research process are not related to their length of service as indicated by chi-square values $X^2=1.928$, Data Analysis and Interpretation $X^2=.963$, Research Process $X^2=.920$ respectively which are higher than the p-values .091, .458, and .487. This means that the teachers' length of service is not significantly related to their research writing skills in formulation of research problem, data analysis and interpretation, and research process.

Calzon (2024) defines data interpretation as the process of using diverse analytical methods to review data and arrive at relevant conclusions. The interpretation of data helps researchers to categorize, manipulate, and summarize the information in order to answer critical questions.

The importance of data interpretation is evident, and this is why it needs to be done properly. Data is very likely to arrive from multiple sources and has a tendency to enter the analysis process with haphazard ordering. Data analysis tends to be extremely subjective. That is to say, the nature and goal of interpretation will vary from business to business, likely correlating to the type of data being analyzed. While there are several types of processes that are implemented based on the nature of individual data, the two broadest and most common categories are "quantitative and qualitative analysis."

Table 12. Relationship Between the Assessment of the Respondents on the Level of Research Writing Skills and their Profile in terms of Educational Attainment

Components	Chi-Square Value	p-value	Decision	Decision
1. Formulation of Research Problems	.689	.633	Accept H ₀	Not Significant
2. Data Analysis and Interpretation	1.149	.345	Accept H ₀	Not Significant
3. Research Process	.729	.605	Accept H ₀	Not Significant
4. Recommendation and Output	1.005	.423	Accept H ₀	Not Significant

Table 12 presents the relationship between the profile of the respondents and their level of research writing skills in terms of educational attainment. It can be reflected from the data that all the four (4) indicators of their level of research writing skills are not significantly related to their educational attainment as indicated by chi-square values $X^2=.689$, $X^2=1.149$, $X^2=.729$, and $X^2=1.005$ respectively which are higher than the p-values .633, .345, .605, and .423 respectively.

It can be deduced from the data that teachers' educational attainment does not necessarily affect their ability or skills to be skillfull in formulating research problems, drawing sata analysis and interpretation, following research process, and making recommendation and output.

Research is integral to any learning institution in securing learning goals. An institution's inability to produce and publish high-quality research is a strong indication that higher learning is not supported (Padagas & Hajan, 2020). Research quality has always been the main concern of every academic institution. To promote quality research papers, the research writing process should be considered. As the students' research outputs are crucial, keeping track of their performance is a key ingredient in the quality of research papers. As consumers and readers of research, students are valuable sources of information to quality improvements. Students today dread the word research in their academic years. It was reported that students have challenges in writing a full research paper (Tabuena, 2020), and writing issues are due to lack of writing skill and lack of confidence in writing research papers (Wilang et. al., 2018).

Table 12. Relationship Between the Assessment of the Respondents on the Level of Research Writing Skills and their Profile in terms of Relevant Trainings Attended

Components	Chi-Square Value	p-value	Decision	Decision
1. Formulation of Research Problems	.910	.538	Accept H ₀	Not Significant
2. Data Analysis and Interpretation	1.362	.218	Accept H ₀	Not Significant
3. Research Process	2.778	.000	Reject H ₀	Not Significant
4. Recommendation and Output	.776	.662	Accept H ₀	Not Significant

Based from the data, only the component Research Process is significantly related to the teachers' trainings attended on research as indicated by chi-square value $X^2=2.778$. This means that the teacher's trainings attended on research is significantly related to their research writing skills in research process. Attending trainings on research is a primary source of information on the right processes in conducting research. Therefore, it is a great opportunity for every teacher to attend trainings on research. On the opposite side, the three (3) remaining components such as formulation of research problems, data analysis and interpretation, and recommendation and output are not significantly related to the teachers' trainings attended as shown by chi-square values $X^2=.910$, $X^2=1.362$, and $X^2=.776$ respectively which are higher than the p-values .538, .218, and .662 respectively.

It can be concluded from the data that teachers' trainings attended on research do not necessarily affect their ability or skills to formulate research problem, analyse and interpret data, and make recommendation and output.

According to Edubirdie (2024), the conclusion and recommendations sections are crucial components of a research paper. They mark the end of your research, leave a lasting impression on your readers, and should be approached with great care. No wonder many students search for information about how to write recommendations in research papers. Explore this comprehensive guide to infuse your content with thoughtfulness and coherence, thereby elevating the impact of your research paper.

Additionally, before you start learning how to write recommendations in a research paper, the first thing is to clarify the meaning of this term. It is a significant element in the research paper structure, as it is critical to your discussion section and conclusion. While conducting research and analyzing gathered data, you may come across ideas or results that only partially align with the scope of your research topic. Alternatively, your findings offer possible implications or causal relationships between the aspects not covered in existing research.

Research Question 5: Based on the findings of the study, what research capability training program may be proposed?

A proposed research capability training program aims to capacitate teachers with the needed knowledge and skills in conducting research such as skills in formulating research problems, data analysis and interpretation, research process, and recommendation and output; equip teachers with the different quantitative statistical treatment in conducting research, and recognize the format and style used in conducting research; address challenges encountered in research writing through intensive training from experts in research; and build confidence among teachers in making research through the skills and competencies provided to them by the trainings, meetings, workshops, LAC sessions, and focus group discussions where basics of research-making are talked about and dealt with.

Ethical Considerations

This study followed ethical standards in educational research to protect the rights and welfare of the respondents. Permission to conduct the study was obtained from the Division of Taguig City and Pateros first and thereafter, permission was also asked from the principals of the three (3) subject schools. Informed consent was secured from all participants after explaining the purpose of the study, the procedures involved, and their right to participate voluntarily or withdraw at any time without consequences. Significance of confidentiality and anonymity were explained to the participants. They were also asked if they're willing to publish their names in the paper. Academic records were accessed only with proper authorization and handled in accordance with the Data Privacy Act of 2012 (Republic Act No. 10173). All data collected were used solely for research purposes and stored securely. The researcher first secured an approved letter from the Research Adviser, which served as authorization to conduct the study. This letter was then submitted to the Office of the Schools Division Superintendent to request an Endorsement Letter, which was required to conduct the research to the three (3) subject schools. After obtaining the Endorsement Letter, the researcher sought permission from the school principals of the three (3) subject schools. After getting the principals' permission, the researcher conducted the survey-questionnaire personally but ensured to them about the confidentiality of their responses, that they will be used for research purposes only.

Conclusion

The study concluded that in terms of the teacher-respondents' demographic profile, majority of them are Teacher 1 or newly-hired and beginning teachers, had been teaching for less than 5 years, had masters' units, and attended trainings on research mostly on writing a research title. This means that they have very few trainings attended on some parts of research paper that is challenging to make such as writing a research instrument and crafting a research output. Most of the teacher-respondents' assessment on their level of research writing skills is capable which means that they need to exert more effort to be highly capable in research writing. Meanwhile, they consider selecting the topic and making the title suitable for a specified interest in research as the most challenging for them. This means that they need to attend more trainings on crafting of research titles to enhance their skills. Finally, teachers' educational attainment does not necessarily correlate to teachers' demographic profile.

Recommendations

Based on the findings, the study recommended that an intensive training on how to formulate research problems and find correlations and differences of research variables in the research problems is a necessity; a separate training and learning session must be conducted to capacitate teachers in crafting research instrument and the processes involved in making the research instrument reliable and valid; the Division of Taguig City and Pateros must address the difficulty of the teachers in crafting research output by providing and sending teachers to trainings solely for crafting research output and its compositions; more trainings and seminars relevant to crafting research titles must be developed so that teachers will have knowledge on how to choose and craft research titles; the research capability training program prepared by the researcher may be tried and adapted by the Division of Taguig City and Pateros and the Department of Education (DepEd) in general to see its workability and effectiveness; and this study can be replicated and the future researchers may embark on a more comprehensive study utilizing more schools and respondents to negate or affirm the findings of the current study.

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